

AM Partners Consulting Company
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DOMESTIC PERCEPTION OF ARMENIAN PHARMACEUTICAL PRODUCTS: 2ND SURVEY



United States Agency for
International Development

CAPS

Competitive Armenian Private
Sector

**MPI
UNION**

Medical Producers and Importers
Union



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1 INTRODUCTION

The *Market survey of users' perception and attitude towards the Armenian pharmaceutical products* has been conducted within the frames of **Competitive Armenian Private Sector Project**¹ (henceforth CAPS) financed by the United States Agency for International Development (henceforth USAID). The client is **Nathan Associates Inc. AB**, the implementing entity of the CAPS Project. The survey has been conducted by **AM Partners Consulting Company**² during the period of December 2010-February 2011.

1.1 SURVEY OBJECTIVES

This is the second similar survey initiated by the CAPS Project. The first survey has been conducted in April-July of 2008. The year of 2008 was the period of intensifying CAPS Project's intervention in the pharmaceutical sector in Armenia. Those interventions include various sub-projects for supporting the pharmaceutical industry, including:

1. *Institutional development activities*, within the frames of which the Union of Medical Producers and Importers of Armenia has received technical assistance;
2. *Technical support programs*, within the frames of which pharmaceutical enterprises have received grants, professional assistance, have participated in trainings, etc.;
3. *General marketing programs*, which were meant to contribute to the promotion of Armenian pharmaceutical production in the market, raise the awareness of Armenian pharmaceutical products among customers and consumers, form positive attitude and perception.

The 2008 and 2011 surveys of users' perception towards Armenian pharmaceutical products were conducted within the third group of the CAPS Project interventions. The survey of 2008 helped to understand the awareness level and attitude of users towards Armenian pharmaceutical products at the inception phase, i.e. the baseline situation. This survey of 2011 answers the same questions at the final phase of the CAPS Project.

This survey should not be considered as an assessment of total CAPS Project, especially because the results of the survey do not answer the question of how the change of users' awareness or attitude can be attributed to the interventions of CAPS Project. This is a market survey. Its importance is in offering state of the art information to Armenian pharmaceutical enterprises, their union and even to the importers about the users' awareness and attitude towards Armenian pharmaceutical products. In fact, the users of this survey results have the opportunity to compare the data of 2008 about the awareness and attitude of the customers and consumers with the data of 2011.

This survey is important from another point of view as well. Recently *Healthy nation, healthy economy* campaign has been concluded by the CAPS Project. This event included informative campaign towards raising the awareness of Armenian pharmaceutical products among users. Various measures have been conducted within the informative campaign, such as receptions and presentations, broadcasts, press conferences, publications in the press and Internet, trainings for doctors/physicians in Yerevan, Gyumri and Vanadzor. The current survey included interviews with doctors who have participated in the trainings, as well as with those who haven't participated. It is possible to form an opinion about the efficiency and influence of the campaign based on difference of their awareness and attitude towards

¹ www.caps.am

² www.ampartners.am

Armenian pharmaceutical products. That is especially important concerning the implementation of similar assessments in future.

Another important problem addressed by this survey is the change of main indicators of Armenian pharmaceutical enterprises' operation for the period of 2008-2011. It is supposed that assistance provided to Armenian pharmaceutical enterprises during recent 3-4 years had its positive effects and influence on their operation. On the other hand, it should be taken into consideration that the survey period coincides with the global financial crisis, which had its negative impact on whole Armenian economy. In 2009 the GDP declined by 14.4%, exports reduced by 30% and poverty increased reaching 34.1%. These problems certainly had their negative impact on the Armenian pharmaceutical industry, as well. One conclusion can be made: it is really difficult to estimate how the positive results of the CAPS Project interventions have mitigated negative impacts of the crisis.

This survey of users' perception and attitude towards Armenian pharmaceutical products has the following purposes:

1. Assess the awareness level, perception and attitude peculiarities towards Armenian pharmaceutical products among the users as of the beginning of 2011;
2. Evaluate the dynamics of the users' awareness and attitude by comparing the data of 2011 with those of 2008;
3. Evaluate the importance and efficiency of *Healthy nation, healthy economy* Campaign implemented by the CAPS Project in 2010;
4. Measure dynamics of the operation of Armenian pharmaceutical enterprises for 2008-2010.

1.2 SURVEY METHODOLOGY

1.2.1 Main definitions

The main two definitions, which are often met in the current survey's report, are **pharmaceutical product** and **pharmaceutical product users**.

Pharmaceutical product

It has already been mentioned in the first report, that industry stakeholders and participants use various definitions for targeted products, such as "pharmaceutical products", "drugs", "medicine", "medicament", etc. Without going into details of their differences, we have to state that in all the cases we speak about pharmaceutical products and not about other medical products related to patient care, sanitary-hygienic products. Thus, in the context of this survey:

- ! **Terms pharmaceutical products, drugs, medicine, medicament should be understood only as pharmaceuticals - a product group with all its types - pills, tablets, drops, flasks, liquids for injections, in solid, adhesive, liquid or gaseous state.**

Pharmaceutical product users

Within the context of this survey respondents are all users of pharmaceutical products, regardless the purpose of using them. In compliance with this logic the following target groups were defined as objects of this survey.

1. **Armenian residents (citizens)** - Individuals, who buy (or already bought) pharmaceuticals, regardless from the purpose of use: either for own use or for others. To somehow separate this group in the report the term "consumers" has been introduced.
2. **Physicians** - The survey addressed physicians from any type of clinics. Clinics include hospitals, ambulances - polyclinics, dental clinics, which buy pharmaceuticals to supply their main activity. In clinics physicians who prescribe pharmaceuticals directly deal with pharmaceutical turnover. They are also considered as users of pharmaceuticals. These physicians comprise the second group of respondents of the survey. This group has been into two subgroups: a) physicians, who have not participated in activities of *Healthy nation, healthy economy* Campaign, and b) physicians who have participated (so called *to be observed*). This was the method of evaluating the influence of awareness raising campaign.
3. **Pharmacists** - Pharmacies are intermediary and linking chain between pharmaceutical producers/importers and final consumers (population). In the process of pharmaceuticals' circulation the pharmacists have some similarities with physicians. Besides being a simple seller of pharmaceuticals they sometimes also consult their clients and direct them. Thus, in this survey they are considered as 3rd group respondents.

In the context of the current report all 3 mentioned groups are addressed as *pharmaceutical product users*.

1.2.2 Technical approach to the study

Considering the fact of using results of the current survey for comparison of data with those of 2008, the same approaches have been applied as it was in the first survey. First of all, it concerns the **questionnaires**. We have used the same questionnaires complementing them with several questions about *Healthy nation, healthy economy* Campaign. Separate questionnaires have been used for each group of users. These questionnaires included both general (common) and group-specific questions.

During the survey **face-to-face interviewing** tool was adopted in order to collect data from respondents. Although significant part of respondents (physicians and pharmacists) asked to send the questionnaires, so they can fill them in and send back, the surveyors remained loyal to adopted methodology during the entire period of data collection. All questionnaires have been filled during "live" interviews. Face-to-face interviews allowed the surveyors collect additional information that was left out of the questionnaires, but has really applicable value. The major part of this valuable information has been incorporated into the report.

In case of consumers, given the purpose of the assignment, the surveyors interviewed not random people, but actual procurers of pharmaceuticals. The interviews have been conducted inside of pharmacies or in surrounding areas. Respondents were chosen from customers going out of pharmacies every 30-40 minutes. This allowed speaking with actual/real users of pharmaceutical products, at the same time ensuring randomness in sampling.

Standardized questionnaires have been applied for surveying pharmaceutical enterprises, which helped to obtain structured information and make comparisons. This information has been collected through face-to-face interviews, too.

1.2.3 Survey geography

The survey geography was defined by the client. Data required for this survey was collected from Yerevan and two regions of Armenia, i.e. Shirak and Lori. This choice was made based on geography of *Healthy nation, healthy economy* Campaign. Survey has been implemented in the regional centers, i.e. in Gyumri and Vanadzor.

1.2.4 Survey sampling

The sampling of respondents is based on the principle of forming substantially representative sample from targeted groups (sample frame) of the survey. For the calculation of the sample size the absolute figures of the targeted groups have been adopted as bases. For instance, in case of consumers it was population number; in case of clinics and pharmacies it was the number of institutions or pharmacies in covered geographic area. Survey samples of each target group of respondents have been based on the total number of respective general population. Sample sizes were decided in a way to allow claiming the following:

1. In case of consumers there is 95% confidence that the survey results correctly represent the general population of consumers; moreover, sampling error does not exceed 5%;
2. In case of clinics and pharmacies there is 95% confidence that survey results are true for all clinics and pharmacies, moreover, sampling error does not exceed 10%.

In compliance with this logic the following sample has been formed:

Table 1 - The sample size, target groups and geographic distribution

Sampling according to target groups	Sample size according to geographic distribution			Total
	Yerevan	Shirak (Gyumri)	Lori (Vanadzor)	
Consumers	252	66	66	384
Physicians *	43	14	14	71
Pharmacists	76	5	4	85
Total	371	85	84	540

(*) - Physicians that have not participated in trainings

As it has been already mentioned, in order to evaluate the efficiency of *Healthy nation, healthy economy* Campaign, additional interviews were implemented with the physicians who have participated in specific activities of the Campaign. Interviews were conducted with 30 persons, which were equally distributed between Yerevan, Gyumri and Vanadzor.

The survey of pharmaceutical enterprises has been conducted with 9 out of 17 enterprises. The largest pharmaceutical enterprises of Armenia were included and addressed.

2 USERS' PROFILE

The current survey had pre-defined orientation. It was conducted among those users, who directly deal with different stages of pharmaceuticals' circulation. They are consumers who definitely buy pharmaceutical products, physicians who prescribe pharmaceuticals and pharmacists who sell pharmaceuticals. These respondents have not been identified randomly but selectively. The possible shortcoming of this method, which took place during the 2008 survey, too, is the non-representativeness of both samples. However, the results of the survey prove that presence of all groups of population characterized by gender and age, educational level, residence and employment, has been ensured.

Sufficient representativeness was also ensured in case of physicians and pharmacists, again characterized by gender and age, profession and work experience. Profiles of pharmaceutical product users involved in the current survey are presented further.

2.1 CONSUMERS' PROFILE

Table 2 - Consumers' profile who have participated in the survey

1. Gender distribution

Total, of which →	Male	Female
100%	35%	65%

2. Age distribution (years)

Total, of which →	< 25	26-40	41-60	> 61
100%	21%	37%	33%	10%

3. Educational level

Total, of which →	No education	Secondary	Secondary vocational	Incomplete higher education	Higher education	Degree
100%	0%	28%	15%	7%	48%	2%

4. Residence

Total, out of which →	Yerevan	Gyumri	Vanadzor
100%	66%	18%	16%

5. Professions (distribution of 384 interviewed people)

Profession	Quantity	Profession	Quantity	Profession	Quantity
<i>Economist</i>	43	<i>Manager</i>	3	<i>Biochemist</i>	1
<i>Pedagogue</i>	29	<i>Hairdresser</i>	3	<i>Gas supplier</i>	1
<i>Engineer</i>	24	<i>Commodity specialist</i>	2	<i>Librarian</i>	1
<i>Physician</i>	21	<i>Seller</i>	2	<i>Cosmetologist</i>	1

Lawyer	16	Orientalist	2	Electrician	1
Accountant	13	Agronomist	2	Signal officer	1
Philologist	12	Mentor	2	Confectioner	1
Linguist	12	Tailor	2	Sportsman	1
Artist	8	Environmental specialist	2	Policeman	1
Programmer	8	Translator	2	Power specialist	1
Craftsman	6	Logopedist	2	Director	1
Cook	5	Cybernetics	2	Sociologist	1
Designer	4	Psychologist	2	Politician	1
Biologist	4	Mathematician	2	Chemist	1
Technologist	4	Specialist of international relations	2	Pilot	1
Pharmaceutist	3	Constructor	2	Operator	1
Diplomat	3	Historian	2	Don't have profession/didn't answer	108
Journalist	3	Driver	2	Total	384
Physicist	3	Veterinary	1		

6. Employment

Total, of which →	<i>Employed</i>	<i>Unemployed</i>
100%	50%	50%

6.1. Fields of employment

Total, of which →	<i>Businessman</i>	<i>State employer</i>	<i>State entity employer</i>	<i>Private entity employer</i>
100%	4%	5%	39%	52%

6.2. Unemployed

Total, of which →	<i>Student</i>	<i>Disabled</i>	<i>Unemployed</i>	<i>Pensioner</i>
100%	17%	1%	66%	16%

7. Family distribution

Total, of which →	<i>1-2 member</i>	<i>3-4 member</i>	<i>5-6 member</i>	<i>7-8 member</i>	<i>9-10 member</i>	<i>11 member</i>
100%	10%	49%	32%	7%	1%	0%

2.2 PHYSICIANS' PROFILE

Table 3 - Physicians' profile who have participated in the survey

1. Gender distribution

Total, of which →	Male	Female
100%	28%	72%

2. Age distribution (years)

Total, of which →	< 25	26-40	41-60	> 61
100%	1%	38%	49%	11%

3. Educational level

Total, of which →	Secondary vocational	Higher education
100%	3%	97%

4. Degree

Total, of which →	Don't have	Clinical residency	Associate professor	Candidate of science	Professor
100%	89%	3%	1%	4%	3%

5. Professions (distribution of 71 interviewed)

Profession	Quantity	Profession	Quantity	Profession	Quantity
Cardiologist	10	Endocrinologist	2	Maxillofacial surgeon	1
Therapist	8	Infectionist	2	Dermato -venereologist	1
Neurologist	8	Psychologist	2	Nephrologist	1
Oculist	5	Reanimatologist	2	Pediatrician	1
Dentist	4	Surgeon	2	Dermatologist	1
Physician	4	Burn injury physician	1	Rheumatologist	1
Gynecologist	4	Vascular surgeon	1	Sexologist	1
Grammatologist	3	Audiologist	1	Sonographer	1
Forensic expert	2	Gastric etiologist	1	Physiotherapist	1
				Total	71

6. Work experience (years)

Total, of which →	< 5	6-10	11-15	16-20	21-25	26-30	31-35	36-40	> 41
100%	11%	13%	17%	14%	11%	14%	4%	11%	4%

2.3 PHARMACISTS' PROFILE

Table 4 - Pharmacists' profile who have participated in the survey

1. Gender distribution

Total, of which →	Male	Female
100%	20%	80%

2. Age distribution (years)

Total, of which →	< 25	26-40	41-60	> 61
100%	28%	48%	18%	6%

3. Educational level

Total, of which →	Secondary vocational	Higher education
100%	38%	62%

4. Degree

Total, of which →	Don't have	Clinical residency	Associate professor	Candidate of science	Professor
100%	96%	1%	-	1%	2%

5. Professions

Total, of which →	Pharmacists	Pharmaceutical chemists	Physician
100%	39%	58%	4%

6. Work experience (years)

Total, of which →	< 5	6-10	11-15	16-20	21-25	26-30	31-35	36-40	> 41
100%	47%	20%	8%	0%	13%	2%	1%	4%	5%

3 AWARENESS LEVEL OF PHARMACEUTICAL PRODUCT USERS

3.1 USERS' AWARENESS LEVEL OF ARMENIAN PHARMACEUTICAL PRODUCTS

The first survey of pharmaceutical product users showed that it is impossible to consider all types of pharmaceutical product users as one group. They have different reasons for using pharmaceutical products, which creates differences in their awareness level. That is why; all the questions have been analyzed by separate target groups. It helps to understand the profiles of various groups, their roles in the pharmaceutical product circulation.

3.1.1 Consumers' awareness level of Armenian pharmaceutical products

Before analyzing the consumers' awareness level of pharmaceutical products, we should consider on every important condition, i.e. for a lot of people pharmaceutical products are not daily consumption item. These products are mostly required in case of illness and the demand for them disappears after successful treatment. Depending on the meaning of the pharmaceutical products, frequency of their usage also differs. There are pharmaceutical products which are often used, and their names are always remembered, such as aspirin, analgin, and ascophen. There are also pharmaceutical products which people may use only 1-2 times in their whole life or don't use at all. The names of such pharmaceutical products people may forget or may not know at all. In short, the healthier a person (or his/her relatives are), the lower is the awareness level of pharmaceutical products.

Another condition: very often people use pharmaceutical products following the prescription or advice of health professionals, i.e. physicians. In such cases, consumers often use the prescribed pharmaceutical product without even knowing its name. As a conclusion, consumers can be conditionally called "unaware" or "relatively unaware" consumer group in comparison with other target groups of the survey.

The results of the survey show that 53% of the consumers could not name any Armenian pharmaceutical product. 47% of the consumers named at least one Armenian pharmaceutical product. If we look at this issue in dynamics, then this is a quite good indicator: in 2008 the same indicator comprised 23%. So called "aware" consumers named 523 pharmaceutical products (one "aware" consumer knows as an average 2.89 Armenian pharmaceutical product). Comparing to the data of 2008, the quantity of aware consumers, as well as their awareness level, have increased.

Top 10 popular pharmaceutical products of Armenian production named by consumers are presented below.

Table 5 - Top 10 pharmaceutical products of Armenian origin named by consumers

Pharmaceutical products	Share of consumers aware of the product type	
	Of total number of consumers	Of number of consumers aware of at least one product
	A	B
1. Aspirin	9.1%	19.3%
2. Ascophen	8.9%	18.8%
3. Paracetamol	6.5%	13.8%
4. Analgin	6.3%	13.3%
5. Narine	5.7%	12.2%
6. Albucide	3.4%	7.2%
7. Escard	3.1%	6.6%

8. Citramon	2.6%	5.5%
9. Iodine	2.3%	5.0%
10. Carvalol	1.8%	3.9%

(A) - Computed based on total number of surveyed consumers (384)

(B) - Computed based on the number of consumers that are aware of at least one Armenian pharmaceutical (47.1%)

Among consumers most popularity is taken from those types of pharmaceutical products that are mainly available in any house. These are mainly pharmaceutical products normally used without physician's prescription or for the first medical aid, which are used as pain relievers (analgetics), and for the purpose of nerves' relaxation, regulating heart work, and blood pressure.

