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Report

**Assessment of the Domestic Perception of
Armenian Pharmaceutical Products:
Market Research Report**

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EXECUTIVE SUMMARY

The assessment of the domestic perception towards the Armenian pharmaceuticals has been conducted in April-July 2008. The research was initiated by the USAID CAPS Project and was conducted by AM Partners Consulting Company. The assessment has resulted in outputs that uncover pharmaceuticals' market participants' awareness, perception, and purchasing behavior issues for various interested entities. Answers of all mentioned questions are very important for further implementation of promotional projects for Armenian pharmaceuticals in domestic market.

The first and main evaluators of Armenian pharmaceuticals are consumers. Their perception of consuming pharmaceuticals of Armenian origin has direct influence on local producers' operation. Thus, the current assessment is coming to answer the following questions:

- ▶ *To what extent are consumers aware of Armenian pharmaceuticals?*
- ▶ *What is the perception of consumers towards the Armenian pharmaceuticals?*
- ▶ *What behavior have consumers while purchasing pharmaceuticals of Armenian origin, which are the main factors affecting that behavior?*

Three different groups of respondents were separated for the implementation of the research –consumers, representatives of clinics, i.e. procurers at clinics and physicians, representatives of pharmacies, i.e. managers/owners and pharmacists. Thus, the assessment of Armenian pharmaceuticals' consumers has been conducted among 5 different targeted groups of respondents.

Awareness

Concerning the situation with the awareness of local pharmaceuticals, the consumers of Armenian products should be separated into two main groups, i.e. end-users (hereafter consumers) and professional community (representatives of clinics and pharmacies). The awareness levels are incomparably different for these two groups. **Consumers'** awareness level of Armenian pharmaceuticals is very low, due to the nature of those products: pharmaceuticals are not everyday consumption commodity. Consumers simply do not remember about them. They are somewhat informed about the main types of pharmaceuticals they have in their medicine-chests at their homes, which are mainly pharmaceuticals for the first-aid. Even the most known pharmaceuticals' (Valerian) rating does not exceed 5%. Their rare information about the pharmaceuticals consumers usually get from physicians and pharmacies, but this happens not so frequently for allowing them to accumulate information about pharmaceuticals. The picture even worse concerning the producers of pharmaceuticals. Almost all consumers were not able to recall even one local producer of pharmaceuticals without reminding. After some hints very few respondents recall some names: the most popular company is PharmaTech, which has the awareness rate of 7%.

We have the opposite situation in case of **representatives of clinics and pharmacies**. This community contacts with producers of pharmaceuticals on a daily basis and is very well aware of all producers and their nomenclature. Those groups, in their turn, have special features. In particular, physicians are completely aware of those pharmaceuticals that they use in their practice, narrow specialty. They may not have sufficient information about other pharmaceuticals. For example, surgeons may have very limited information about pharmaceuticals used by therapists. That is why; the most famous pharmaceuticals among physicians are infusion solutions, which have the rating of 85-86%.

Representatives of pharmacies are more informed about Armenian pharmaceuticals and producers. This is normal, since it is the peculiarity of their business. Representatives of pharmacies try to secure as wider nomenclature of pharmaceuticals as possible, and keep close interrelations with all producers of pharmaceuticals. The most famous pharmaceutical among representatives of pharmacies is the Amlodypin, which has the rating of 54%; the most famous organization is Liqvor, with rating of 98-100%.

Only the deeper analysis of respondents' awareness may identify the leading five local producers of pharmaceuticals. Here are those companies: Liqvor, PharmaTech, Arpimed, Esculap, and Yerevan CPF.

These 5 companies produce 75-80% of the total volume of pharmaceuticals, suggested in domestic market by 15-16 local companies¹. These leading companies have enhanced their activities, and increased their sales volumes not only in domestic market, but also in abroad.

Perception

Respondents have ambiguous attitude towards Armenian pharmaceuticals. Generally they prefer imported pharmaceuticals, but in some cases they prefer locally produced medicine. Meantime, the assessment of nomenclature shows, that the assortment of preferred imported pharmaceuticals is much wider. One of the main reasons for this is the small number of locally produced pharmaceuticals; currently Armenian producers produce only 500 out of 3,500 pharmaceuticals registered in Armenia, but there are other reasons, too. Another advantage of imported pharmaceuticals is their image. Foreign producers are famous international companies; such as KRKA, HEXAL, NOVARTIS, GLAXO, GEDEON RICHTER, etc. These producers have already achieved high culture of the organization of the business, and applied GMP standards. They produce high quality products and penetrate many domestic markets in the world. The image of these companies is especially high among the professional community, which in a long run resulted in concrete psychological situation and stereotypes.

According to the assessment outputs, there is not any representative of the professional community who unambiguously prefers pharmaceuticals of Armenian origin. Meantime, 31% of representatives of clinics prefer to use only imported pharmaceuticals.

General observation based upon respondents' assessment is that Armenian pharmaceuticals are considered to be less expensive and more available than the imported production. All respondents agree upon this issue. At the same time, they agree on the opinion that: the imported pharmaceuticals have higher quality (in terms of influence efficiency) and has better packaging as compared to the Armenian production. Considering the fact that respondents generally give more preference to imported than to Armenian pharmaceuticals, we can claim that the most important characteristics of pharmaceuticals are perceived to be the quality – and the product presentation (packaging). If the quality exists the high price becomes an issue of secondary importance. This is natural, since pharmaceuticals are special type of products and their use is directly related to people's health. And people are unlikely to save money at the cost of their health.

The information presented above does not mean that the future of Armenian pharmaceutical industry is not prospective. Moreover, there are specific tangible achievements already. Armenian infusion solutions, complexes of vitamins, eye drops, have strong positions in the market. This is the best proof of the possibility of substituting imports.

Respondents' Behavior

Pharmaceuticals for consumers are not for everyday consumption and represent a special group of products related to health of which final consumers have not much knowledge. However, since sooner or later each consumer has to buy pharmaceuticals; there is always a second individual, who usually gives advice on what should be purchased. The survey results show that such advisors can be spouses of consumers, or friends, physicians, and pharmacists. Consumers can ask for advice from more than one of these individuals. And independently from whose and which kind of advices are used by consumers to make a decision on purchasing pharmaceuticals, there is a group of people whose advice or opinion has exceptional importance and meaning for them. These people are physicians.

The survey results show that 86% of consumers rely exclusively on physicians' opinions or prescriptions when purchasing pharmaceuticals. Consumers mention that physicians' advice is more important than such factors as the price, packaging, pharmacy remoteness, service quality, etc. Consumers do not usually tend substitute the prescribed pharmaceutical with an analogue. This situation is much like the psychological

¹ Information is provided by local producers of pharmaceuticals

dependence. This wide reliance on physicians' opinions is not only because of low level of awareness among consumers. The latter perceive physicians as the only knowledgeable specialists who can solve their health problems, which makes consumers directly and psychologically dependent upon physicians. Physicians are aware of this phenomenon and get benefits from it.

44% of consumers very frequently face the situation when physicians clearly direct them, in purchasing pharmaceuticals. Physicians make them "*to purchase pharmaceuticals of this or that origin, produced by this or that company*". Moreover, sometimes physicians mention "*pharmaceuticals should be purchased for this or that pharmacy*". Such behavior of physicians can be explained by the fact of "cooperation" between physicians and producers/importers. The nature of the cooperation is the following – physicians are motivated by suppliers for promoting their pharmaceuticals. Physicians are not very "happy" to discuss this topic; they are officially explaining their position quite promptly. To their understanding they prescribe the best/most influential pharmaceutical.

Pharmacy managers are responsible for making purchases of pharmaceuticals at their entities. They make decisions about purchasing pharmaceuticals on their own or after consulting with pharmacists. Meantime, only pharmacists (without managers) are engaged in further selling of pharmaceuticals. The latter group has some conflict of interests with physicians. Consumers with physicians' prescriptions are looking for specific pharmaceuticals, and are rejecting any advice and direction from the side of pharmacists. Pharmacists claim that they even have not an opportunity of suggesting analogue pharmaceuticals.

On contrary, if the consumer visits the pharmacy without seeing a physician, the pharmacists gets "full control" and can direct the purchase. In these cases consumers usually ask for the advice of the pharmacists and get it. Suppliers of pharmaceuticals are very well aware of this phenomenon, too. They target also pharmacists and apply various motivation measures. Small producers of pharmaceuticals are especially active in this field; they "attack" pharmacies quite intensively.