The composition of Top 10 pharmaceutical products has changed in 2011 comparing to 2008. Only 6 out of 2008 Top 10 pharmaceutical products are in the list of 2011. Comparison of two periods is presented below.

Table 6 - Top 10 Armenian pharmaceutical products among consumers in 2008-2011

Awareness rates in 2008		Awareness rates in 2011	
1. Valerian		1. Aspirin	
2. Ascophen		2. Ascophen	
3. Narine		3. Paracetamol	
4. Iodine		4. Analgin	
5. Haw		5. Narine	
6. Motherwort		6. Albucide	
7. Albucide		7. Escard	
8. Analgin		8. Citramon	
9. Chamomile		9. Iodine	
10. Aspirin		10. Carvalol	

From Table 6 we can see that from the Top 10 pharmaceutical products of 2008, spirit extracts have been replaced with *Escard* in the survey of 2011 (which is the mixture of those spirit extracts). Spirit extracts were mainly mentioned by elder citizens, the young mentioned *Escard* meaning spirit extracts.

The change in the composition of Top 10 pharmaceutical products doesn't mean that those pharmaceutical products that were left out from the list of 2011 have lost their popularity. The reason is that during these three years the market of pharmaceutical products has developed, and as a result consumers were informed about new pharmaceutical products or have improved their awareness level comparing to previous years. Table 7 shows the proportional analysis of consumers' awareness of Armenian pharmaceutical products (2008 vs. 2011). The comparison was done for 6 pharmaceutical products, which are in the Top 10 lists of both 2008 and 2011 survey reports.

Table 7 - Change in consumers' awareness level of the most known pharmaceutical products among 2008-2011

Pharmaceutical products	Rates in Top 10			Popularity among consumers					
				A*			B*		
	2008	2011	Change	2008	2011	Change	2008	2011	Change
Ascophen	2	2	=	2.9%	8.9%	↑	12.6%	18.8%	↑
Narine	3	5	↓	2.6%	5.7%	↑	11.5%	12.2%	↑
Iodine	4	9	↓	2.3%	2.3%	=	10.3%	5.0%	↓
Albucide	7	6	↑	1.6%	3.4%	↑	6.9%	7.2%	↑

Analgin	8	4	↑	1.6%	6.3%	↑	6.9%	13.3%	↑
Aspirin	10	1	↑	1.0%	8.9%	↑	4.6%	18.8%	↑

(*) - A and B columns must be understood in a mean as they were presented in Table 2

Table 7 attests the awareness level of Armenian pharmaceutical products has increased among consumers within the period of 2008-2011. It is obvious for 5 out of 6 pharmaceutical products. It can be concluded that the efforts of Armenian pharmaceutical enterprises, NGOs of pharmaceutical field and developing projects (including CAPS Project) have ensured sufficient results.

3.1.2 Physicians' awareness of Armenian pharmaceutical products

Physicians comprise a group of more professional users among pharmaceutical product users. It is an objective approach, as it is directly connected with their professional duties. The exceptional role of physicians in cases of pharmaceutical products prescription and use is recognized by all groups of users, especially by consumers. Thus, physicians' awareness level should be considered as an important factor influencing the circulation of pharmaceutical products.

The results of the survey show that majority of physicians are more or less aware of Armenian pharmaceutical products, and each physician knows at least 6.6 names of pharmaceutical products (4.6 names in 2008). Only 2.8% of the physicians are not aware of Armenian pharmaceutical products (4% in 2008). We should pay attention to the following aspect: physicians know names of not only just pharmaceutical products (Ringer, Enalapril H, Amlodipin, etc), but also groups of pharmaceutical products, i.e. infusion solutions, vitamins, antibiotics. It is not right to present pharmaceutical products and groups of pharmaceutical products in the same list, definitely. However, it was decided to present data without making any changes in it, i.e. without editing. This is right approach especially in a situation where the majority of physicians didn't mention which pharmaceutical products they meant by naming groups of pharmaceutical products they are aware of.

Data of Table 8 shows that physicians are aware of Armenian pharmaceutical products, and in fact their level of awareness has increased comparing to 2008.

The survey was done among physicians of different professions (therapists, surgeons, gynecologists). Each of them is more familiar with those pharmaceutical products, which are more used from their own professional perspective. From this point of view, it is difficult to evaluate the data of Table 8. It will be more objective to evaluate the awareness level of physicians if we divide them into two groups: physicians who have participated in *Healthy nation, healthy economy* Campaign activities, and

Table 8 - Top 10 Armenian pharmaceutical products known among physicians

Physicians who haven't participated in trainings		Physicians who have participated in trainings	
Pharmaceutical products	Awareness level among physicians*	Pharmaceutical products	Awareness level among physicians*
1. Infusion solutions	36.6%	1. Infusion solutions	43.3%
2. Phys. solution	32.4%	2. Ringer	30.0%
3. Ringer	21.1%	3. Phys. solution	26.7%
4. Amlodipin	19.7%	4. Paracetamol	23.3%
5. Narine	16.9%	5. Escard	23.3%
6. Hexiloc	15.5%	6. Amlodipin	23.3%
7. Enalapril H	12.7%	7. Moxicin	20.0%
8. Ceftriaxone	12.7%	8. Vitamins	16.7%
9. Escard	11.3%	9. Ceftriaxone	16.7%
10. Paracetamol	11.3%	10. Narine	13.3%

(*) - Computed based on total number of surveyed physicians

physicians who have not. It turns out that awareness level of Armenian pharmaceutical products is higher among participants of those activities. It can be explained with the fact that trainings were done recently, and participants remember the information they have received well. At the same time, it is obvious that trainings were effective: participants became definitely more aware of Armenian

pharmaceutical products. Awareness level of physicians who have participated in trainings within the Campaign is for 24.7% higher.

If we analyze the results in dynamics, we will have a twofold figure. In order to be sure of it we will compare the list of 2008 Top 10 pharmaceutical products with the list of 2011.

Table 9 - Top 10 Armenian pharmaceutical products among physicians, 2008-2011

Popularity rating in 2008		Popularity ratings in 2011	
1. Infusion solutions	→	1. Infusion solutions	
2. Analgin	→	2. Phys. solution	
3. Lidocaine	→	3. Ringer	
4. Antibiotics	→	4. Amlodipin	
5. Ringer	→	5. Narine	
6. Vitamins	→	6. Hexiloc	
7. Narine	→	7. Enalapril H	
8. Metronidazole	→	8. Ceftriaxone	
9. Phys. solution	→	9. Escard	
10. Ceftriaxone	→	10. Paracetamol	

5 pharmaceutical products, which were listed in 2008, are in the list of 2011 as well, which means that their popularity has increased (see Table 10).

Table 10 - Change in recognition of the Top 10 most known pharmaceutical products among physicians

Pharmaceutical products	Rating in Top 10			Awareness		
	2008	2011	Change	2008	2011	Change
Infusion solutions	1	1	=	35.1%	36.6%	↑
Ringer	5	3	↑	12.2%	21.1%	↑
Narine	7	5	↑	9.5%	16.9%	↑
Phyis. solution	9	2	↑	8.1%	32.4%	↑
Ceftriaxone	10	8	↑	6.8%	12.7%	↑

Pharmaceutical products that are not in the Top 10 list of 2011 (analgin, lidocaine, Metronidazole) have lost their popularity. The list of popular Armenian pharmaceutical products or of those that have lost their popularity is not limited to those mentioned above. Some of the pharmaceutical products had success in the marketing processes, becoming popular, while some has lost their popularity for different reasons, such as debase in quality, affect, wrapping, price and marketing or defeat in competitiveness.

Table 11 - Top 10 Armenian pharmaceutical products among pharmacists

Pharmaceutical products	Popularity level among pharmacists*
1. Amlodipin	54.1%
2. Enalapril H	38.8%
3. Escard	30.6%
4. Taufone	17.6%
5. Lisinopril	12.9%
6. Natrium chloride	11.8%
7. Albucide	9.4%
8. Narine	9.4%
9. Vitamins	8.2%
10. Ciprofloxacin	8.2%

(*) - Computed based on the total number of surveyed pharmacists

3.1.3 Pharmacists' awareness of Armenian pharmaceutical products

Pharmacists comprise a group that is the most aware of Armenian pharmaceutical products. They exceed even physicians by their awareness level. It can be explained by the following way. Physicians are very well informed about the pharmaceutical products that are connected with their specialization, but they can be unfamiliar with other pharmaceutical products. While pharmacists know by heart the pharmaceutical products they sell in their pharmacies. These might include names of hundreds of pharmaceutical products. That is why; pharmacists should be considered not only people who are familiar with pharmaceutical products, but as well as sellers, who know all the products they sell.

Pharmacists have named 469 Armenian pharmaceutical products (each of them has named 5.5 pharmaceutical products in average). Top 10 Armenian pharmaceutical products among pharmacists are shown in Table 11. The list has changed during the last three years (see Table 12). 5 pharmaceutical products have been replaced with new ones, which popularity has increased.

Table 12 - Top 10 Armenian pharmaceutical products among pharmacists, 2008-2011

Popularity rating in 2008		Popularity rating in 2011	
1. Amlodipin	→	1. Amlodipin	
2. Enalapril H	→	2. Enalapril H	
3. Erythromycin	→	3. Escard	
4. Taufone	→	4. Taufone	
5. Naphthyzine	→	5. Lisinopril	
6. Escard	→	6. Natrium chloride	
7. Ringer	→	7. Albucide	
8. Hexiloc	→	8. Narine	
9. Lisinopril	→	9. Vitamins	
10. Pasta Teimurovi	→	10. Ciprofloxacin	

Only 5 Armenian pharmaceutical products are in the Top 10 lists of both 2008 and 2011. The most famous Armenian pharmaceutical product in the pharmacies is Amlodipin. There have been some changes, and 3 pharmaceutical products have lost their popularity (see Table 13).

Table 13 - Popularity change of Armenian pharmaceutical products among pharmacists for 2008-2011

Pharmaceutical products	Rating in Top 10			Awareness*		
	2008	2011	Change	2008	2011	Change
Amlodipin	1	1	=	54.1%	54.1%	=
Enalapril H	2	2	=	42.0%	38.8%	↓
Taufone	4	4	=	33.3%	17.6%	↓
Escard	6	3	↑	18.0%	30.6%	↑
Lisinopril	9	5	↑	15.0%	12.9%	↓

3.2 SOURCES OF INFORMATION ON ARMENIAN PHARMACEUTICAL PRODUCTS AMONG USERS

Analyzing the ways of spreading information about Armenian pharmaceutical products, we found low variety. At the same time, main way of spreading information stands apart, which is presented below.

Chart 1 - The main way of spreading information about pharmaceutical products among users

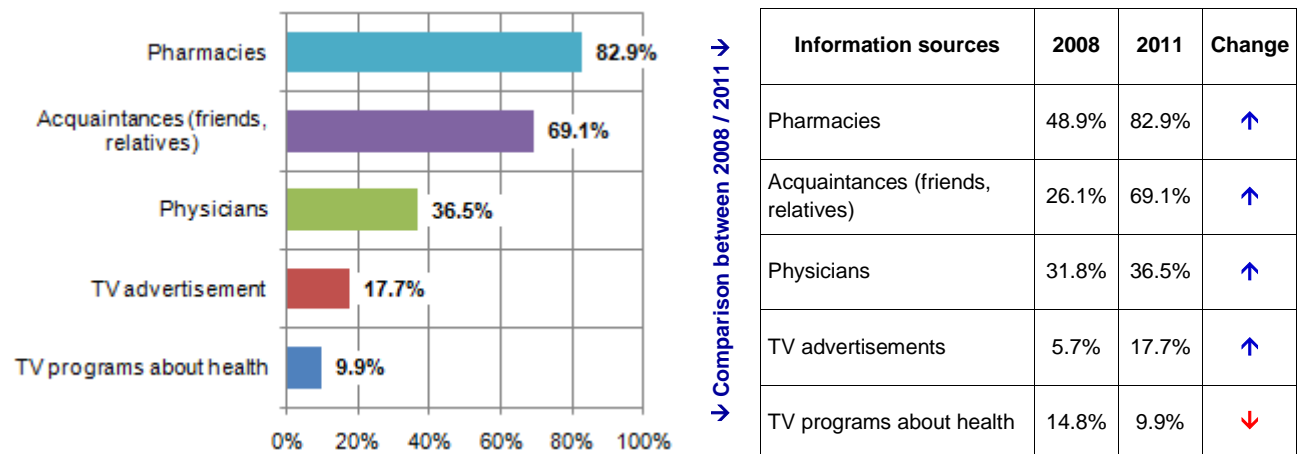


The presented way of spreading information derives from objective circumstances. Each participant of awareness raising activities has its certain connection with the other, where one of them receives information, while the other one gives it.

3.2.1 Awareness sources of Armenian pharmaceutical products among users

Users depend on the information received from physicians and pharmacists when it comes to the matter of using pharmaceutical products. This is legitimate, since they are always in contact with physicians and pharmacists while using pharmaceutical products. This statement is supported by the data presented in Chart 2.

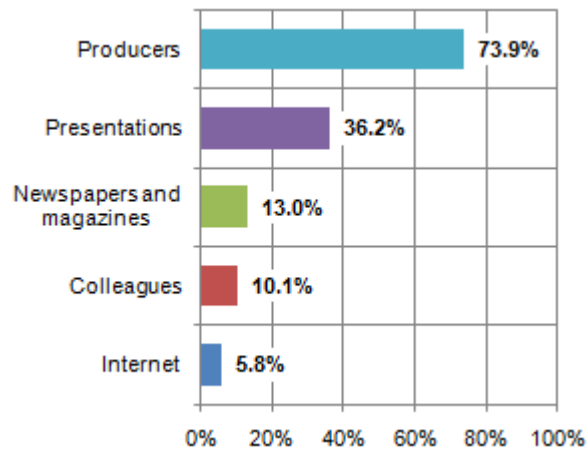
Chart 2 - Sources of awareness of consumers on Armenian pharmaceutical products



It is not crucial that acquaintances (friends, relatives) are the second source of information for users. They are also users, who obtain information from physicians and pharmacists. We should only note that users intensively exchange information about pharmaceutical products. Chart 2 shows that during the past three years the importance of pharmacies has increased from the viewpoint of spreading information about Armenian pharmaceutical products among users. If in 2008 pharmacies were the source of information for less than half of users, then in 2011 this indicator comprises 82.9%.

3.2.2 Awareness sources of Armenian pharmaceutical products among physicians

As it has been already mentioned in case of physicians, the main sources of receiving information about Armenian pharmaceutical products are producing enterprises. In this relation pharmaceutical enterprises are the initiative side. They know very well that final consumers depend on the opinion of physicians when it comes to using pharmaceutical products. That is why; they address their main efforts towards "capturing" the physicians' attention. Data of the below chart is the proof of it.

Chart 3 - Awareness sources of Armenian pharmaceutical products among physicians

↓ Comparison between 2008 / 2011 ↓

Sources of information	2008	2011	Change
Producing enterprises	50.0%	73.9%	↑
Presentations	20.0%	36.2%	↑
Newspapers and magazines	(*)	13.0%	↑
Colleagues	39.0%	10.1%	↓
Internet	(*)	5.8%	↑
Advertisement materials	20.0%	0.0%	↓
Basic education	14.0%	4.3%	↓

(*) - Sources mentioned in 2008 were not on the Top 5 list of information sources of 2011

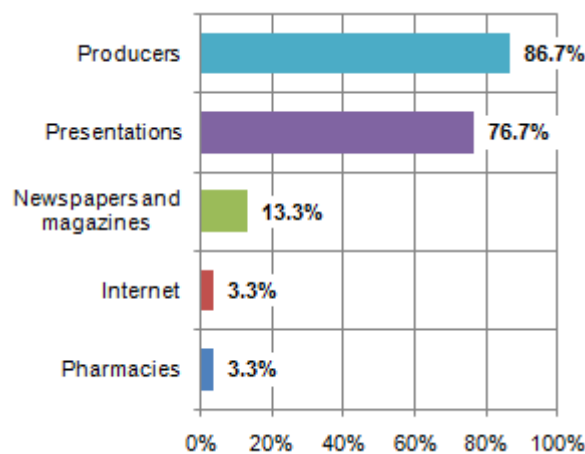
Chart 4 - Awareness sources of Armenian pharmaceutical products among physicians who have participated in Campaign

Chart 3 presents the answers of those physicians who haven't participated in activities of *Healthy nation, healthy economy* Campaign. Answers of those physicians who have participated in the trainings do not vary greatly from the answers of their colleagues (see Chart 4). Importantly, the presentations done within the frames of the Campaign were very effective, and, as a result, they were mentioned more (76.7%), than in the case of those physicians who haven't participated in the trainings (36.2%).

More than 1/3th of the physicians have mentioned that they have obtained information about Armenian pharmaceutical products during presentations. They have not named any certain

presentations. However, based on the results of the survey, we can guess that those presentations have been organized by local producers. It means that in case of presentations we should understand the measures conducted by local pharmaceutical producers.

Chart 3 suggests that during 2008-2011 local pharmaceutical enterprises have expanded their efforts of disseminating information to physicians about their products. According to physicians, Liqvor is the most active local enterprise. Instead, all the efforts of Pharmatek addressed towards raising the awareness of physicians were almost in vain. It is interesting to mention that in 2008 these two enterprises were leading the list of most active Armenian pharmaceutical enterprises.