Pharmacists are more open to discuss "motivation" issues than physicians. 21% of physicians clearly accepted, that they are motivated to cooperate with suppliers of pharmaceuticals. These relations exist and they are objective; producers must take into consideration all current realities of the market.

This was the general introduction of topics that have been addressed in this report. The further detailed assessment will provide closer and deeper understanding of the Armenian pharmaceuticals market. The information collected during the assessment has been presented in a way to make the reading very easy. Outputs are presented in analytical tables, charts, and pictures.

INTRODUCTION: BASE AND MOTIVATION FOR THE MARKET RESEARCH

The “Assessment of the Domestic Perception of Armenian Pharmaceutical Products: Market Research” (hereafter, the Research) has been implemented by order of Competitive Armenian Private Sector (hereafter **CAPS project**²) funded by US Agency for International Development (hereafter, **USAID**³). The Research has been implemented in April-July 2008 by AM Partners Consulting Company (hereafter, the **Research implementer**).

CAPS is a project for economic development, main peculiarity of which is the applied cluster approach. Targeted sectors of economy include various groups performing different functions, including, producers of goods and services, regulatory authorities of the sector, educational institutions preparing specialists for the sector, business development service providers, and etc. These groups are in constant communication and are affecting each other. Trying to solve the problems existing in these relations and contributing to the cluster “participants” strengthening, one may succeed in substantial development and progress of separate economic sectors. Applying cluster approach in support projects is a huge work, which requires input of significant resources (human, financial, time and etc.). Given the availability of these resources CAPS project targeted 3 sub-sectors of Armenian economy, one of which is the sub-sector of **pharmaceuticals' production**⁴.

The cluster a part of which is pharmaceutical production in Armenia is presented with “the following list of participants.”

- i. The *regulating authority* is the Ministry of Health of the RA, which has a wide range of rights and responsibilities of performing as a law initiator, supervision and regulation, developing public policy in healthcare environment. Other institutions that participate in state regulation of health care sector are: “State health care agency”, “Pharmaceutical and medical technologies’ expert center” CJSC.
- ii. Specialist for health care field are educated in more than ten state and private *educational institutions*, among which universities, institutes, collages and specialized collages may be mentioned.
- iii. There are about twenty *newspapers and magazines* published about health care in Armenia.
- iv. More than 20 *health care NGOs* are currently active, among those, unions and associations of medics and physicians, producers and importers, organizations implementing health care projects.
- v. In the field of pharmaceutical production there are *61 licensed importers of pharmaceutical*⁵, and about 10 *charitable organizations*.
- vi. In the field of pharmaceuticals’ production 17 companies have licenses for producing pharmaceuticals⁶.
- vii. In providing health care services and medical help there are state and private clinics; among them: *140 hospitals, 460 ambulances-policlinics, 145 dental clinics, and 6 private medical offices*⁷.
- viii. More than 20 companies are engaged in wholesale and distribution of pharmaceuticals and about 800 pharmacies are doing the retail.

This research **aims at revealing the respondents’ awareness and perception of Armenian pharmaceuticals’ production and peculiarities of consumer (buyer) behavior**. Thus, technical task of the research is of narrow and specific nature, it is not a research of the entire cluster-field of health care, but the research of a concrete group of the sub-sector participants. Therefore, the **objects** of this Research are groups (vii) and (viii) of the above listed cluster participants.

The Armenian market of pharmaceuticals’ is currently under predominance of imported production.

In 2006 the market size was equal to USD 89 million⁸, of which imported production accounted for 89.9%. The market of pharmaceuticals develops at a fast pace, sales are increasing at 16-19% per annum on average. Both importers and local producers benefit from growing market, through continuous increase of

² Competitive Armenian Private Sector

³ United States Agency for International Development

⁴ Other 2 sectors are; IT and tourism.

⁵ As of 01.10.2007. source: State Commission for the Protection of Economic Competition.

⁶ As of 01.10.2007. source: State Commission for the Protection of Economic Competition.

⁷ As of 01.01.2007. source: the Ministry of Healthcare of RA. Information-analytical state center of the Ministry of Healthcare of RA.

⁸ Source: interstate statistical committee of CIS countries.

sales. However, not only the market size grows but also requirements of standards and quality. Currently, the discussions about quality, appearance and price of pharmaceuticals become more and more frequent. A substantial part of pharmaceuticals imported to Armenia meets these requirements, since is presented by such world leading producers as KRKA (Slovenia), HEXAL (Germany), NOVARTIS (Switzerland), GEDEON RICHTER (Hungary), etc. These companies are already very well known among consumers both in their countries, and Armenia. As concerns the Armenian pharmaceuticals, it is a relatively new and developing field and has much to do in terms of increasing competitiveness. However, respondents gave ambiguous estimations to Armenian pharmaceutical production: they come up with both objective and subjective inferences. Thus, this Research reflects such questions as: what is the respondents' perception of Armenian pharmaceutical production? what is the level of respondents' awareness of Armenian pharmaceuticals?, what experience do respondents have with Armenian pharmaceuticals and what is the attitude formed as a result of such experience? Answers to these questions are first of all needed by:

1. **CAPS project**, which will be able to make its assistance efforts more targeted, directing them towards solution of urgent problems in Armenian pharmaceuticals' production sub-sector, and
2. **Local producers**, which can use these answers to make more addressed steps in their promotional activities.

At present, Armenian pharmaceuticals' production sub-sector is presented by 17 producers, 5 of which are obvious leaders given their operation scale and sales volumes. These companies are: Liqvor, PharmaTech, Arpimed, Esculap, Yerevan Chemical-Pharmaceutical Firm (Yerevan CPF). There are also dynamically developing companies, which seriously tend to take leading positions. Among those are: Vitamax-E, Arsemi, Noki companies. The report is about these and also smaller producers, which can conditionally be called beneficiaries of the research.

METHODOLOGICAL ASPECTS OF THE RESEARCH

MAIN DEFINITIONS

Some definitions used in the report need additional clarification. This refers to the terms “pharmaceutical products” and “consumers of pharmaceuticals”.

Since the stage of call for proposals it was clear that this is going to be a research of ***pharmaceutical products' end consumers***. During further work with CAPS project specialists, experts from health care sector, other terms, like “medicine”, “drugs”, “drug preparation”, were also used. Without going deep into differences in these terms, we should state that in all cases among all the products sold in pharmacies the conversation was only about ***pharmaceuticals*** and ***not about other medical products related to patient care, sanitary-hygienic products***. Hence, in context of this research.

- ▶ **terms “pharmaceutical products”, “medicine”, “medicament”, “drug preparation”, or “drug” all should be understood only as “PHARMACEUTICALS” – a product group with all its types – pills, tablets, drops, vessels, liquids for injection – i.e. strong mass, liquid or gas.**

Within the context of this Research respondents are all buyers of pharmaceutical products, independently from what purpose they are going to use them later for. In compliance with this logic the target groups presented in the table below are defined as objects of this Research.

Objects of the Research	Description
1. Armenian residents (citizens)	Individuals, who buy (or already bought) pharmaceuticals, independently from the direction of use: either for own use or for others. To somehow separate this group in the report the term <u>“consumers”</u> has been introduced.
▶ CLINICS	Clincs include hospitals, ambulances-policlinics, dental clinics, which buy pharmaceuticals to supply their main activity. Although final consumers of these pharmaceuticals are clients-patients of these entities, from the perspective of producer or seller of pharmaceutical products clinics are considered as consumers. Hence, clinics are among objects of this research. In order to present clinics’ “opinions” on the topic of this Research the following expert groups have been selected:
2. Procurers at clinics	In each clinic there are individuals responsible for management of procurements of pharmaceutical products required for the clinics functional needs. In small institutions these people and the managers/directors are the same persons, while in bigger hospitals or clinics purchasing manager or manager of the pharmacy operating under the institution’s structure is responsible for that. This category of people makes the 2nd group of survey participants, who are directly related to the turnover of pharmaceutical products. In the report the term <u>“Procurers at clinics”</u> was used for this group.
3. Physicians	In clinics the next group of people who directly deal with pharmaceutical products turnover are physicians. In this survey sample only the medics who prescribe pharmaceuticals and sign prescriptions have been included. This category makes the 3rd group of survey respondents. In the report the term <u>“physician”</u> has been used for this group.