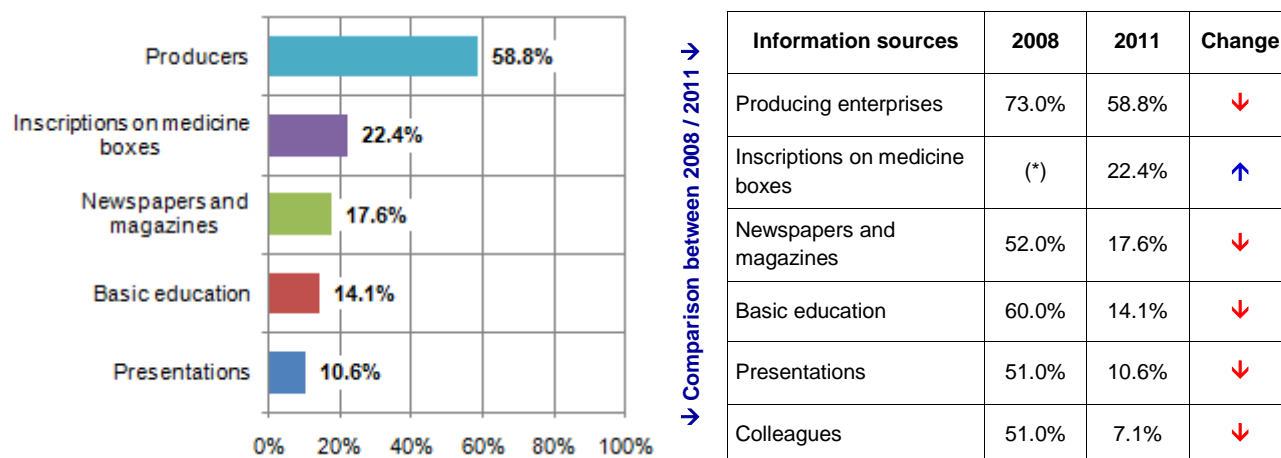
In 2011 74% of the physicians have named local enterprises as a source of information about Armenian pharmaceutical products (in 2008 this indicator comprised only 50%). It is notable, that advertisement materials were eliminated from the list of physicians' information sources. Instead, physicians have started to use Internet more often for getting information, as well as they read newspapers and magazines about health/medicine issues.

3.2.3 Awareness sources about Armenian pharmaceutical products among pharmacists

Analyzing the information sources of pharmacists, it can be noted that, just like in case of physicians, local pharmaceutical producers play the main role. Meantime, unlike physicians, it seems producers

have weakened their efforts directed towards raising the awareness of pharmacies. This conclusion is made based on comparison of 2008 and 2011 figures (see Chart 5).

Chart 5 - Awareness sources of Armenian pharmaceutical products among pharmacists



(*) - Source mentioned in 2008 was not on the Top 5 list of information sources

In case of pharmacists the most interesting fact is that share of external sources of information (newspapers and magazines, presentations, Colleagues) have been reduced. The main sources of information remain the inscriptions on medicine boxes, which they daily observe.

3.3 AWARENESS LEVEL OF USERS ABOUT ARMENIAN PHARMACEUTICAL PRODUCERS

In order to collect information about any Armenian pharmaceutical producer that users are aware of the same approach was applied as in 2008. At first, we have tried to find out how many and which Armenian producers they know *without any hints*. Then they were asked the *question after naming the enterprises*.

3.3.1 Awareness level of consumers about Armenian pharmaceutical producers

Results of the survey attest the consumers' awareness of Armenian pharmaceutical products is low. Only 24% of consumers could name an enterprise in his/her understanding without hinting. We highlight the combination "in his/her understanding", because some of the consumers named a few importers (mostly Natalie Pharm, Alpha Pharm), thinking that they are producing enterprises. In any case, consumers' awareness level of Armenian pharmaceutical products has increased since 2008, when only 3% of consumers could name a pharmaceutical enterprise without hinting. Most of them named Esculap and Arpimed without hinting. Once surveyors read names of Armenian pharmaceutical enterprises consumers recalled or recognized some of them. Consumers named 3-4 times more enterprises when they were hinted than without it.

Table 14 - Popularity of Armenian pharmaceutical producers among consumers

Pharmaceutical enterprises	Popularity indicators of pharmaceutical products . . .											
	. . . without hinting						. . . after hinting					
	Rating			Popularity			Rating			Popularity		
	2008	2011	Change	2008	2011	Change	2008	2011	Change	2008	2011	Change
Pharmatek	4	4	=	0.3%	1.8%	↑	1	1	=	6.8%	29.7%	↑
Arpimed	2	2	=	0.8%	6.0%	↑	3	2	↑	6.3%	29.2%	↑
Esculap	1	1	=	1.0%	6.3%	↑	5	3	↑	3.9%	25.8%	↑

Vitamax-E	8	6	↑	0.0%	1.6%	↑	2	4	↓	6.5%	23.2%	↑
Yerevan CPF	3	8	↓	0.5%	0.5%	=	4	5	↓	4.9%	16.9%	↑
Liqvor	5	3	↑	0.3%	2.3%	↑	8	6	↑	1.0%	10.4%	↑
Antaram	6	5	↑	0.3%	1.6%	↑	7	7	=	1.0%	9.1%	↑
Hagenas	7	9	↓	0.3%	0.5%	↑	6	8	↓	1.6%	4.9%	↑
Arsemi	-	7	↑	0.0%	0.8%	↑	11	9	↑	0.3%	4.4%	↑
Ghazaros	-	10	↑	0.0%	0.3%	↑	9	10	↓	0.5%	3.6%	↑
Medical-Horizone	-	11	↑	0.0%	0.3%	↑	10	11	↓	0.3%	2.9%	↑
Bizon	-	-	=	-	-	=	12	12	=	0.0%	1.8%	↑
Noki	-	-	=	-	-	=	13	13	=	0.0%	1.3%	↑

Table 14 attests that year by year Armenian pharmaceutical producers become more and more popular among consumers.

3.3.2 Physicians' awareness of Armenian pharmaceutical producers

It has been mentioned that in circulation of pharmaceutical products physicians have exclusive role. Their advice or opinion leads consumers, who psychologically depend on physicians when they use/consume pharmaceutical products. This reality was proved during the survey of 2008. Armenian pharmaceutical producers are well aware of this. Within the frames of their marketing policy enterprises first of all target physicians. That is why; it is not surprising that physicians' awareness of Armenian pharmaceutical producers is quite high.

Just like in case of consumers, the popularity of local enterprises is different also in case of physicians: when they are hinted to tell about them or not hinted. If we take into account the popularity indicators after hinting, we can divide them into three groups (see Table 15). Before separately presenting the popularity indicators of enterprises, we would like to indicate the confusion connected with the names of Noki and NOQI enterprises.

Table 15 - Classification of local producers by their recognition among physicians

Group I- high level of popularity (>90%)	→	→	1. Liqvor
Group II- average level of popularity (50-90%)	→	{	2. Arpimed 3. Esculap 4. Vitamax-E 5. Pharmatek
Group III- low level of popularity (<50%)	→	{	6. Arsemi 7. Medical-Horizone 8. Noki / NOQI 9. Yerevan CPF 10. Ghazaros 11. Hagenas 12. Antaram 13. Bizon

Noki is a relatively new Armenian-German JV, which operates in Masis and has 9 pharmaceutical products registered under its name³. NOQI, which is the Armenian abbreviation of Institute of Fine Organic Chemistry Institute named after A. Mnjoyan, exists from Soviet times and has three pharmaceutical products registered under its name⁴. Once (3-4 years ago) these two enterprises were located in the area of current NOQI, and most probably the similarity of their names is connected with it. After separation the two companies still exist and operate, but their names are being confused among users (physicians and pharmacists). By saying Noki or NOQI most of the physicians do not know for sure which company they mean. In some cases when the name "Mnjoyan" it is clear that it refers to NOQI, otherwise it is not clear which company is meant. That is why; it was impossible to differentiate physicians' answers. Thus, we have presented those answers together.

³ Amoxicillin, Antimic-new, Betadinok, Ibutok, Cardio-AS, Metronidazol 500mg, Neuralgin, Tetracycline, Omeprazole. Source: www.practic.am

⁴ Ganglerone, Tiodine, Kalanchoe juice. Source: www.practic.am

The popularity indicators of Armenian pharmaceutical producers among physicians are presented in the table below.

Table 16 - Popularity of Armenian pharmaceutical producers among physicians

Pharmaceutical enterprises	Popularity indicators of pharmaceutical products . . .			
	. . . among physicians who haven't participated in trainings		. . . among physicians who have participated in trainings	
	Without hinting	After hinting	Without hinting	After hinting
Liqvor	60.6%	91.5%	90.0%	96.7%
Arpimed	53.5%	83.1%	66.7%	96.7%
Esculap	18.3%	80.3%	26.7%	86.7%
Vitamax-E	18.3%	70.4%	-	63.3%
Arsemi	9.9%	22.5%	-	20.0%
Medical-Horizone	8.5%	22.5%	-	46.7%
Yerevan CPF	4.2%	19.7%	6.7%	36.7%
Pharmatek	2.8%	60.6%	-	66.7%
Noki / NOQI	2.8%	26.8%	-	23.3%
Bizon	1.4%	4.2%	-	6.7%
Antaram	-	9.9%	-	10.0%
Hagenas	-	19.7%	-	10.0%
Ghazaros	-	16.9%	-	10.0%

Liqvor and Arpimed are the most popular among physicians. More than half of surveyed physicians have named those enterprises without any hinting. After hinting, physicians certainly named more enterprises. Six Armenian pharmaceutical producers stand out with their popularity: they are Liqvor, Arpimed, Esculap, Vitamax-E, Pharmatek and Yerevan CPF. The last two, however, have lost their popularity in 2008-2011. 2.5 time drop in popularity of Yerevan CPF is the most notable one. Comparison of 2008 and 2011 results in the same conclusion (see Table 17).

Table 17 - Change in popularity of Armenian producers among physicians in 2008-2011

Pharmaceutical enterprises	Popularity indicators of pharmaceutical producers . . .											
	. . . without hinting						. . . after hinting					
	Rating			Popularity			Rating			Popularity		
	2008	2011	Change	2008	2011	Change	2008	2011	Change	2008	2011	Change
Liqvor	1	1	=	55.4%	60.6%	↑	1	1	=	86.5%	91.5%	↑
Arpimed	2	2	=	45.9%	53.5%	↑	3	2	↑	78.4%	83.1%	↑
Esculap	5	3	↑	10.8%	18.3%	↑	4	3	↑	64.9%	80.3%	↑
Vitamax-E	6	4	↑	8.1%	18.3%	↑	5	4	↑	60.8%	70.4%	↑
Arsemi	9	5	↑	4.1%	9.9%	↑	8	7	↑	13.5%	22.5%	↑
Medical-Horizone	12	6	↑	0.0%	8.5%	↑	13	8	↑	5.4%	22.5%	↑
Yerevan CPF	4	7	↓	14.9%	4.2%	↓	6	9	↓	47.3%	19.7%	↓
Pharmatek	3	8	↓	20.3%	2.8%	↓	2	5	↓	79.7%	60.6%	↓
Noki/NOQI	7	9	↓	8.1%	2.8%	↓	11	6	↑	10.8%	26.8%	↑
Bizon	10	10	=	1.4%	1.4%	=	12	13	↓	10.8%	4.2%	↓
Antaram	11	11	=	1.4%	-	↓	9	12	↓	13.5%	9.9%	↓
Hagenas	13	12	↑	-	-	=	10	10	=	12.2%	19.7%	↑
Ghazaros	8	13	↓	5.4%	-	↓	7	11	↓	18.9%	16.9%	↓

Arsemi and Medical-Horizone have improved their popularity among physicians. The latter was a newly founded enterprise during the survey of 2008, and as it can be seen, it has gained notable popularity among physicians during these 3 years.

3.3.3 Pharmacists' awareness of Armenian pharmaceutical producers

Pharmacists comprise a group who are the most aware of Armenian pharmaceutical producers. Just like during the survey of 2008, this time as well Arpimed has the highest rate of popularity among pharmacists. All pharmacists are aware of it. Pharmacists' high level of awareness of Armenian pharmaceutical products has its explanation: pharmacists are required to know all the products they sell in their pharmacies. Moreover, they know not only the names of producers, but also the variety of their products.

Comparing to 2008, in 2011 the popularity of Armenian pharmaceutical producers has declined. It is difficult to explain this phenomenon. It could be explained by the absence of pharmacists' work experience and lack of educational, but the survey results prove the opposite.

- 1) Pharmacists, who have participated in the survey of 2011, have more work experience than those of 2008. Particularly, in 2011 average work experience of pharmacists comprised 10.5 years, while in 2008 it comprised 8.6 years.
- 2) Among pharmacists who have participated in the survey of 2011 those who have higher education comprised 62%, while in 2008 they comprised 58%. This means they are more qualified.

Popularity indicators of Armenian pharmaceutical producers among pharmacists are presented below.

Table 18 - Popularity of Armenian pharmaceutical producers among pharmacists

Pharmaceutical enterprises	Popularity indicators of Armenian pharmaceutical producers . . .											
	. . . without hinting						. . . after hinting					
	Rating			Popularity			Rating			Popularity		
	2008	2011	Change	2008	2011	Change	2008	2011	Change	2008	2011	Change
Arpimed	1	1	=	97.6%	95.3%	↓	1	1	=	100.0%	100.0%	=
Liqvor	3	2	↑	87.1%	71.8%	↓	2	2	=	100.0%	98.8%	↓
Esculap	2	3	↓	90.6%	62.4%	↓	3	3	=	100.0%	98.8%	↓
Pharmatek	5	4	↑	44.7%	30.6%	↓	4	5	↓	94.1%	94.1%	=
Arsemi	4	5	↓	56.5%	28.2%	↓	5	7	↓	94.1%	90.6%	↓
Yerevan CPF	6	6	=	27.1%	23.5%	↓	12	12	=	68.2%	70.6%	↑
Medical-Horizone	13	7	↑	1.2%	22.4%	↑	13	10	↑	7.1%	75.3%	↑
Vitamax-E	8	8	=	10.6%	14.1%	↑	6	4	↑	92.9%	96.5%	↑
Noki / NOQI	9	9	=	10.6%	9.4%	↓	10	9	↑	78.8%	77.6%	↓
Bizon	10	10	=	7.1%	4.7%	↓	11	11	=	72.9%	75.3%	↑
Antaram	11	11	=	7.1%	4.7%	↓	7	6	↑	90.6%	91.8%	↑
Hagenas	7	12	↓	21.2%	3.5%	↓	9	13	↓	81.2%	70.6%	↓
Ghazaros	12	13	↓	3.5%	2.4%	↓	8	8	=	85.9%	90.6%	↑

The list of pharmaceutical producers named by pharmacists is longer than it is mentioned in the one above. Besides the above mentioned 13 enterprises pharmacists have named another 12, thinking that they are producers. Most often the names of AlphaPharm and ArphitoPharm were mentioned. This means pharmacists know names of pharmaceutical enterprises whose products are sold in their

pharmacists, but they don't know for sure which ones are producers and which are importers. It is interesting that during this survey none of pharmacists have mentioned names of 3 small producers, which had been mentioned during the survey of 2008. They are Leykoy, Nektar Bonus and Insi.

3.4 AWARENESS LEVEL OF PHARMACEUTICAL PRODUCT USERS ABOUT ARMENIAN PRODUCERS

3.4.1 Consumers' awareness sources about Armenian pharmaceutical producers

The results of the survey show that consumers obtain information about Armenian pharmaceutical producing enterprises from the following sources:

- 1) acquaintances: friends, colleagues, relatives;
- 2) pharmacies: mainly from pharmacists;
- 3) physicians, who prescribe pharmaceutical products for consumers;
- 4) television: from different TV programs about health;
- 5) advertisement, which includes both TV and radio advertisements;
- 6) inscriptions on boxes and medical recipes;
- 7) Internet;
- 8) newspapers, magazines.

Among the list of information sources the first four are met the most, and the last four the least. Accordingly, the list of three main sources of information was formed for consumers and its subdivisions by enterprises, which is presented in the table below.

Table 19 - 3 main sources of information for consumers about Armenian pharmaceutical producers

Information sources	Esculap	Arpimed	Liquor	Pharmatek	Antaraim	Vitamax-E	Arsemi	Yerevan CPF	Hagenas	Ghazaros	Medical-Horizone	Noki-NOQI	Bizon
Acquaintances (friends, relatives)	20%	26%	28%	31%	22%	23%	24%	48%	10%	43%		17%	
Pharmacies	21%	16%	14%	18%	42%	20%	24%		30%	36%	18%	50%	67%
Physicians			12%					12%	25%				
Television		18%				18%	18%	7%			18%	17%	
Advertisement	23%			17%							18%		
Inscriptions on boxes					14%					7%			33%
Don't know / don't remember	8%	10%	5%	16%	14%	6%	12%	13%	5%	7%	18%	17%	

Comparing to the results of 2008 in 2011 the following notable changes were recorded:

- the quantity of consumers who don't remember how and where they have heard the names of familiar producing enterprises has declined two times,
- the role of pharmacies (meaning pharmacists) in spreading information about Armenian pharmaceutical products among consumers has increased: for 5 small producers it is the main way of spreading information;
- as a source of information the role of television programs and advertisements has declined;
- there is a quite intensive information exchange about Armenian pharmaceutical producers among consumers. For 7 bigger producers it is the main source of spreading information.

3.4.2 Awareness sources of physicians about Armenian pharmaceutical producers

Notable changes took place in the list of physicians' awareness sources. During the survey of 2008 it became clear that in order to stimulate sales of their products importers are in intensive contact with physicians. This was practiced through medical representatives of importers. In 2008 Liqvor was the only Armenian pharmaceutical enterprise who was practicing this method. It was less applied among others. In 2011 the situation has changed. According to physicians the main source of information about Armenian pharmaceutical enterprises are the producers themselves and their representatives (see Table 20).

Table 20 - 3 main sources of information about Armenian pharmaceutical producers for physicians who have not participated in trainings

Information sources	Liqvor	Arpimed	Esculap	Vitamax-E	Arsemi	Medical-Horizone	Yerevan CPF	Pharmatek	Noki/NOQI	BIZON*	Antaram *	Hagenas	Ghazaros
Medical representatives	58%	48%	34%	31%	31%	53%	36%	35%				53%	
Acquaintances, colleagues	4%	10%		13%		7%	14%	8%	21%			7%	
Pharmacies	7%		17%	15%	31%			21%	11%			7%	55%
Basic education									42%				
Inscriptions on boxes	4%	6%	5%			13%	14%						9%
Don't know/don't remember	14%	11%	26%	19%	38%	13%	14%	17%	21%			27%	27%

(*) - The answers for Bizon and Antaram were a few and the results should not be considered for all the physicians

The method of exchanging information among physicians has increased by two times. This is a positive tendency as it proves that physicians have started to discuss more Armenian pharmaceutical producers. At the same time those producers should always be aware that any negative information about their products can quickly spread among physicians.