- | | |
|----------------------|--|
| ▶ PHARMACIES | ☞ Pharmacies are the intermediary chain between suppliers of pharmaceuticals and final consumers (population). Like in the case of clinics, pharmacies also are considered as intermediaries from the perspective of pharmaceuticals' producers or sellers. Respondents representing pharmacies were the following groups: |
| 4. Pharmacy managers | ☞ Initially, it was assumed that pharmacy managers should have direct participation in purchasing of pharmaceuticals for their pharmacies. However, this is not always the case. In many cases the pharmacy manager/director is only the nominal manager, while purchasing is coordinated and supervised by one of the employees. In spite of this, most of the pharmacy managers are direct participants of the pharmaceuticals' turnover process. Hence, they formed the 4th group of respondents of our assessment. In the report the term " <u>pharmacy managers</u> " was used to describe this group. |
| 5. Pharmacists | ☞ In pharmaceuticals' turnover process pharmacists have some similarities with physicians. Besides being a simple seller of pharmaceuticals they sometimes also consult their clients and direct them. Hence, they make the 5th group of respondents in our survey. In the report this group is described by the term " <u>pharmacists</u> ". |

In this report all 5 groups are presented under the term of "**respondents**".

STUDY TOOLS: TECHNICAL APPROACH TO RESEARCH

Face-to-face interviews as the main tool of research

In order to conduct the survey *face-to-face interviewing* tool was adopted for the collection of data from respondents. For collecting similar and systematic information the interviews have been done based on *questionnaires* initially designed by the research implementer and then approved by CAPS project experts. For each group of respondents a separate questionnaire has been applied. These questionnaires included both general (common) questions and questions specific to each group. During the whole process of the research, especially at the stage of questionnaires' development, the Research implementer have intensively cooperated with CAPS Project specialists and with the management and members of the Union of Medicine Producers and Importers⁹:

The method of face-to-face interviewing is the most resource-intensive way of data collection. Despite a significant part of the respondents (particularly physicians and pharmacists) asked to send the questionnaires, so they can fill them in and send back, the research implementers remained loyal to the adopted methodology during the entire period of data collection and all questionnaires have been filled during "live" interviews. Face-to-face interviews allowed the Research implementer collecting additional information that was left out of the questionnaires, but has real applicable value. Significant part of that information is presented in the report.

In case of consumers, given the purpose of the assignment, the Research implementer interviewed not random people, but actual procurers of pharmaceuticals. The interviews were conducted inside of pharmacies or in surrounding areas. Respondents were chosen from customers going out of pharmacies

⁹ Special gratitude to CAPS Project specialists and experts: Frans Stobbelaar, Alan Saffery, Armine Yeghiazaryan, Sevak Hovhannisyanyan, Head of The Union of Medicine Producers and Importers Armen Aghayants, and to the management of Liqvor, PharmaTech, Yerevan CPF, Esculap, Arpimed, Vitamax-E, Medical-Horizon, Bizon-1

every 30-40 minutes. This allowed speaking with actual/real users of pharmaceutical products, at the same time ensuring *randomness* in sampling.

Research geography

Data required for this research has been collected in Yerevan and 3 marzes of Armenia – Lori, Kotayk, and Ararat. While including Yerevan in the sample geography is logical/natural, since Yerevan represents the largest market of pharmaceuticals in Armenia, other 3 marzes were chosen based on the following reasons:

- ▶ In these marzes proportion of rural vs. urban population are different,
- ▶ These marzes have different distances from Yerevan,
- ▶ Opportunities for information accessibility are different,
- ▶ Poverty levels are different.

Thus, the assessment covered geography, where about 60% of Armenian population resides. Such a geographical coverage allowed including consumers with different social status, rural and urban population, workers and service providers, scientists and students, young and old in the survey sample.

SAMPLING

The sampling of respondents is based on the principle of forming substantially representative sample from target groups (sample frame) of the Research. For the calculation of the sample size, the absolute figures of targeted groups have been adopted as bases. For instance, in case of consumers it was population number in the covered geographic area, in case of clinics and pharmacies it was the number of institutions or pharmacies in the covered geographic area¹⁰. From the respective general populations of each target group a sample was formed, with a size that would allow claiming that:

- ▶ **In case of consumers there is 95% confidence that the survey results correctly represent the general population of consumers; moreover, error in absolute value does not exceed 5%,**
- ▶ **In case of clinics and pharmacies there is 95% confidence that the survey results are true for all clinics and pharmacies, moreover, possible error in absolute value does not exceed 10%.**

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

Table 1 - The sample size and geographic distribution

Target groups of the assessment	Quantity	YEREVAN	LORI	KOTAYK	ARARAT
Consumers	384	219	57	54	54
Procurers at clinics	74	34	12	13	15
Physicians	74	34	12	13	15
Pharmacy managers	85	73	4	5	3
Pharmacists	85	73	4	5	3
TOTAL	702	433	89	90	90

¹⁰ See Technical Assignment for more details.

In marzes interviews with all groups of respondents were conducted in several residence areas. Consumers have been interviewed in Yerevan and 11 towns of 3 marzes. The distribution is presented in Figure 1. Interviews with the representatives of clinics and pharmacies have been organized in the same towns. To ensure the required number of interviews with clinics, interviews have been organized with some ambulances in several villages of Ararat marz.



Figure 1 - Geographic distribution of interviews with consumers

RESPONDENTS' PROFILE

CONSUMERS' PROFILE

Based on the survey results we can define an “average” profile of **most frequently met** consumer of pharmaceutical:

☞ *A married woman with university or secondary education, who lives in urban area, more frequently separately from her or husband's parents, has one or two kids, is unemployed mainly for social reasons.*

In order to get general profile for consumers, this report reflects their gender and age breakdown, level of education, social status, profession, family size and structure. Assessment results reveal the figures below:

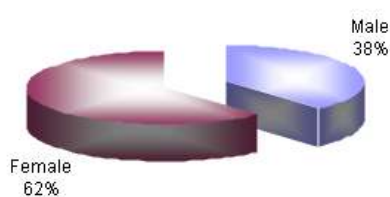


Figure 2 - Breakdown of consumers by gender

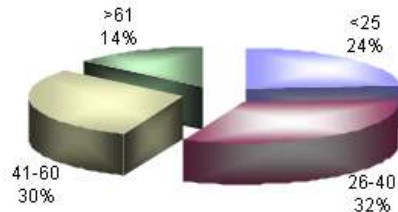


Figure 3 - Breakdown of surveyed consumers by age

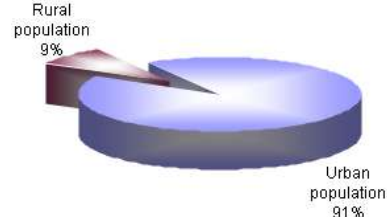


Figure 4 - Breakdown of consumers by area of residence

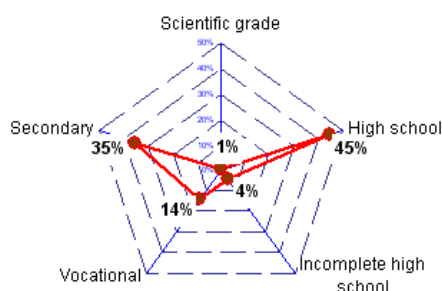


Figure 5 - Breakdown of consumers by level of education

Although interviews have been conducted only in cities, some respondents have declared themselves to be from rural areas. This group has been formed of people who came from villages to towns to buy pharmaceuticals they need at local pharmacies. In 12 towns we interviewed residents of 41 urban and rural communities. More detailed information on residence of consumers is provided in “Appendix – Breakdown of surveyed consumers by area of residence.”

53.4% of consumers (205 respondents) declared themselves to be from Yerevan; another 56.6% (179 respondents) - from marzes.

The differences in age of respondents from Yerevan and from marzes are very tiny. Notable differences have been registered only in educational level of consumers from Yerevan and marzes.