Comparing to 2008 the number of physicians who don't remember how they became familiar with the producer has reduced by 2 times. This is again positive and proves that sources of spreading information about Armenian pharmaceutical producers have become more memorable, and consequently more influential and effective.

If we take a look at the answers of those physicians who have participated in the trainings of *Healthy nation, healthy economy* Campaign, we will see they are similar to those of their colleagues. Producers and their medical representatives are their main source of information. But it is notable that for about 20% of those physicians, who have participated in trainings, the main sources of information were trainings. It means trainings are considered the second source of information for their intensiveness (see Table 21).

Table 21 - 3 main sources of information about Armenian pharmaceutical producers for physicians who have participated in trainings

Information sources	Liqvor	Arpimed	Esculap	Vitamax-E	Arsemi *	Medical-Horizone	Yerevan CPF	Pharmatek	Noki/NOQI	Bizon *	Antaram *	Hagenas *	Ghazaros *
Med. representatives	54%	53%	50%	46%		39%	46%	52%					
Trainings of <i>Healthy nation, healthy economy</i> Campaign	15%	19%	19%	13%		22%		20%					
Acquaintances, colleagues									14%				
Pharmacies		6%	6%				15%	8%					
Basic education									71%				
Inscriptions on boxes				17%					14%				
Don't know/don't remember	10%	6%	6%	8%		22%	15%	8%					

(*) - The answers for those enterprises were few and the results should not be considered for all the physicians

It is pity that importance of basic education as a source of information about Armenian pharmaceutical producers is on a low level. From this point of view NOQI is the only exception, which is connected with high intensiveness of internships for physicians at the enterprise.

3.4.3 Awareness sources of Armenian pharmaceutical producers among pharmacists

Awareness sources of pharmacists are less in number. The results of the survey prove that information about Armenian pharmaceutical producers is being spread among pharmacists through three main sources presented in Table 22.

Table 22 - 3 main sources of information about Armenian pharmaceutical enterprises for pharmacists

Information sources	Liqvor	Arpimed	Esculap	Vitamax-E	Arsemi	Medical-Horizone	Yerevan CPF	Pharmatek	Noki-NOQI	Bizon	Antaram	Hagenas	Ghazaros
Representatives of producers	33%	34%	36%	43%	32%	40%	35%	31%	35%	35%	37%	34%	33%
Price lists, catalogues, directories	28%	25%	26%	13%	31%	26%	26%	31%	29%	26%	26%	30%	26%
Inscriptions on boxes	19%	20%	19%	23%	18%	11%	14%	18%	18%	15%	17%	17%	16%

Comparison of the presented data with outputs of the 2008 survey results in following conclusions:

- Armenian pharmaceutical producers continue working intensively with pharmacies and personally present their enterprise and products. In this light it is even more difficult to understand why the popularity of Armenian pharmaceutical enterprises has declined among pharmacists;
- The mentioned information sources about producers became more memorable as the number of pharmacists, who do not remember how they became familiar with the producer, has declined;
- The pharmacists are now observing the products they sell more deeply (reading the inscriptions on boxes, prescriptions), and that is how they collect information about producers.

4 ATTITUDE OF PHARMACEUTICAL PRODUCT USERS TOWARDS ARMENIAN PHARMACEUTICAL PRODUCTS

4.1 PHARMACEUTICAL PRODUCT USERS' EXPERIENCE WITH LOCAL PHARMACEUTICAL PRODUCTS

The attitude of pharmaceutical product users towards Armenian pharmaceutical products relies on both objective and subjective bases. The objectives bases of attitude appear when users of pharmaceutical products express their certain opinions:

- in case of consumers based on their long experience of using local pharmaceutical products;
- In the case of physicians based on fair and professional assessment of quality features of pharmaceutical products;
- In the case of pharmacists based on reactions and opinions of the customers and consumers.

However, in case of pharmaceutical products sometimes we meet opinions that are not very objective. In particular:

- Consumers may express their opinion based not on their own experience of using pharmaceutical products, but based on information they received from other people (e.g. from physicians), which sometimes can be not so objective;
- Physicians or pharmacists may show their positive attitude and express their opinion about those pharmaceutical products whose producers stimulate and motivate them.

Taking into consideration the above mentioned and before analyzing the attitude of pharmaceutical product users it is important to assess the experience of consumers.

4.1.1 Consumers' experience in using pharmaceutical products

Consumers buy pharmaceutical products exclusively from pharmacies. In order to understand the frequency of their visits to pharmacies, we have observed the 4-month period prior to the survey. Chronologically this period coincide with September - December of 2010, when the cases of illness increase. Thus, the visits of consumers to pharmacies and purchasing of pharmaceutical products significantly increase. In order to prove this we can make a comparison with the data of 2008, when the frequency of consumers' visits to pharmacies was observed during January-March of 2008.

Chart 6 - Frequency of consumers' visits to pharmacies during the 4months prior to the survey

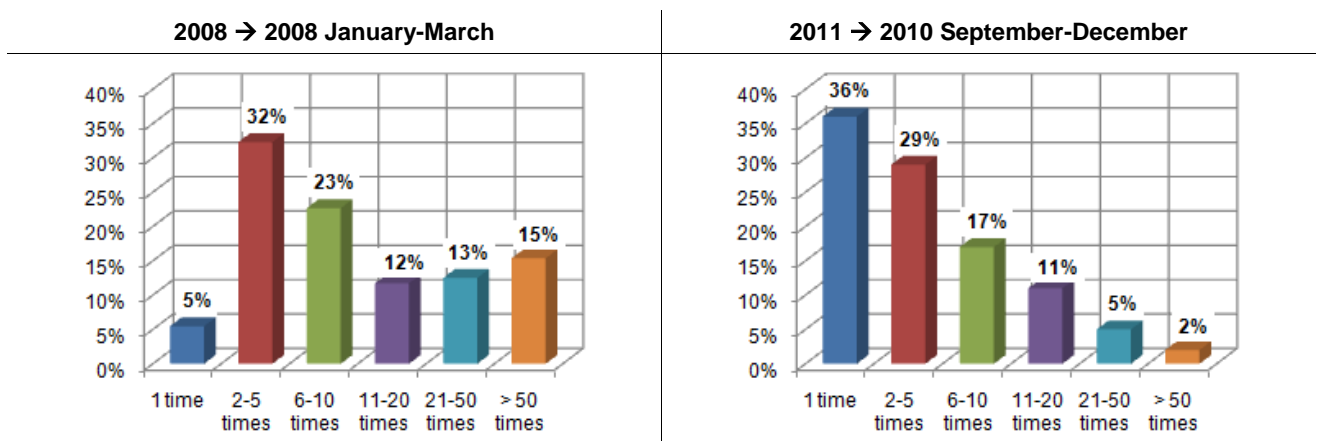


Chart 6 shows that during the survey of 2011 the interviews were done among such consumers who are more experienced from the viewpoint of visiting pharmacies or buying pharmaceutical products. That's

why their attitude towards Armenian pharmaceutical products should be considered as at least adequate to those of the survey of 2008.

During the period of September-December 2010 in order to buy pharmaceutical products one consumer had visited pharmacies on average 24 times. In fact this includes also those consumers who have visited pharmacies following the advice of physicians or on someone's request. Such frequency of visiting pharmacies can be called *having wide experience in procuring pharmaceutical products* (in 2008 that experience was evaluated as *sufficient*, and the average frequency of visits to pharmacies was 8.3 times). Each time visiting a pharmacy each consumer bought in average 1.3 pharmaceutical products (almost the same as in 2008). These results attest that consumers who have visited pharmacies had the opportunity to obtain enough information about Armenian pharmaceutical products.

On the other hand it is impossible to evaluate what part of the consumers had bought Armenian pharmaceutical products, used them and gained some information about them, which could form certain attitude towards them. The number of customers who visit pharmacies to buy pharmaceutical products for their relatives, family members or acquaintances is very small. Those customers may not even know what pharmaceutical products they have bought. It is even less probable that they might know whether they have bought Armenian pharmaceutical products or imported ones. In order to assess this we have interviewed those customers right after they bought the pharmaceutical products. The results are presented in Chart 7. It became clear that at the moment of the interview only 5.7% of the consumers knew that they had bought Armenian pharmaceutical products.

Chart 7 - Origin of the procured pharmaceuticals at the moment of interview



Observation of consumers' experience of using Armenian pharmaceutical products from the long-run perspective resulted in the following outputs:

Table 23 - Consumers' experience of using Armenian pharmaceutical products for 2008-2011

Consumers ...	2008	2011	Changes
Have ever used Armenian pharmaceutical products	26%	52%	+26%
Have never used Armenian pharmaceutical products	21%	19%	-2%
Could not answer	53%	29%	-24%
Total	100%	100%	-

Presented figures show one very important and positive fact. Comparing to 2008, in 2011 the number of consumers who know for sure that they have used Armenian pharmaceutical products has increased. This happened mainly at expense of those consumers who 3 years ago could not remember whether they have used Armenian pharmaceutical products or not. The reasons can be different: a) consumers have started remembering Armenian pharmaceutical products as a result of often and regular use; b) consumers have started remembering bad or good qualities of Armenian pharmaceutical products. The general conclusion is that consumers who have participated in the survey of 2011 have more objective bases to express their attitude towards Armenian pharmaceutical products than those of 2008.

Consumers who have used Armenian pharmaceutical products (52% of the total) have named 85 Armenian pharmaceutical products. Top 10 most mentioned pharmaceutical products are presented in Chart 8. Comparing to 2008 only *Ascophen* kept its position in the list. In 2008 we have presented Top 5 the most mentioned Armenian pharmaceutical products. 4 of those products, particularly *Valerian*, *haw*, *Iodine* and *motherwort* were left out from the Top 10 list of 2011.

4.1.2 Physicians' experience in using local (prescribing) pharmaceutical products

Unlike consumers, physicians deal with pharmaceutical products every day while carrying out their professional duties. That is why; they are very experienced in using (prescribing) Armenian pharmaceutical products, and their attitude is more reasonable and justified. Data of Table 24 comes to attest the same.

Chart 8 - Top 10 Armenian pharmaceutical products procured by consumers

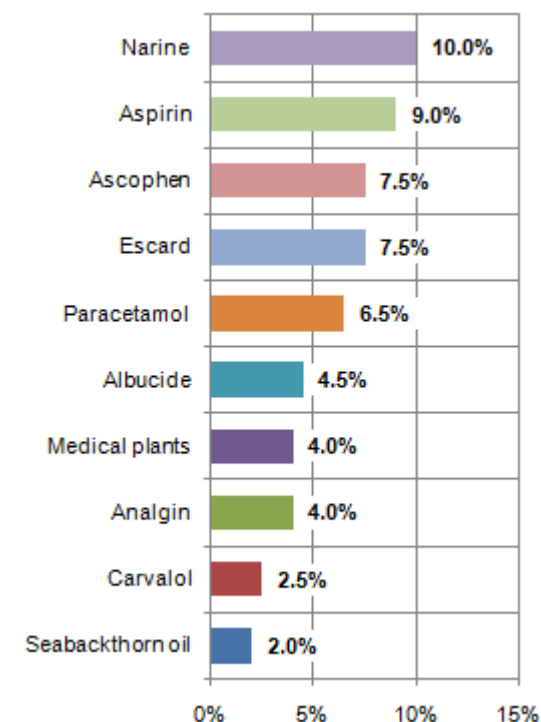


Table 24 - Physicians' experience in prescribing Armenian pharmaceutical products

Those physicians who ...	Physicians who haven't participated in the trainings	Physicians who have participated in the trainings
Have ever prescribed Armenian pharmaceutical products	93%	86%
Have never prescribed Armenian pharmaceutical products	7%	7%
Had difficulty to answer	0%	7%
Total	100%	100%

The presented data prove not only the rich experience of physicians in using (prescribing) Armenian pharmaceutical products, but also the significant increase of that experience during the past 3 years. Comparing to 2008 the number of those physicians who have never used Armenian pharmaceutical products has reduced by 9% (see Table 25).

Table 25 - Physicians' experience in prescribing Armenian pharmaceutical products in 2008-2011

	2008	2011	Changes
Have ever prescribed Armenian pharmaceutical products	84%	93%	+9%
Have never prescribed Armenian pharmaceutical products	16%	7%	-9%
Had difficulty to answer	0%	0%	-
Total	100%	100%	-

The increase of physicians' experience in using Armenian pharmaceutical products reminds us about increase of physicians' awareness on Armenian pharmaceutical products (see Table 10). It is obvious that the popularity of pharmaceutical products and physicians' experience in using them are directly proportional to each other.

Physicians who haven't participated in the trainings all together (71 physicians) have named 97 pharmaceutical products, which they have used during the 4-month period preceding the survey (in

average 1.4 pharmaceutical product per person). Top 10 most mentioned pharmaceutical products are presented in Chart 9.

During the past 3 years physicians have started recognizing and using more Armenian pharmaceutical products. It should be mentioned that in 2008 physicians have mentioned only 72 pharmaceutical products they used (in average 1.0 pharmaceutical product per person). In fact, in 2008 each second physician has named infusion solutions among the pharmaceutical products they prescribe; results of 2011 are more diverse.

4.1.3 Pharmacists' experience in using (selling) pharmaceutical products

Armenian pharmaceutical products have been and are normally sold in all pharmacies of Armenia. That is why; it is impossible to find a single pharmacist who hasn't ever sold Armenian pharmaceutical product during his/her work experience. In the case of pharmacies we noticed the following approach: *"the more there are varieties of products and opportunity to choose for customers, the more visitors there will be"*. It is possible to meet different analogues of the same pharmaceutical product at the pharmacies which have different origins, producers and prices. It is done to meet different consumers' demands. There is an opinion that it is meant to satisfy needs of various physicians, who have different opinions and approaches towards analogues of the same pharmaceutical products.

We have formed the list of most sold Armenian pharmaceutical products based on information obtained from pharmacists. In parallel, we have presented indicators of 2008 in order to understand how the list of most sold Armenian pharmaceutical products has been changed.

Chart 9 - Top 10 local pharmaceutical products prescribed by physicians in Sep.- Dec. 2010

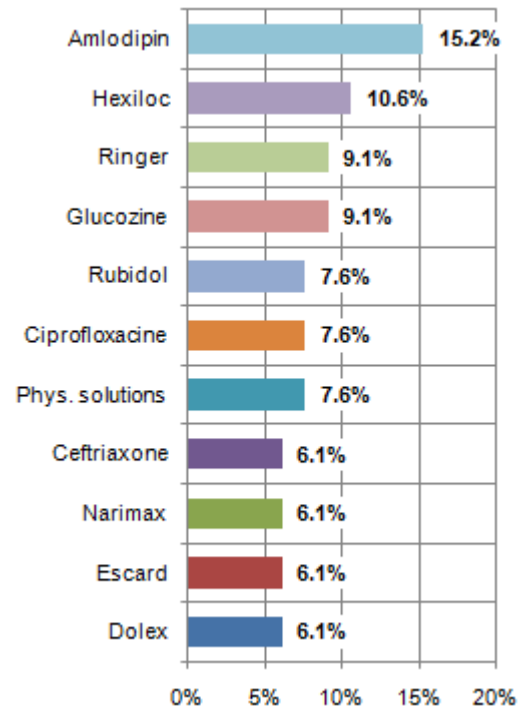
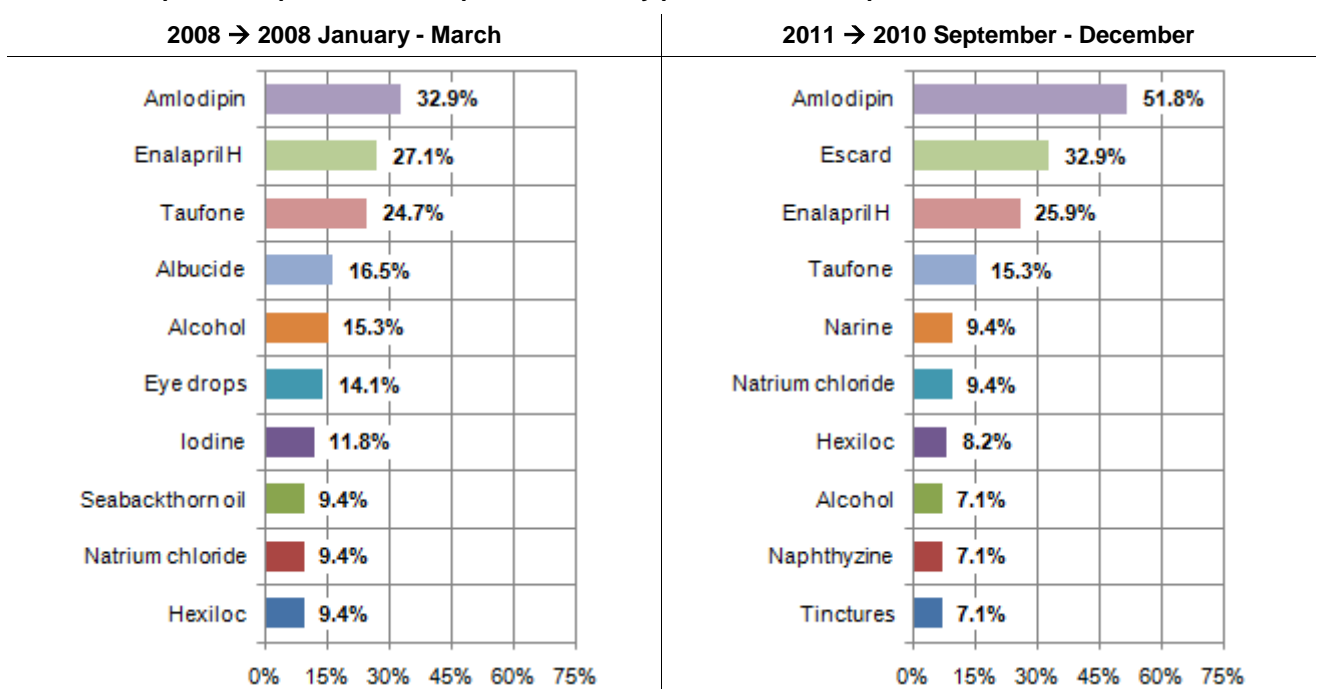


Chart 10 - Top 10 local pharmaceutical products sold by pharmacists in Sep.-Dec. 2010



4.2 EXPRESSION OF PHARMACEUTICAL PRODUCT USERS' ATTITUDE

4.2.1 Who has most used Armenian pharmaceutical products, and why?

The analysis of users' experience in using Armenian pharmaceutical products shows that during the past three years the number of people who use Armenian pharmaceutical products more often in order to solve their health problems has increased. At the same time it is obvious that until now there are many pharmaceutical product users who have never used Armenian pharmaceutical products. The number of such users comprise 19% of consumers (21% in 2008) and 7% of physicians (16% in 2008). It may be interesting why those people have not used Armenian pharmaceutical products.