Table 2 - Distribution of consumers by their age: Yerevan vs. marzes

Age groups, years old	Place of consumers' residence	
	Yerevan	Marzes
< 25	29%	18%
26-40	30%	36%
41-60	26%	34%
> 61	16%	12%
Total	100%	100%

Table 3 - Distribution of consumers by their educational level: Yerevan vs. marzes

Educational levels	Place of consumers' residence	
	Yerevan	Marzes
Scientific grade	1%	0%
High school	57%	31%
Incomplete high school	4%	5%
Vocational	11%	18%
Secondary	27%	45%
Total	100%	100%

The largest group of surveyed consumers or 22% has no specific profession. The next professional groups by size are as follows:

- a. consumers with technical specialization (engineers, mathematicians, physicists, chemists, energy experts, architects, constructors, mechanics) - 17%;

- b. lawyers, economists, accountants, financiers, traders, sociologists - 16%;
- c. scientists, teachers, lecturers, professors - 13%;
- d. employees of services sector - 11%;
- e. physicians and other medical workers - 7%;
- f. laborers, craftsman, artisans - 7%;
- g. journalists, philologists, linguists - 5%;
- h. house-wives - 1%;
- i. police workers, military servants - 1%.

Women make up the majority in the following groups of consumers: respondents with no special profession, physicians and medical workers, teachers and lecturers, journalists, philologists, and linguists.

Survey results for consumers show that only 44% of them are employed, of which the largest group or 54% are people employed in various private companies, the rest are engaged as: employees of state enterprises (28%), civil servants (8%), sole proprietors (7%), employees of NGOs (4%). Unemployed consumers (56% of total) can be divided into 2 groups:

- a) *consumers with so-called "objective reasons*, among which students (21% of unemployed or 11% of total) and pensioners (22% of unemployed or 12% of total);
- b) *unemployed*, who do not work for family and other social reasons or simply cannot find job (this group accounts for 56% of unemployed or 31% of total).

In terms of consumption of pharmaceuticals information on family structure of consumers is very important. According to some expert estimations, those families with small-age (<10 years) kids and elder citizens, buy medicine more often. The assessment results indicate that families with 3-4 or 5-6 members are predominant. These are either young families that have 1-2 kids and live separately from their parents, or the same type of young families that live with parents (see Table 4). Breakdown of family size for consumers by children (<18) and elders (>60) is presented below:

Table 4 - Breakdown of consumers by number of their family members (residing under the same roof)

Number of family members	Share in total number of consumers
1-2	15%
3-4	40%
5-6	39%
7-8	4%
9	1%
13	0.3% ¹¹
16	0.3%
Total	100%

Table 5 - Breakdown of family size for consumers by number of children

Number of children in family	Share in total number of consumers
0	43%
1	33%
2	18%
3	4%
4	1%
7	0.3%
8	0.3%
Total	100%

Table 6 - Breakdown of consumers' family size by number of old members

Number of senior citizens in family	Share in total number of consumers
0	61%
1	21%
2	18%
3	0.3%
Total	100%

¹¹ 1 case in 384 families.

THE PROFILE OF CLINICS AND THEIR REPRESENTATIVES

General description of assessed clinics

As mentioned above, assessed clinics include hospitals, ambulances-policlinics, and dental clinics, among which there are both state and private clinics. The breakdown of clinics by type of ownership is presented in the table below:

Table 7 - Breakdown of surveyed clinics by type of ownership

Clinics			
Number: 74		Share: 100%	
State		Private	
Number: 41	Share: 55%	Number: 33	Share: 45%

Such distribution is not a coincidence. Health care sector is one of the rare sectors in Armenia with government predominance. Among 140 hospitals operating in Armenia 106 are state owned, of 460 ambulance-policlinics 386 are state owned. The bigger share of private clinics in the sample can be explained by the geography of the assessment: the major part of the survey was conducted in Yerevan, where the number of private clinics is notably more than in regions. Therefore, procuring pharmaceuticals through the system of government purchases is very popular. However, volumes of direct procurements of pharmaceuticals are the biggest (see Figure 6).