1/3rd of users who have never used Armenian pharmaceutical products have their objective reasons for that; they simply did not have a reason or need to do. The rest (2/3rd or 13% of all consumers) comprise a group of so called *critics*. According to them:

- 26% of critics say *they are not familiar with Armenian pharmaceutical products and don't trust them;*
- 21% of critics say that *others complain about Armenian pharmaceutical products saying they have bad quality, are not efficient, imported pharmaceutical products are better, etc.;*
- 7% of critics have declared that *physicians do not advise them to use Armenian pharmaceutical products, and;*
- Another 13% *found it difficult to justify their opinion.*

The physicians (7% from the total), who have never used (prescribed) Armenian pharmaceutical products, gave the same explanations. They have mentioned that *they are not familiar with Armenian pharmaceutical products, are not sure of their efficiency or Armenian pharmaceutical enterprises do not produce the pharmaceutical products they need.* However, these opinions should be taken with some reservations, since their share in total sample of the survey is very small.

4.2.2 Importance of pharmaceutical products' origin among the users and their preferences

4.2.2.1 *Importance of the origin of pharmaceutical products among consumers*

As already mentioned, consumers should not be considered at the same level with other groups of users concerning how they perceive the importance of pharmaceutical products' origin. Low level of their awareness does not allow consumers make sound/justified inferences. When it comes to the origin of pharmaceutical products they mention that a) the origin of pharmaceutical products is not important for them (60%), and b) had difficulty to answer (1%).

Table 26 - Importance of the origin of pharmaceutical products among consumers

Opinion of consumers	Share
Prefer imported pharmaceutical products	31%
Some pharmaceutical products are more preferable to be imported, some to be local	2%
Origin of pharmaceutical products is not important	60%
Prefer Armenian pharmaceutical products	6%
Had difficulty to answer	1%
Total	100%

It is obvious that imported pharmaceutical products have more popularity among Armenians. 31% of consumers, who prefer imported pharmaceutical products, justify their opinion the following way: a) they

prefer imported pharmaceutical products because they think that *imported ones are of high quality*, and b) they prefer imported pharmaceutical products, because they think that *Armenian ones are of bad quality and are not trustworthy*. Table 27 presents consumers' preferences.

Table 27 - Preferences of pharmaceutical products' origin among consumers

Consumers prefer the pharmaceutical products to be . . .			
. . . IMPORTED (31%), because		. . . ARMENIAN (6%), because	
▶ Imported pharmaceutical products are of higher quality;	34%	▶ Armenian pharmaceutical products are of higher quality;	38%
▶ Imported pharmaceutical products are more trustworthy ;	21%	▶ Armenian pharmaceutical products are more trustworthy;	17%
▶ Imported pharmaceutical products are more efficient;	20%	▶ Want to promote local production based on patriotism;	13%
▶ Do not trust Armenian pharmaceutical products;	8%	▶ Armenian pharmaceutical products are more affordable;	8%
▶ Armenian pharmaceutical products are not efficient;	4%	▶ Armenian pharmaceutical products are fresher;	4%
▶ Influence of imported pharmaceutical products is stronger;	3%	▶ Influence of Armenian pharmaceutical products is stronger;	4%
▶ Imported pharmaceutical products are less falsified;	3%	▶ Armenian pharmaceutical products are more efficient;	4%
▶ Armenian pharmaceutical products are of bad quality;	3%	▶ Do not trust imported pharmaceutical products;	4%
▶ They are not familiar with Armenian pharmaceutical products;	3%	▶ Our specialists are better	4%
▶ Physicians advise to use imported pharmaceutical products;	2%		
▶ Others complain about Armenian pharmaceutical products;	1%		
▶ There is no Armenian analogue of the pharmaceutical product they need;	1%		
▶ Armenian pharmaceutical products are made in basements.	1%		

Dynamic analysis of the topic results in disturbing image. In the period of 2008-2011 the number of consumers who prefer using imported pharmaceutical products has increased by 12 points, while the opposite group remained almost the same.

Table 28 - Importance of the origin of pharmaceutical products among consumers in 2008-2011

Position	2008	2011	Changes
Prefer imported pharmaceutical products	19%	31%	+12%
Some pharmaceutical products are preferred to be imported, others to be local	4%	2%	-2%
The origin of pharmaceutical products is not important	56%	60%	+4%
Prefer Armenian pharmaceutical products	5%	6%	+1%
Had difficulty to answer	16%	1%	-15%
Total	100%	100%	-

It can be concluded from the data presented in Table 28 that number of consumers who prefer imported pharmaceutical products has increased at expense of those people who 3 years ago were unsure about which product to use. The following logical conclusion based on the presented information can be made:

Processes:

- ➔ *During the past 3 years the number of consumers, who are aware of Armenian pharmaceutical products, has increased;*

- ➔ *Their awareness about those products has increased;*
- ➔ *Today consumers are more aware of Armenian pharmaceutical products than three years ago;*
- ➔ *During the past 3 years consumption of Armenian pharmaceutical products by consumers has increased;*
- ➔ *During the past three years the number of consumers who prefer imported pharmaceutical products has significantly increased, while the number of those who prefer Armenian pharmaceutical products has remained the same.*

Conclusion:

- ➔ *The more consumers have used/became aware of Armenian pharmaceutical products the more they intended to use imported pharmaceutical products.*

These processes show the existing problems of the quality and efficiency of Armenian pharmaceutical products. These problems also existed during the survey of 2008. However, consumers could not say in details what certain problems they see concerning the Armenian pharmaceutical products. Physicians and pharmacists do that for them, whose analysis of preferences is brought below.

4.2.2.2 Importance of the origin of pharmaceutical products for physicians

Answers of physicians concerning the importance of the origin of pharmaceutical products make some corrections in the problem of "imported pharmaceutical products vs. the local ones". Perhaps the problem is not that big when it comes to the efficiency of Armenian pharmaceutical products, as we can understand from the answers of consumers based on data presented below.

Table 29 - Importance of the origin of pharmaceutical products among physicians

Position	Share	
	Physicians who haven't participated in the trainings	Physicians who have participated in the trainings
Prefer imported pharmaceutical products	21%	3%
Some pharmaceutical products are preferred to be imported, others to be local	51%	70%
The origin of the pharmaceutical products is not important	20%	20%
Prefer Armenian pharmaceutical products	8%	7%
Total	100%	100%

51% of the physicians can differentiate pharmaceutical products, mentioning when they prefer imported pharmaceutical products and when local ones. In order to make such decisions physicians rely on their professional knowledge. That is why; physicians' opinions are considered to be more ponderous. Concerning the group of physicians who have unequivocal positions, the 21% of them prefer imported pharmaceutical products, while 8% prefer Armenian ones.

Table 30 - Preferences of pharmaceutical products' origin among physicians

Physicians prefer pharmaceutical products to be . . .			
. . . IMPORTED (21%), because		. . . ARMENIAN (8%), because	
▶ Imported pharmaceutical products are more trustworthy;	20%	▶ Armenian pharmaceutical products are more efficient.	100%
▶ Imported pharmaceutical products are more efficient;	13%		
▶ Imported pharmaceutical products are tested;	13%		
▶ Imported pharmaceutical products are of good quality;	13%		
▶ They are not familiar with Armenian pharmaceutical	13%		

products;	
▶ They do not trust Armenian pharmaceutical products;	7%
▶ There is no Armenian analogue of the pharmaceutical product they need;	7%
▶ Imported pharmaceutical products have fewer side effects.	7%

Dynamic analysis of the topic results in positive developments. The number of physicians who prefer imported pharmaceutical products has reduced by 10 points during the past three years. The number of physicians who have differentiated approach has increased by 13 points (see Table 31). In some cases they prefer local pharmaceuticals; in other cases imported products are more preferable.

Table 31 - Importance of the origin of pharmaceutical products among physicians in 2008-2011

Position	2008	2011	Changes
Prefer imported pharmaceutical products	31%	21%	-10%
Some pharmaceutical products are preferred to be imported, others to be local	38%	51%	+13%
The origin of pharmaceutical products is not important	26%	20%	-6%
Prefer Armenian pharmaceutical products	1%	8%	+7%
Had difficulty to answer	3%	0%	-3%
Total	100%	100%	-

Popularity of Armenian pharmaceutical products is mostly connected with Liqvor, which has ensured its position as a producer of high quality pharmaceutical products (especially eye drops). This Company is also very consistent when it comes to fixing its shortcomings. Besides Liqvor words of praise have been said for Esculap and Medical-Horizone. In fact, the criticism of 2008 concerning the product packaging of Esculap was not met in 2011.

Although positive trends are seen, it does not mean absence of connected with quality and efficiency of Armenian pharmaceutical products. Following complaints and criticism of physicians took place:

- Arpimed leads the list of Armenian pharmaceutical producing enterprises that has received the most criticism by physicians. Psychotropic pharmaceutical products became the target of complaints because of their low and inefficient quality features. The fact that the problem has also existed three years ago and until now no progress has been recorded is bothersome. Besides the quality, physicians have also criticized the packaging of those pharmaceutical products. Different psychotropic pharmaceutical products are packaged in similar a box, which confuses consumers and creates inconveniences. During the survey of 2011 there were also complaints about such pharmaceutical products of Arpimed as *Citramon*, *Paracetamol* and *Aspirin* as pharmaceutical products with bad quality features.
- There have also been complaints about the packaging of pharmaceutical products of Yerevan CPF and about *Narimax* produced by Vitamax-E.

4.2.2.3 Importance of the origin of pharmaceutical products among pharmacists

Analysis of the answers given by pharmacists suggests that the importance of pharmaceutical products is assessed by them both from professional viewpoint and as representatives of commerce. For 38% of pharmacists the origin of pharmaceutical products is not important. They give more importance to the sale/consumption of pharmaceutical products. The second large group of pharmacists (24%), just like physicians, prefers imported pharmaceutical products.

Table 32 - Importance of the origin of pharmaceutical products among pharmacists

Position	Share
Prefer imported pharmaceutical products	24%
Some pharmaceutical products are preferred to be imported, others to be Armenian	28%
The origin of pharmaceutical products is not important	38%
Prefer Armenian pharmaceutical products	2%
Had difficulty to answer	8%
Total	100%

Pharmacists justify their preferences like physicians do.

Table 33 - Preferences of pharmaceutical products' origin among pharmacists

Pharmacists prefer pharmaceutical products to be . . .			
. . . IMPORTED (24%), because		. . . ARMENIAN (2%), because	
▶ Imported pharmaceutical products are of good quality;	30%	▶ Armenian pharmaceutical products are more affordable.	100%
▶ They do not trust Armenian pharmaceutical products;	20%		
▶ Customers do not trust Armenian pharmaceutical products;	15%		
▶ Imported pharmaceutical products are more trustworthy;	15%		
▶ Imported pharmaceutical products are more efficient;	5%		
▶ Foreign companies have better specialists;	5%		
▶ imported pharmaceutical products are tested.	5%		

Dynamic analysis of the topic results in a conclusion that pharmacists are more likely to choose imported pharmaceutical products (see Table 34).

Table 34 - Importance of the origin of pharmaceutical products among pharmacists in 2008-2011

Position	2008	2011	Changes
Prefer imported pharmaceutical products	8%	24%	+12%
Some pharmaceutical products are preferred to be imported, others to be Armenian	35%	28%	-7%
The origin of pharmaceutical products is not important	47%	38%	-9%
Prefer Armenian pharmaceutical products	5%	2%	-3%
Had difficulty to answer	5%	8%	+3%
Total	100%	100%	-

Here we get the same figures just like in case of consumers. It suggests that similarity of preferences between consumers and pharmacists is a result of their interconnection. We have already mentioned that pharmacies are the main source of information for consumers (see Chart 2, page 17). This explains the relative similarity of consumers' and pharmacists' opinions.

4.3 USERS' ASSESSMENT OF ARMENIAN PHARMACEUTICAL PRODUCTS

Users' attitude towards the origin of pharmaceutical products does not allow to understand which specific advantages form positive perception of users towards imported products and what disadvantages form critical attitude of users towards Armenian pharmaceutical products. In order to

understand this we have addressed and analyzed 4 main characteristics, i.e. *quality (influence efficiency), price, packaging, availability*. These characteristics were evaluated for both imported and Armenian pharmaceutical products, thereby getting comparative figures. In fact, imported pharmaceutical products were divided into two groups by origin: a) international (American and European pharmaceutical products), and b) Russian pharmaceutical products (as a group of pharmaceutical products which by image is positioned in the middle between international and Armenian ones).

In order to evaluate the characteristics of pharmaceutical products 4-scale system was implied, where 4 stands for the most positive and 1 stands for the most negative responses. The table below presents definitions of all scale levels.

Table 35 - Assessment scale used for evaluating some characteristics of pharmaceutical products

	Characteristics of pharmaceutical products			
	Influence efficiency (quality)	Price	Packaging	Availability
Assessment scale	4 - very efficient 3 - efficient 2 - weak 1 - inefficient	4 - very cheap 3 - cheap 2 - expensive 1 - very expensive	4 - nice and convenient 3 - not bad 2 - not nice 1- bad looking and inconvenient	4 - always available 3 - can be found 2 - is hardly found 1 - deficit

4.3.1 Consumers assessment of Armenian pharmaceutical products

In all groups of pharmaceutical product users there have been people who had difficulty with doing comparative evaluation of pharmaceutical products. There are more such people among consumers and less among physicians. Significant part of consumers is not able to evaluate pharmaceutical products because they lack information, knowledge and experience. That is why; they had difficulty with giving certain ranking. According to results of the survey the following shares of consumers gave evaluations to characteristics of pharmaceutical products.

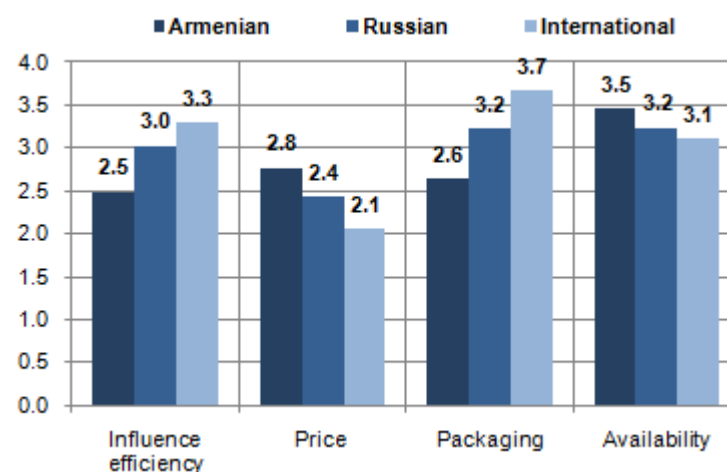
Table 36 - Shares of consumers that could evaluate pharmaceutical products against applied characteristics

Influence efficiency (quality)			Price			Packaging			Availability		
Arm.	Rus.	Intern.	Arm.	Rus.	Intern.	Arm.	Rus.	Intern.	Arm.	Rus.	Intern.
72%	83%	88%	75%	84%	91%	66%	80%	87%	77%	87%	90%

The comparative evaluation of imported and Armenian pharmaceutical products by consumers suggests:

- Armenian pharmaceutical products are more available and affordable (cheaper) than their imported analogues ; and
- Imported pharmaceutical products have better influence efficiency (good quality) and high level of packaging comparing to their Armenian analogues (see Chart 11).

Chart 11 - Consumers' evaluations of pharmaceutical products' characteristics



Consumers' evaluation of

pharmaceutical products' characteristics (by their origin) was based on information from various sources. Most of all (84%) people have mentioned that their evaluations are based on *their experience of using/consuming pharmaceutical products*. 30% of consumers gave evaluations based on *the information they had obtained from their friends and relatives*. Only 4% of consumers relied on *the information they had obtained from physicians and pharmacists*.

Two positive comparative features (i.e. cheap prices and availability) of Armenian pharmaceutical products concede to other characteristics (influence efficiency and packaging) by their importance. According to consumers, pharmaceutical products are special type of products and their use is directly connected with people's health. That is why; their quality (influence efficiency) is more important than other characteristics, including their price. It can be concluded that people do not tend to save money at the cost of their health.

Evaluations given to Armenian pharmaceutical products by consumers have changed to the worst during the last three years. Perhaps this is the reason of the increase of local consumers' preferences towards imported pharmaceutical products.

Table 37 - Consumers' ranking given pharmaceutical products for the period of 2008-2011

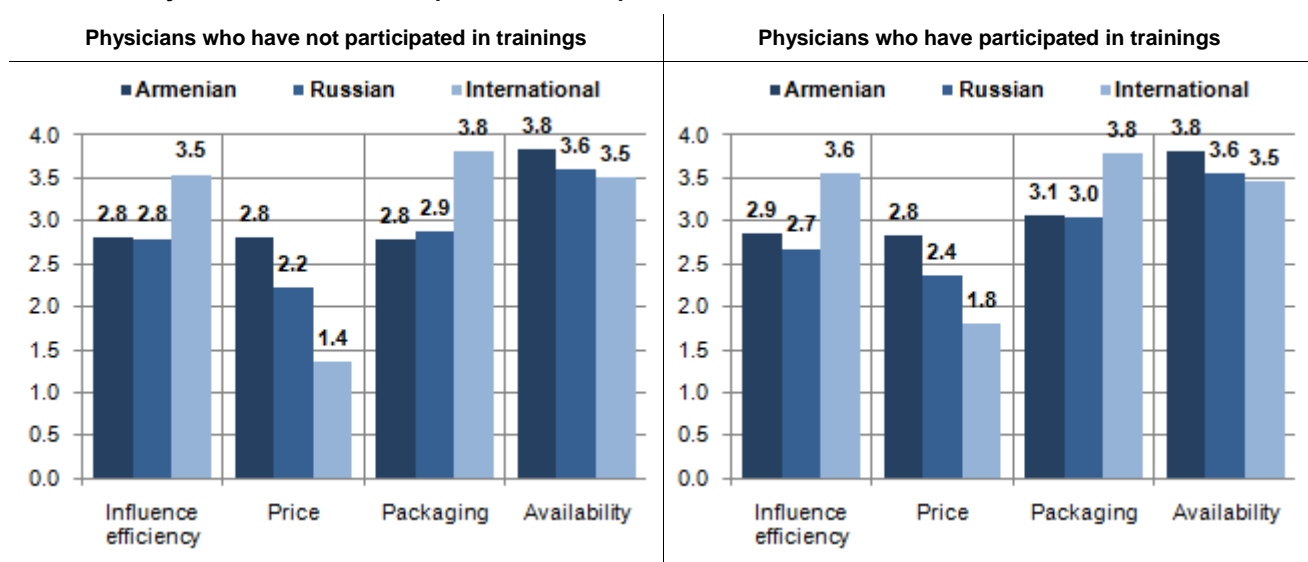
Characteristics of pharmaceutical products	Armenian			Russian			International		
	2008	2011	Change	2008	2011	Change	2008	2011	Change
Influence efficiency	2.8	2.5	↓	3.1	3.0	↓	3.3	3.3	=
Price	3.0	2.8	↓	2.4	2.4	=	1.9	2.1	↑
Packaging	2.7	2.6	↓	3.1	3.2	↑	3.5	3.7	↑
Availability	3.2	3.5	↑	3.1	3.2	↑	2.9	3.1	↑

During the survey of 2011 bad consequences of global financial-economic crisis and inflation were notable. Armenian products (potatoes, fruits, etc.) lose their popularity among consumers because of their expensiveness. All these have their influence on evaluations of Armenian pharmaceutical products, too.

4.3.2 Physicians' assessment of Armenian pharmaceutical products

Physicians did not have any problems with evaluating pharmaceutical products thanks to their professionalism and regularity of using/prescribing pharmaceutical products. 90-95% of them evaluated the proposed characteristics based on their knowledge and work experience.

Chart 12 - Physicians evaluations of pharmaceutical products' characteristics



Just like consumers physicians also think that Armenian pharmaceutical products are cheaper and more available, while imported ones are of better quality and are more efficient. Their preferences of imported pharmaceutical products influence their behavior in prescribing/advising pharmaceutical products to patients.

Rankings given to main characteristics of pharmaceutical products by physicians went slightly down. If in the case of consumers they gave answers based on their emotions, physicians have other (definitely better) justification for doing so (see Table 38).

Table 38 - Physicians' ranking given to some characteristics of pharmaceutical products for the period 2008-2011

Characteristics of pharmaceutical products	Armenian			Russian			International		
	2008	2011	Change	2008	2011	Change	2008	2011	Change
Influence efficiency	2.9	2.8	↓	3.0	2.8	↓	3.8	3.5	↓
Price	2.9	2.8	↓	2.0	2.2	↑	1.5	1.4	↓
Packaging	3.2	2.8	↓	2.9	2.9	=	4.0	3.8	↓
Availability	3.9	3.8	↓	3.8	3.6	↓	3.7	3.5	↓

In case of Armenian pharmaceutical products the decrease of ranks is very small. However, there are some realities in the market of pharmaceutical products that were expressed in physicians' evaluations. Particularly we can mention physicians' opinion about bad quality of Arpimed's psychotropic pharmaceutical products, their simple and confusing packages, as well as bad packaging of Yerevan CPF's pharmaceutical products. It was also criticized the position of Vitamax-E, which sells some of its products only in its own pharmacies.

Decrease of ranks for imported pharmaceutical products can be partly explained with changes of import structure.

Armenia annually imports pharmaceutical products from 60 countries in total amount of USD 90-100 million. American pharmaceutical products always dominated in Armenian market. In 2007 the whole import from the U.S. comprised 42% (see the Reference). The following two years it was reduced by 2.7 times because of the global financial-economic crisis. Instead, an import volume of European, Russian and Belarusian pharmaceutical products has increased. Decrease of American pharmaceutical

products had its influence on physicians' evaluations of imported pharmaceutical products. At the same time not all European pharmaceutical products are popular among Armenian physicians. They have

Reference						
Pharmaceutical products' import by countries in 2007-2009						
Countries (Top 20)	2007		2008		2009	
	Thousand dollar	%	Thousand dollar	%	Thousand dollar	%
Total	99,813.6	100.0%	95,565.9	100.0%	92,191.0	100.0%
USA	42,087.5	42.2%	23,073.5	24.1%	15,408.7	16.7%
France	7,534.5	7.5%	11,397.2	11.9%	11,452.8	12.4%
Germany	6,411.7	6.4%	8,539.6	8.9%	10,166.6	11.0%
Switzerland	4,512.5	4.5%	5,213.0	5.5%	8,469.1	9.2%
Italy	3,214.6	3.2%	3,924.9	4.1%	5,145.8	5.6%
Russia	2,777.3	2.8%	4,064.0	4.3%	4,337.9	4.7%
Hungary	3,852.2	3.9%	4,542.3	4.8%	4,018.7	4.4%
Netherlands	2,050.6	2.1%	2,481.0	2.6%	3,551.7	3.9%
Slovenia	2,741.7	2.7%	3,926.4	4.1%	3,255.0	3.5%
Great Britain	2,489.8	2.5%	2,307.0	2.4%	2,278.1	2.5%
Belgium	1,522.7	1.5%	2,200.5	2.3%	2,190.7	2.4%
Poland	1,728.4	1.7%	2,179.1	2.3%	2,120.8	2.3%
Austria	1,663.5	1.7%	1,715.6	1.8%	1,904.9	2.1%
Bulgaria	1,277.4	1.3%	1,679.8	1.8%	1,789.2	1.9%
Egypt	2,292.6	2.3%	2,335.4	2.4%	1,744.8	1.9%
Ukraine	1,597.8	1.6%	2,324.8	2.4%	1,521.0	1.6%
India	1,408.1	1.4%	1,445.2	1.5%	1,221.7	1.3%
Denmark	1,011.5	1.0%	1,995.9	2.1%	1,212.2	1.3%
Belarus	947.4	0.9%	1,091.1	1.1%	1,176.8	1.3%
Spain	574.5	0.6%	864.1	0.9%	1,176.2	1.3%
Other (>40) countries	8,117.3	8.1%	8,265.5	8.6%	8,048.3	8.7%

Source: "RA foreign trade", 2007-2009 according to 2-digit classification of FEA, NSS, 2008-2010

heavily criticized Bulgarian and Ukrainian pharmaceutical products, as well as products of Indian, Georgian and Chinese origin.

Although ranking of Armenian pharmaceutical products' characteristics has decreased, yet 72% of physicians mentioned that *they would advise their relatives and friends to use Armenian pharmaceutical products*, and only 28% said they would not do so. Those are physicians who have not participated in trainings. Physicians who have participated in trainings trust more Armenian pharmaceutical products: 80% of them said they would advise their relatives and friends to use Armenian pharmaceutical products. Three years ago only 54% of physicians were ready to make this advice.

4.3.3 Pharmacists' assessment of Armenian pharmaceutical products by pharmacists

Pharmacists' evaluations confirm others' evaluations of Armenian pharmaceutical products. According to them Armenian pharmaceutical products are relatively cheap and more available than imported ones. Instead imported pharmaceutical products are of better quality; more efficient and nicely packaged (see Chart 9).

Majority of pharmacists (96%) gave ranking based on their work experience. Pharmacists' evaluations have changed partly. It is pleasing that Armenian pharmaceutical products are on the same positions as before.

Chart 13 - Pharmacists' evaluations of pharmaceutical products' characteristics

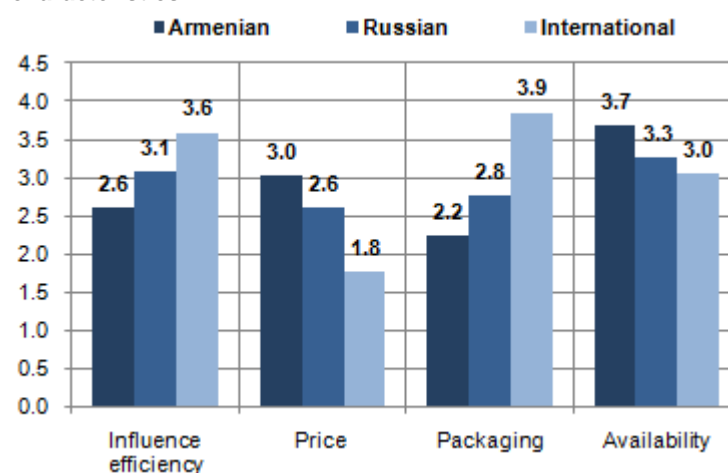


Table 39 - Pharmacists' ranking given to characteristics of pharmaceutical products for the period 2008-2011

Characteristics of pharmaceutical products	Armenian			Russian					
	2008	2011	Change	2008	2011	Change	2008	2011	Change
Influence efficiency	2.6	2.6	=	2.9	3.1	↑	3.5	3.6	↑
Price	2.7	3.0	↑	2.7	2.6	↓	2.1	1.8	↓
Packaging	2.4	2.2	↓	2.7	2.8	↑	4.0	3.9	↓
Availability	3.7	3.7	=	3.3	3.3	=	3.2	3.0	↓

66% of pharmacists have mentioned that *they would advise their friends and relatives to use Armenian pharmaceutical products*. In 2008 only 63% of pharmacists were ready to do so.

5 USERS' BEHAVIOR WHEN CONSUMING OR PRESCRIBING PHARMACEUTICAL PRODUCTS

5.1 FACTORS INFLUENCING CONSUMERS' DECISIONS TO BUY PHARMACEUTICAL PRODUCTS

Pharmaceutical products are one of those exclusive products in the case of which consumers rely on others' advices for purchasing. Those advisors are physicians and pharmacists; professionals that are providing information on pharmaceutical products, their usage and efficiency. Since the use of pharmaceutical products is related to people's health, consumers try to make decisions on using certain pharmaceutical products by following physicians' and pharmacists' advices. That is why they have exclusive role in the circulation of pharmaceutical products: **they are really influencing consumers' decision to buy pharmaceutical products.**

Chart 14 - Factors influencing consumers' decision to buy pharmaceutical products

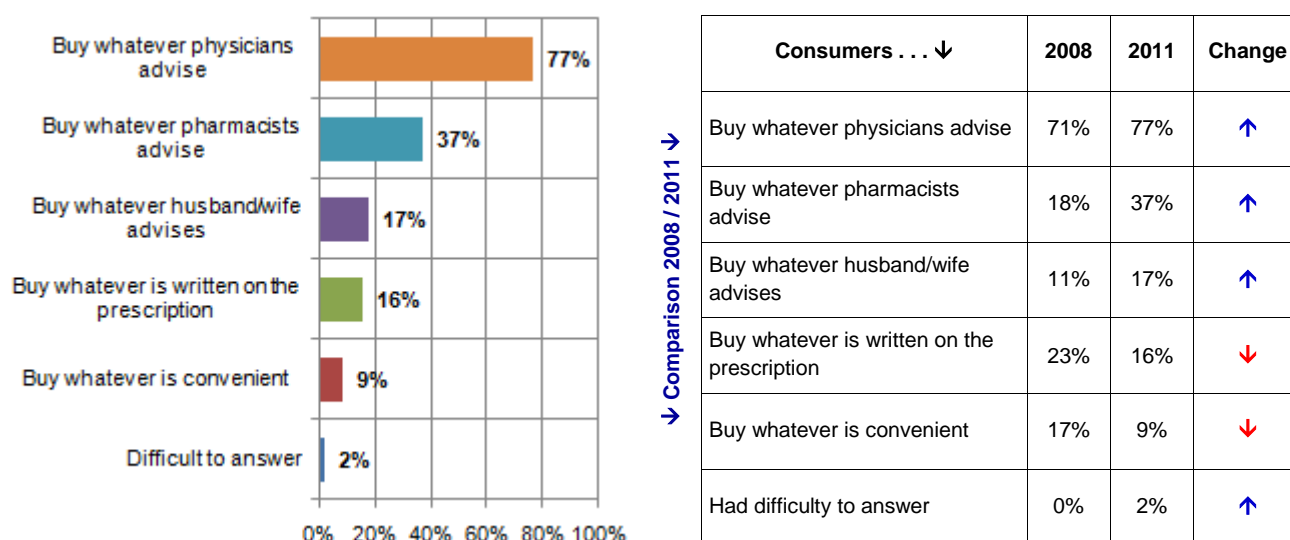


Chart 14 shows that consumers make decisions based on different sources of information while buying pharmaceutical products. In the cases of serious illnesses, when people do not have much knowledge or it is risky to make decisions alone, they address physicians. In the cases of relatively light (minor) illnesses (headache, pressure variation, flu) consumers address pharmacists, take advices from their relatives or make decisions on their own. If we compare consumers' advisors, physicians are on the first place. Almost in all cases their advice is irreversible for consumers. Data of Chart 14 clearly show that physicians are the main people who influence consumers' decision to buy certain pharmaceutical products.

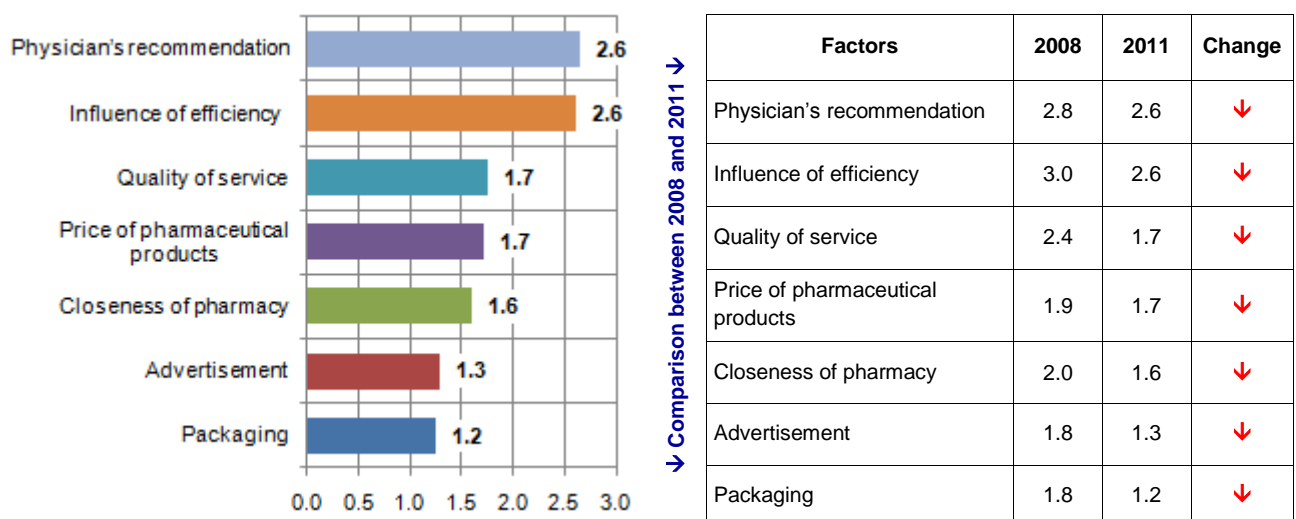
For the past 3 years physicians' role in making decisions on buying pharmaceutical products has increased (becoming 77% from 71%). The role of pharmacists has also increased (about twice) and the number of consumers who make decisions on their own has decreased dramatically (about twice). The conclusion is that for the past 3 years consumers became more dependent on physicians and pharmacists from the viewpoint of purchasing pharmaceutical products.

The process of making decision on buying pharmaceutical products does not end with physicians' or pharmacists' advice. Various new factors became important in the process of forming consumers' decision. They are:

- *Price of pharmaceutical products* - in various pharmacies prices for the same product can be different, and required/prescribed pharmaceutical products can have analogues which are sold at significantly different prices;
- *Physician's recommendations* - which can be so important that consumers may import certain pharmaceutical products even from abroad, just to make sure this is the one prescribed by his/her physician (although the analogue is sold at pharmacies);
- *Packaging* - when there is a choice consumers will buy pharmaceutical products with nicer packaging;
- *Closeness of the pharmacy* - consumers may be short of time and substitute the prescribed pharmaceutical products with the analogues purchased from the closest pharmacy;
- *Quality of service at pharmacy* - consumers may prefer to make purchases only from pharmacies with higher quality of servicing;
- *Advertisement of pharmaceutical products* - consumers may prefer to buy pharmaceutical products which are familiar to them from advertisements, if there is choice.

Importance of these factors has been assessed by consumers based on 3-scale system, where "3" stands for very important, "2" for important and "1" for not important. The results of factors' ranking are presented below.

Chart 15 - Factors influencing consumers' decision to buy pharmaceutical products and their importance



The ranking once again prove physicians' exclusive role in circulation of pharmaceutical products. Physicians' opinion (recommendation) has become more valuable for consumers for the last 3 years, than efficiency influence of pharmaceutical products. Chart 15 attests that those characteristics of Armenian pharmaceutical products which are considered as advantage (cheap prices and availability) have less importance for consumers. It can be concluded that **consumers are ready to pay higher prices in order to obtain more efficient and high quality pharmaceutical products.**

Physicians know very well the importance of their opinion and recommendations for consumers. That is why; sometimes they take advantage of this factor. 50% of consumers (34% in 2008) have stated they had situations when while prescribing a pharmaceutical product physicians "advised" that "the pharmaceutical products of particular producer or particular origin must be bought". 8% of consumers always face such kind of situations, and 24% face such kind of situations very often. In 2008 the indicators were consequently 2% and 14%. It is obvious that during the past 3 years consumers' dependence on physicians has increased, and they have started taking advantages of that situation.

76% of consumers (88% in 2008) have stated that *they follow physicians' advice*. The rest of consumers behave differently. 7% of them (5% in 2008) being upset from this situation consults with other physicians, and 7% consults with pharmacists or other specialists before making purchases.

However, sometimes consumers cannot find the prescribed pharmaceutical products in pharmacies. How do they deal with such situations? 61% of them (83% in 2008) try to find these pharmaceutical products in other pharmacies, contact other individuals, even their relatives who live abroad. Only 30% of consumers (14% in 2008) tend to substitute prescribed pharmaceutical products with their analogues. Thus, even though consumers have started making decisions on their own from time to time, they still continue following physicians' advices, trying to find the pharmaceutical products physicians have prescribed.

5.2 PHYSICIANS BEHAVIOR

Physicians confirmed consumers' statements regarding to their role in circulation of pharmaceutical products. 61% of physicians (62% in 2008) openly mentioned that they mention names of pharmaceutical producers and brands. In fact, 35% of them do this not very often, while 26% - very often, and 6% - constantly. 32% of physicians have stated that while prescribing pharmaceutical products they never mention the names of pharmaceutical producers and brands. Another 7% of physicians had difficulty to answer this question or did not want to answer the question.

Physicians explain their behavior with the fact that their only purpose is the allowing customers to use high quality pharmaceutical products. Below are presented the motives which lead physicians in prescribing pharmaceutical products.

Table 40 - Physicians' bases for prescribing certain pharmaceutical products

Bases and motivation	Share	
	Physicians who have not participated in trainings	Physicians who have participated in trainings
They prescribe the most efficient pharmaceutical products for a certain illness regardless their origin or number of analogues	75%	77%
They prescribe based on the patient's social or financial situation	10%	20%
They mention all names of analogues and let customers choose	8%	10%
They prescribe such pharmaceutical products that are encouraged by suppliers	3%	-
They prescribe based on the price/quality combination of pharmaceutical products	3%	-
They prescribe based on the origin of pharmaceutical products (must be imported)	3%	-
They prescribe based on the peculiarities of patient's organism	1%	-
They prescribe based on the origin of pharmaceutical products (must be Armenian)	1%	-
They prescribe based on the proficiency of pharmaceutical products	1%	3%
They prescribe based on the availability of pharmaceutical products	1%	7%

It will be hard to claim physicians for being "absolutely honest" in their answers. Just like in the case of 2008's survey, this time as well many participants of pharmaceutical products' market, including producers, pharmacy representatives and physicians themselves stated that in all clinics cooperation between pharmaceutical product suppliers, i.e. importers/producers, and physicians is very common. Cooperation lies within the fact that physicians are motivated by pharmaceutical product suppliers to contribute to the sale of *encouragers'* pharmaceutical products by prescribing or advising their products. When speaking of such situations physicians mean others and not themselves. Only 3% of physicians honestly admitted that they are encouraged/motivated by pharmaceutical product suppliers (Table 40).

Such motivation appears in a form of financial awards. According to physicians this method is the most efficient way for any pharmaceutical product supplier for entering Armenian pharmaceutical market.

Today Georgian pharmaceutical suppliers are very active in applying this method, especially representatives of *World Medicine* Company. In 2008 physicians answered that importers were more active in this matter, but in 2011 there is no big difference between importers and producers. Most probably, Armenian pharmaceutical enterprises have also employed this method of motivating physicians into their marketing strategy.

According to different specialists, physicians who get involved in such cooperation break various moral norms, since pharmaceutical products are directly related to people's health and physicians must prescribe the most efficient ones instead of those from which they might have benefits. What arguments do physicians bring to this accusation? 8% of physicians (4% on 2008) stated that they mention few analogues in their prescriptions and let customers choose themselves. 75% of physicians (89% in 2008), without confirming or denying the fact that they cooperate with pharmaceutical product suppliers, stated that prescribe the most efficient pharmaceutical products regardless their origin, price, availability of analogues. The results of this survey prove that at least 10% of physicians take into consideration patients' social and financial situation while prescribing pharmaceutical products. Those are mainly such physicians who work at polyclinics.

Thus, it can be concluded that until now pharmaceutical products' suppliers still cooperate with physicians and their *efforts* contribute to the sales of their products. The only thing that cannot be evaluated, for understandable reasons, are real dimensions of such cooperation.

5.3 PHARMACISTS' BEHAVIOR

As we have already understood, pharmacists are the second main source of information about Armenian pharmaceutical products for consumers. When advising consumers to use/buy this or that pharmaceutical products they also give information about those products. This function makes pharmacists the second in the circulation process of pharmaceutical products (physicians are the first). Pharmaceutical products' suppliers (importers and producers) are very well aware of this, and just like in the case of physicians they have developed some methods of motivation for this group, too, in order to intensify their sales in retail network. It is again difficult to evaluate the scale of this phenomenon, but its existence is a fact.

In order to analyze pharmacists' behavior certain questions that form logical chain have been advanced. Their answers describe the best the role they have in the process of selling pharmaceutical products.

Table 41 - Answers describing the behavior of pharmacists in the process of selling pharmaceutical products

Question 1. *What share of your customers asks for an advice about which pharmaceutical product is more efficient for a certain illness or which one s/he should buy?*

Answers		Respondents' share
1	Up to 50% of customers ask for an advice	15%
2	50-75% of customers ask for an advice	39%
3	76-100% of customers ask for an advice	34%
4	No one; everyone asks for a certain pharmaceutical product	1%
5	Had difficulty to answer	11%
Total		100%

Question 2. *What share of your customers follow your advice when buying pharmaceutical products? [Distribution of first three lines of Question 1]*

Answers		Respondents' share
1	Up to 50% of customers follow pharmacist's advice	23%
2	50-75% of customers follow pharmacist's advice	36%
3	76-100% of customers follow pharmacist's advice	36%
4	Difficulty to answer	5%
Total		100%

Question 3. *Are there many cases when physicians have written in their prescriptions which country's pharmaceutical product customers should buy or of what pharmaceutical brand?*

Answers		Respondents' share
1	Almost all the prescriptions have such guidance	48%
2	Almost half of the cases	40%
3	Such cases are rare	8%
4	There are no such cases	4%
Total		100%

Question 4. *If there is no such pharmaceutical product at your pharmacy that the customer needs, what do you (pharmacists) do?*

Answers		Respondents' share
1	Offer another analogue	92%
2	Prompt customers where they can buy the pharmaceutical product they need	6%
3	Simply answer that they don't have it	2%
Total		100%

Question 5. *How do customers behave when you (pharmacists) offer them the analogues of pharmaceutical product they need? [Distribution of the first line of Question 4]*

Answers		Respondents' share
1	They certainly buy the pharmaceutical product that pharmacists suggest	4%
2	They mainly buy the pharmaceutical product that pharmacists suggest	31%
3	They sometimes buy it, sometimes don't	57%
4	They mainly do not buy the pharmaceutical product that pharmacists suggest	7%
5	They certainly do not buy the pharmaceutical product that pharmacists suggest	1%
Total		100%

Question 6. *If your pharmacy sells several analogues of the pharmaceutical product that customer needs, do you (pharmacists) offer them all or not?*

Answers		Respondents' share
1	Offer all	54%
2	Offer only those that they find convenient	34%
3	Offer, considering the financial situation of customers	5%
4	Had difficulty to answer	7%
Total		100%

Question 7. *Are there pharmaceutical products which you are motivated to sell? (including financial motivation)*

Answers		Respondents' share
1	Yes	14%
2	No, but would like to be motivated	20%
3	No, and do not want to be motivated	58%
4	No, and had difficulty to answer whether they would like to be motivated or not	8%
Total		100%

Since pharmacists, just like physicians, also have their role in the process of influencing consumers' decision to buy pharmaceutical products, their interests collide. The problem lays within the fact that majority of consumers (see Table 41, Question 3) who visit pharmacies with prescriptions, have a certain guidance *to buy only certain country's or producers' pharmaceutical product, which is impossible to substitute with analogues*. 48% of pharmacists (18% in 2008) stated that all customers have certain guidance, 40% (76% in 2008) stated that each second customer has a certain guidance. Pharmacists do not like this situation for two reasons:

- 1) If consumers do not find the prescribed pharmaceutical product in their pharmacies they prefer to buy it from another pharmacy. Not all consumers are ready to substitute prescribed pharmaceutical products with their analogues (Table 41, Question 5);
- 2) As physicians' opinion is more valuable for consumers pharmacists do not get a chance to influence consumers' decision and thus do not get a chance to benefit from the situation.

Some creative pharmaceutical suppliers have managed to solve this problem. Most probably with the initiative of pharmaceutical product suppliers, sophisticated triangles (pharmaceutical product suppliers + physicians + pharmacists) were created with common interests. Then the problem is solved the following way: *physicians not only prescribe certain country's/producer's name in their prescriptions but also addresses of pharmacies where customers can buy the pharmaceutical products*. This suggests that pharmacists should also have some motivation just like physicians. It is confirmed with two answers of pharmacists.

- 3) 34% of pharmacists (20% in 2008) stated that in case there are many analogues of certain pharmaceutical products they offer only the one they find convenient (see Table 41, Question 6);
- 4) At least 14% of pharmacists (21% in 2008) confirmed that there are pharmaceutical products which they are motivated to sell (understanding financial motivation from pharmaceutical product suppliers). 20% of pharmacists are ready to cooperate with pharmaceutical product suppliers in return of financial motivation (see Table 41, Question 7). We guess that those figures are actually higher, since there are pharmacists who cooperate with pharmaceutical product suppliers but hide it.

Thus, some pharmacists, just like physicians, are motivated to sell certain pharmaceutical products, acting as interested and non-objective parties.

6 PHARMACEUTICAL PRODUCTS USERS' OPINION ABOUT *HEALTHY NATION, HEALTHY ECONOMY* CAMPAIGN

Survey outputs attest that *Healthy nation, healthy economy* Campaign has ensured efficient results from the viewpoint of raising awareness about Armenian pharmaceutical products among users. This conclusion was made based on the comparison of responses given by physicians who have participated in trainings and all other users of pharmaceutical products. On one hand, it is difficult to evaluate how those differences can be attributed to the Campaign. On the other hand, it is obvious that physicians who have participated in trainings are of more positive opinion about Armenian pharmaceutical products. In order to be sure of this we can look at the data presented in following tables and charts:

Popularity of Armenian pharmaceutical products, see Table 8 (page 14);

1. Awareness sources of Armenian pharmaceutical products, see Chart 3 (page 18) and Chart 4 (page 18);
2. Popularity of Armenian pharmaceutical enterprises, see Table 16 (page 21);
3. Sources of information about Armenian pharmaceutical enterprises, see Table 20 (page 24) and Table 21 (page 25);
4. Importance of the origin of pharmaceutical products, see Table 29 (page 32);
5. Evaluations given to characteristics of pharmaceutical products, see
6. Chart 12 (page 36);
7. Motivations of prescribing pharmaceutical products, see Table 40 (page 41).

Despite the positive results that *Healthy nation, healthy economy* Campaign has ensured, it did not have popularity among other users of pharmaceutical products. It is obvious from the data below.

Chart 16 - Consumers' awareness about *Healthy nation, healthy economy* Campaign

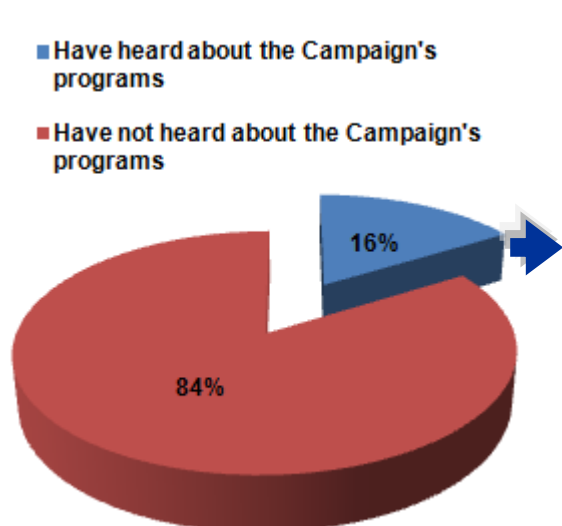


Table 42 - Programs of the Campaign known among consumers

Programs of the campaign	%
TV programs	48%
Trainings	18%
TV news	16%
Advertisements	11%
Opening ceremony at Golden Tulip Hotel Yerevan	6%
Newspaper articles	6%
Acquaintances	5%
Regional event in Vanadzor	3%
Articles in Internet	2%
Information on Facebook	2%
Regional event in Gyumri	2%
Brochures	2%
Commercial posters	2%

60% of consumers could not answer what impressions they had from the Campaign's programs which were familiar to them. For consumers more or less memorable programs of the Campaign were TV programs (9%) and trainings (9%). The popularity of the latter is connected with the fact that some of the consumers have participated in the trainings as health sphere employees or have heard about it from their acquaintances.

Physicians, who have not participated in trainings, are not well informed about the Campaign, neither.

Chart 17 - Awareness of *Healthy nation, healthy economy* Campaign among physicians who have not participated in trainings

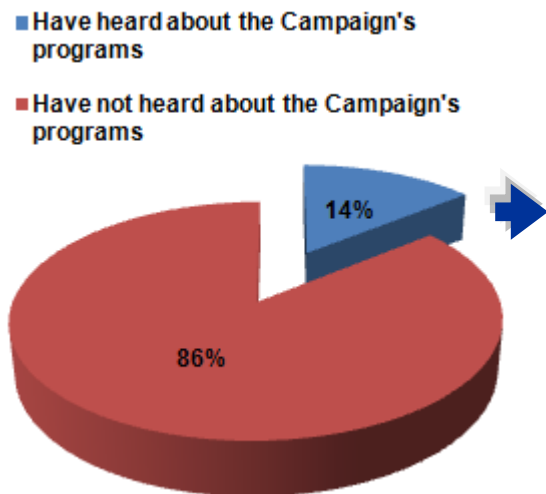


Table 43 - Programs of the campaign known to physicians who have not participated in trainings

Programs of the Campaign	%
TV programs	20%
Regional event in Gyumri	20%
Opening ceremony at Golden Tulip Hotel Yerevan	10%
Trainings	10%
Presentations (?)	10%
Interviews (?)	10%

(?) - Not clear what they meant

The small number of physicians, who had heard about the Campaign's programs, makes it difficult to evaluate the awareness level. It is obvious that they have little information about those programs. In the case of pharmacists we have the same situation.

Chart 18 - Pharmacists' awareness of *Healthy nation, healthy economy* Campaign

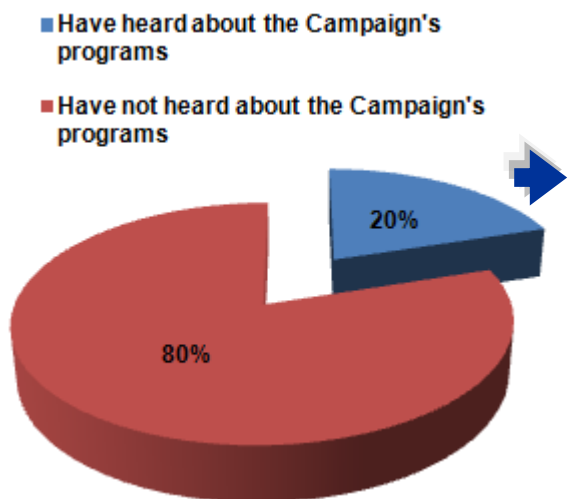


Table 44 - Programs of the campaign known among physicians

Programs of the campaign	%
Press conferences	53%
TV programs	18%
Newspaper articles	18%
Articles in Internet	12%
TV news	6%
Advertisements	6%
Opening ceremony at Golden Tulip Hotel Yerevan	6%
Regional event in Vanadzor	6%

Low popularity of *Healthy nation, healthy economy* Campaign among pharmaceutical product users cannot be an evaluation of their programs' efficiency. In order to evaluate it objectively we should take into consideration the remarks of targeted groups, especially of physicians who had the opportunity to participate in programs or heard about them from different sources. Small group of 30 physicians was interviewed within the frames of this study. Statistics, showing in which events they have participated as well as their ranking of events' efficiency on raising awareness about Armenian pharmaceutical products is presented below.

Table 45 - Physicians' participation in events and ranking of their efficiency

Programs of the campaign	Participants' share	Efficiency rank*, where 5 = very efficient ... 1 = inefficient
Opening ceremony at Golden Tulip Hotel Yerevan	40%	3.9
Regional event in Vanadzor	30%	4.0
Regional event in Gyumri	27%	3.6
Trainings	17%	4.1
Advertisements	10%	3.5
Interviews	10%	3.5
Articles in Internet	10%	3.7
TV news	7%	3.6
TV programs	3%	3.8
Press conferences	3%	3.7
Newspaper articles	3%	3.8
Videos in You Tube	3%	4.3
Presentation	3%	n/a

(*) - From the viewpoint of raising awareness about Armenian pharmaceutical products

Table 46 attests that public events (opening ceremonies, presentations, trainings) had more popularity. They are also memorable and received high ranks. Other events were less popular, since not all physicians use Internet, TV or newspapers in order to receive up to date information.

It is more important to analyze the conclusions physicians had made after participating in the events of *Healthy nation, healthy economy* Campaign. Part of physicians has become more loyal towards Armenian pharmaceutical products. Most of them (43%) began considering Armenian pharmaceutical products as alternative for imported ones. 10% of physicians began preferring Armenian pharmaceutical products, and another 10% now trusts Armenian pharmaceutical products (see below).

Table 46 - Change of physicians' perception towards Armenian pharmaceutical products after participating in the Campaign's events

Recorded changes	Share
After the campaign physicians have started to offer both imported and Armenian pharmaceutical products	43%
After the campaign physicians prefer Armenian pharmaceutical products	10%
After the campaign physicians consider Armenian pharmaceutical products trustworthy	10%
After the campaign there has been no change in physicians' preferences	7%
After the campaign physicians still prefer imported pharmaceutical products	7%
Had difficulty to answer	23%
Total	100%

Thus, it can be concluded that ***Healthy nation, healthy economy* Campaign has raised awareness level of its participants about Armenian pharmaceutical products and ensured favorable attitude.** Moreover, the most important thing is that ***some physicians have changed their preferences to Armenian pharmaceutical products.***

7 SURVEY RESULTS OF PHARMACEUTICAL ENTERPRISES

7.1 DYNAMICS OF ACTIVITY INDICATORS OF PHARMACEUTICAL ENTERPRISES

17 enterprises are involved in production of Armenian pharmaceutical products. These enterprises have licenses for the production of pharmaceutical products. However, people and professionals (physicians and pharmacists) consider pharmaceutical enterprises *those whose products are sold in pharmacies*. Such licensed pharmaceutical enterprises as Armenikum+ (producing - Armenikum), Lizin (producing - medical alcohol 70% or 96%), Leykoalex (producing - Corn plaster) were not mentioned by physicians and pharmacists as pharmaceutical enterprises. While Vitamax-E (producing biologically active additives, lyophilized fruit powders, etc.), Antaram (producing medical herbs and plants), Hagenas (producing biologically active additives), which do not have production licenses, are considered as pharmaceutical enterprises. In this report we have taken into consideration physicians' and pharmacists perceptions and have targeted those enterprises that sell their products at hospitals and pharmacies.

There are about 14-15 such enterprises; just like in 2008. During the period of 2008-2011 the number of pharmaceutical enterprises has not changed. Providing not big number of enterprises, it was decided to involve them all in our survey. However, for different reasons it was impossible to do so. As a result, only 9 enterprises have been surveyed. Out of the list of large producers only Esculap and Pharmatek were not included in the list, because their directors rejected open communication.

Below are presented the dynamics of main indicators that describe operations of Armenian pharmaceutical enterprises for the period of 2008-2011. Before making any conclusions based on those indicators, we should once again remember that the survey period coincided with the peak of the global financial-economic crisis (2008 autumn - 2009). That crisis had significantly affected the Armenian economy. In 2009 there was a decrease of GDP by 14.4%, 30% decrease of exports, and poverty had increased up to 34.1%.

Another important fact; it has been already mentioned that not all pharmaceutical enterprises were eager to uncover their operation indicators, although they can receive and use the data of the current survey. That is why; **it was decided to present the operation indicators not in their absolute numbers but as shares of factors that describe the changes**. This way we will prevent those enterprises, which were not open for communication, from receiving valuable information about all the other enterprises.

1. Changes of SALES volumes

Pharmaceutical enterprises	2009			2010		
	Rating of sale volume	Change of sales volumes comparing to previous year	Change of sales volumes Increase (↑) Same (=) Decrease (↓)	Rating of sales volumes	Change of sales volumes comparing to previous year	Change of sales volumes Increase (↑) Same (=) Decrease (↓)
Liqvor	1	20%	↑	1	33%	↑
Arpimed	3	6%	↑	3	28%	↑
Yerevan CPF	2	3%	↑	2	4%	↑
Vitamax-E	5	-9%	↓	5	-36%	↓
Medical-Horizone	6	50%	↑	7	0%	=
Hagenas	4	100%	↑	4	100%	↑
Bizon-1-1	8	163%	↑	8	-10%	↓
NOQI	7	25%	↑	6	40%	↑
Insi	9	40%	↑	9	36%	↑

2. Sales distribution by DOMESTIC MARKET vs. EXPORTS

Pharmaceutical enterprises	2008			2009			2010		
	Domestic market	Exports	Sales tendency	Domestic market	Exports	Sales tendency	Domestic market	Exports	Sales tendency
Liqvor	70%	30%	▼	70%	30%	▼	65%	35%	▼
Arpimed	70%	30%	▼	70%	30%	▼	65%	35%	▼
Yerevan CPF	39%	61%	▲	41%	59%	▲	43%	57%	▲
Vitamax-E	60%	40%	▼	70%	30%	▼	70%	30%	▼
Medical-Horizone	-	100%	▲	-	100%	▲	40%	60%	▲
Hagenas	80%	20%	▼	70%	30%	▼	50%	50%	▲
Bizon-1-1	88%	12%	▼	33%	67%	▲	37%	63%	▲
NOQI	20%	80%	▲	20%	80%	▲	20%	80%	▲
Insi	90%	10%	▼	80%	20%	▼	80%	20%	▼

where:

▼ - enterprises which mainly sell at domestic market

▲ - mainly exporting enterprises

3. Change in EXPORT volumes

Pharmaceutical enterprises	2009			2010		
	Rating of export volume	Change in export volumes comparing to previous year	Change in export volumes Increase (↑) Same (=) Decrease (↓)	Rating of export volumes	Change in export volumes comparing to previous year	Change in export volumes Increase (↑) Same (=) Decrease (↓)
Liqvor	2	20%	↑	2	56%	↑
Arpimed	3	6%	↑	4	50%	↑
Yerevan CPF	1	-1%	↓	1	1%	↑
Vitamax-E	6	-32%	↓	7	-36%	↓
Medical-Horizone	4	50%	↑	6	-40%	↓
Hagenas	5	200%	↑	3	233%	↑
Bizon-1-1	8	+ 15 times	↑	8	-15%	↓
NOQI	7	25%	↑	5	40%	↑
Insi	9	180%	↑	9	36%	↑

4. Export COUNTRIES and their TOP 10

(According to official statistics)

Total export indicators ↓	2007	2008	2009
Number of export countries	26	20	17
Export volumes, thousand USD	3,080.0	3,658.7	3,849.0
Shares of Top 10 countries in export volume	92.9%	98.6%	99.4%

Export countries	2008			2009		
	Rating of export volumes	Change in export volumes comparing to previous year	Change in export volumes Increase (↑) Same (=) Decrease (↓)	Rating of export volumes	Change in export volumes comparing to previous year	Change in export volumes Increase (↑) Same (=) Decrease (↓)
Georgia	1	34%	↑	1	28%	↑
Russia	2	-3%	↓	2	-18%	↓
Uzbekistan	4	15%	↑	3	41%	↑
Belarus	3	135%	↑	4	-69%	↓
Ukraine	5	67%	↑	5	2%	↑
Kazakhstan	6	+ 49 times	↑	6	100%	↑
Tajikistan	7	(*)	↑	7	327%	↑
Moldova	9	-76%	↓	8	578%	↑
Germany	10	-68%	↓	9	916%	↑
Belgium	8	850%	↑	10	207%	↑
Other countries	11-20	-77%	↓	11-17	-54%	↓

(*) - in 2007 no pharmaceutical product was exported to Tajikistan

5. Change in NUMBER OF EMPLOYEES

Pharmaceutical enterprises	2009			2010		
	Rating of number of employees	Change in number of employees comparing to previous year	Change in number of employees Increase (↑) Same (=) Decrease (↓)	Rating of number of employees	Change in number of employees comparing to previous year	Change in number of employees Increase (↑) Same (=) Decrease (↓)
Liqvor	2	0%	=	2	0%	=
Arpimed	3	13%	↑	3	14%	↑
Yerevan CPF	1	0%	=	1	0%	=
Vitamax-E	4	21%	↑	4	27%	↑
Medical-Horizone	7	5%	↑	7	0%	=
Hagenas	5	-4%	↓	5	-13%	↓
Bizon-1-1	8	0%	=	9	-10%	↓
NOQI	6	0%	=	6	0%	=
Insi	9	14%	↑	8	63%	↑

6. MARKETING SUBDIVISIONS and the change in number of their employees

Pharmaceutical enterprises	Availability of marketing subdivision, 2010		Change in number of employees of marketing subdivision (comparing 2010 with 2008)	Employees' number has ... Increased (↑) Remained the same (=) Decreased (↓)
	Yes	No		
Liqvor	X		167%	↑
Arpimed	X		0%	=
Yerevan CPF		X	-	
Vitamax-E	X		(*)	↑
Medical-Horizone	X		33%	↑
Hagenas	X		0%	=
Bizon-1-1		X	-	
NOQI		X	-	
Insi		X	-	

(*) - in 2008 Vitamax-E did not have a separate sub-division

7. Change of marketing BUDGET

Pharmaceutical enterprises	2009			2010		
	Rating of marketing costs	Change of marketing budget comparing to previous year	Change of marketing budget. Increase (↑) Same (=) Decrease (↓)	Rating of marketing costs	Change of marketing budget comparing to previous year	Change of marketing budget. Increase (↑) Same (=) Decrease (↓)
Liqvor	2	0%	=	2	1%	↑
Arpimed	3	14%	↑	3	13%	↑
Yerevan CPF	n/a	-		n/a	-	
Vitamax-E	n/a	-		5	-	
Medical-Horizone	4	33%	↑	4	63%	↑
Hagenas	1	400%	↓	1	150%	↑
Bizon-1-1	n/a	-		n/a	-	
NOQI	n/a	-		n/a	-	
Insi	5	-		6	33%	↑

The main conclusions describing dynamics of indicators of Armenian pharmaceutical enterprises' operation for 2008-2010 are the following.

- 1) Despite the global financial-economic crisis, Armenian pharmaceutical enterprises have ensured impressive results in the pharmaceutical sphere. Sales of the main large enterprises, except Vitamax-E, have increased. Hagenas has potential to become one of relatively large enterprises.
- 2) According to the results of 2010, in the sales of 5 enterprises (out of 9) export is dominant.
- 3) Among the surveyed enterprises only in case of Vitamax-E there is notable decrease in export volumes. In case of other enterprises there is relative stability and increase in export volumes. Liqvor and Arpimed are among those enterprises.
- 4) According to official statistics, during the years of global financial-economic crisis volumes of Armenian pharmaceutical exports have increased (by 25% in 2007-2009). Centralization of export market is noted. The main three markets of Armenian pharmaceutical products are Georgia, Russia and Uzbekistan. Pharmaceutical field stands out among other economic branches of Armenia with the increase of its export indicators.
- 5) According to aggregation of results of 9 pharmaceutical enterprises, the number of field employees has grown by 7% in 2008-2010. Among the mentioned enterprises only in case of Hagenas and Bizon-1 there was a reduction of employees' number.
- 6) 6 out of 9 surveyed enterprises sell their products through separate marketing subdivisions. During the period of 2008-2010 in all the mentioned 6 enterprises the number of marketing subdivisions' employees has increased or remained the same. Budgets of marketing activities have increased in all 6 enterprises.

7.2 PHARMACEUTICAL ENTERPRISES ABOUT *HEALTHY NATION, HEALTHY ECONOMY* CAMPAIGN

Pharmaceutical enterprises' opinion on *Healthy nation, healthy economy* Campaign is mainly positive. Responses of enterprises' directors attest that main achievement of the campaign should be considered the following:

! *That was the first time when not only one separate enterprise was presented to people and professionals but almost all representatives (producers) of the sector were presented. It created a good image about Armenian pharmaceuticals' industry. Those public events also have a psychological influence, as only outstanding enterprises are able to present themselves at such public events.*

On the other hand *Healthy nation, healthy economy* Campaign is not considered as exclusive and special marketing action. Each of them separately implemented a part of events which were included in the program of Campaigns. Within those events informative presentations and TV programs are meant especially.

According to directors of pharmaceutical enterprises, which are members of MPI Union (Medicine Producers and Importers Union of Armenia), *Healthy nation, healthy economy* Campaign became good guidance for MPI Union itself. Thus, if Armenian pharmaceutical enterprises want to implement a large-scale informative event together, they can do it through MPI Union and replicate the format of this Campaign.

In general pharmaceutical enterprises do not have objective bases for the evaluation of possible benefits of the campaign for their enterprises. It has been only 3-4 months since the Campaign and its results could hardly become tangible. In order to understand the influence it is necessary to do a long-term monitoring.

8 SUMMARY

8.1 CONCLUSIONS

This report has ensured two important results: a) important information about the perception and attitude of pharmaceutical product users towards Armenian pharmaceuticals at the beginning of 2011, and b) the change (dynamics) of Armenian pharmaceutical products users' perception and attitude for the period of 2008-2011. Summing up these results allows concluding the following:

1. Armenian pharmaceutical products are more popular at the beginning of 2011 than they were in 2008. Awareness level on Armenian pharmaceutical products has increased among all main groups of users, i.e. among consumers, physicians and pharmacists.
2. Sources, where pharmaceutical product users obtain information about Armenian pharmaceutical products, are different. For consumers the main sources of information are pharmacies and word of mouth. The shares of those two sources have increased 2-2.5 times for the past 3 years. For physicians and pharmacists the main sources of information about Armenian pharmaceutical products are producers. Moreover, their level has increased by 1.5 times for the past 3 years. It is obvious that producers nowadays work more intensively in order to spread information about their products. 3 years ago those producers had pointed out importers as very active in spreading information, but nowadays they work with same intensity. Certainly, this is a positive change. The information about pharmaceutical producers is spread among pharmaceutical product users the same way as in the case of their product.
3. Just like their products, pharmaceutical enterprises themselves have become popular among pharmaceutical product users. Liqvor, Arpimed and Esculap are equally popular among physicians and pharmacists. Pharmatek and Yerevan CPF that were very popular in 2008 have lost their popularity to some point.
4. Results of the survey show that increase of awareness level about Armenian pharmaceutical products did not increase the positive attitude of pharmaceutical product users. It is a pity, because the respondents of this survey were more experienced in using pharmaceutical products. There is an impression that the more pharmaceutical product users become familiar with Armenian pharmaceutical products the more they complain and criticize them. There are objective bases for such conclusion. We can remember from the survey of 2008 that among Armenian pharmaceutical products psychotropic pharmaceuticals of Arpimed and the packaging of Esculap were criticized. In 2011 more pharmaceutical products were criticized by physicians and pharmacists. Today, psychotropic products of Arpimed are still criticized among physicians and pharmacists. Both quality features and packaging of those pharmaceutical products are criticized. Packaging of Yerevan CPF, Narimax produced by Vitamax-E were both criticized. This criticism has its negative impact on general popularity of Armenian pharmaceutical products. This is another reason why imported pharmaceutical products are preferred by majority of pharmaceutical product users. The number of pharmaceutical product users, who are able to make a comparison between imported and Armenian pharmaceutical products, in some cases preferring imported ones, in other cases Armenian ones, has increased, which is very positive. However, Armenian pharmaceutical products are still less competitive.
5. The advantages of Armenian pharmaceutical products are their relatively cheap prices and their availability, although quality features of pharmaceutical products are more valued by consumers. It means that pharmaceutical products users are ready to pay higher prices in order to obtain more efficient and higher quality pharmaceutical products. Consequently, the further success of Armenian pharmaceutical products will be firstly depending on improving their qualitative features and then with their competitive or cheap prices.
6. The survey of 2008 had proved a fact which was not argued by participants of the field. It was physicians' and pharmacists' exclusive influence on consumers when buying pharmaceutical products. Many physicians and pharmacists overuse this influence by cooperating with suppliers

(importers and producers). In fact, it was mentioned that this method is used by importers. According to this year's survey, we can say that three years later it is applied even more intensively. First of all consumers have become more dependent on physicians' and pharmacists' opinion. Second, it is possible that in cooperation chain of *suppliers-physicians or pharmacists*, Armenian pharmaceutical enterprises are as active as importers.

7. The survey of 9 Armenian pharmaceutical enterprises shows that during the period of 2008-2011 they have gone through positive changes, such as export increase, centralization of export markets and expand of export volumes, increase of employees, expand of marketing budgets. We should once again remind that the mentioned period was critical for all branches of Armenian economy.
8. Awareness of consumers towards Armenian pharmaceutical products has increased during the past three years, but their preferences have not changed, and they still prefer imported pharmaceutical products. Today, Armenian pharmaceutical products are more criticized. On the other hand, it is obvious that during this period the sales volumes of Armenian pharmaceutical products have increased. It can be concludes that Armenian pharmaceutical enterprises have expanded volumes of their marketing events, including plans of motivating physicians and pharmacists, which prove to be efficient. It is notable, since Armenian pharmaceutical products do not have the same popularity as imported ones do.
9. *Healthy nation, healthy economy* Campaign has generally solved the problem of raising consumer's awareness about Armenian pharmaceutical products. Physicians who have participated in trainings are more familiar and knowledgeable about any topic of the survey and have positive attitude than those physicians who have not participated in trainings. It is obvious, that there are still some physicians in health institutions (hospitals, policlinics, ambulatories) who are not really aware of Armenian pharmaceutical industry and have deficient information.

8.2 RECOMMENDATIONS

Based on opinions of pharmaceutical product users, two main problems should be solved in order to improve and intensify the use of Armenian pharmaceutical products: a) raise awareness level about Armenian pharmaceutical products, b) improve quality features of Armenian pharmaceutical products. In fact, successful mitigation of these two problems is inter-connected. Awareness raise of Armenian pharmaceutical products and its consistency requires constant marketing actions, which may include:

- Advertisement campaign, including **advertisement** of Armenian pharmaceutical products on TV,
- Organization of **trainings and presentations** among pharmaceutical products users,
- **Intensive work with physicians** via application of various motivation methods.

Another notable fact: not only 8% of physicians think that producers should expand the volumes of motivating them, but also 9% of pharmacists and 3% of consumers are of the same opinion. In fact, the latter group *advises (recommends)* producers not to motivate physicians directly, but *do it in a way so that they will prescribe Armenian pharmaceutical products*. This means that those consumers are ready to use Armenian pharmaceutical products as long as they are prescribed by physicians.

Events meant to hint the use of Armenian pharmaceutical products by targeted groups include number of specific actions. In fact, users of pharmaceutical products use address them all.

Table 47 - Actions needed to intensify the use of Armenian pharmaceutical products according to pharmaceutical product users

Recommendations	Consumers	Physicians	Pharmacists
Armenian pharmaceutical enterprises should improve the quality of their products	35%	45%	65%
Armenian pharmaceutical enterprises should improve the	3%	14%	26%

packaging and appearance of their products			
Armenian pharmaceutical enterprises should advertize their products more intensively	24%	25%	28%
Armenian pharmaceutical enterprises should offer better prices	11%	13%	11%
Armenian pharmaceutical enterprises should motivate physicians	3%	8%	9%
Armenian pharmaceutical enterprises should improve and modernize their production conditions and facilities (especially availability of GMP)	2%	6%	6%
Armenian pharmaceutical enterprises should have wide variety of products	2%	4%	1%
Armenian pharmaceutical enterprises should organize presentations and trainings	3%	7%	-

Taking into consideration the above data, it can be once again stated that the main problem of Armenian pharmaceutical products is to ensure high quality products. In fact, Armenian pharmaceutical products should be of such quality so that they can compete with imported ones. Armenian pharmaceutical industry has successful examples of winning over imported pharmaceutical products, or successfully competing with them. Thus, the main problem of Armenian pharmaceutical enterprises will be to ensure high quality products for the upcoming years.