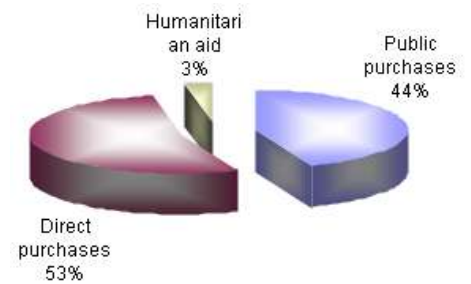


Figure 6 - Methods of purchasing pharmaceuticals by clinics (on average)

The assessment results give answer to the question of which **procuring methods** are popular among various types of clinics. Here is the picture:

1. Purchase of pharmaceutical products by clinics through government purchases

- 43% of surveyed clinics . . . ☞ 76-100% is purchased through system of government purchases
- 4% of surveyed clinics. . . ☞ 51-75% is purchased through system of government purchases
- 2% of surveyed clinics. . . ☞ 26-50% is purchased through system of government purchases
- 1% of surveyed clinics. . . ☞ 1-25% is purchased through system of government purchases
- 50% of surveyed clinics¹². . . ☞ Has no purchases through system of government purchases

2. Purchase of pharmaceutical products by clinics through direct purchase

- 51% of surveyed clinics. . . ☞ 76-100% is purchased through direct purchases
- 2% of surveyed clinics. . . ☞ 51-75% is purchased through direct purchases
- 2% of surveyed clinics. . . ☞ 26-50% is purchased through direct purchases
- 7% of surveyed clinics. . . ☞ 1-25% is purchased through direct purchases
- 38% of surveyed clinics. . . ☞ Have no purchases through direct purchase.

3. Clinics receive pharmaceutical products as humanitarian aid

- 3% of surveyed clinics. . . ☞ 26-50% is received as humanitarian aid
- 39% of surveyed clinics. . . ☞ 1-25% is received as humanitarian aid

¹² All private clinics are included in this figure (45%)

58% of surveyed clinics. . . ☞ Receive no pharmaceuticals as humanitarian aid.

As concerns the **sources** of purchasing pharmaceuticals by clinics, the picture here is in compliance with general situation in the market: the imported pharmaceuticals are at “leading positions” (see Figure 7).

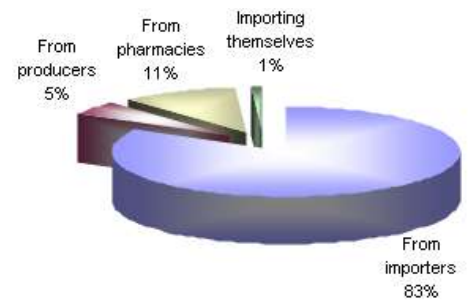


Figure 7 - Sources of purchasing pharmaceuticals by clinics (on average)

To avoid confusion, it is worth mentioning that here we talk about not the product origin, but about the agents from whom clinics buy these products. For instance, in the table below, when 7% of clinics mentioned that do not procure from importers, it does not mean they do not use imported pharmaceuticals at all. Below we present data on **which sources of purchase** are predominant for different shares of clinics.

1. Clinics purchase pharmaceuticals from importers¹³

- 73% of surveyed clinics. . . ☞ Purchase 76-100% of pharmaceuticals from importers
- 12% of surveyed clinics. . . ☞ Purchase 51-75% of pharmaceuticals from importers
- 7% of surveyed clinics. . . ☞ Purchase 26-50% of pharmaceuticals from importers
- 1% of surveyed clinics. . . ☞ Purchase 1-25% of pharmaceuticals from importers
- 7% of surveyed clinics. . . ☞ Do not buy from importers

2. Clinics purchase pharmaceuticals from producers

- 11% of surveyed clinics. . . ☞ Purchase 26-50% of pharmaceuticals from producers
- 7% of surveyed clinics. . . ☞ Purchase 1-25% of pharmaceuticals from producers
- 82% of surveyed clinics. . . ☞ Do not buy from producers

3. Clinics import pharmaceuticals they need

- 1% of surveyed clinics. . . ☞ Import 51-75% of pharmaceuticals by themselves
- 99% of surveyed clinics. . . ☞ Do not import pharmaceuticals

4. Clinics purchase pharmaceuticals from pharmacies

- 8% of surveyed clinics. . . ☞ Purchase 76-100% of pharmaceuticals from pharmacies
- 4% of surveyed clinics. . . ☞ Purchase 26-50% of pharmaceuticals from pharmacies
- 3% of surveyed clinics. . . ☞ Purchase 1-25% of pharmaceuticals from pharmacies
- 85% of surveyed clinics. . . ☞ Do not buy from pharmacies

¹³ Including companies engaged in pharmaceuticals wholesale and distribution in Armenian market

Profile of Procurers of pharmaceuticals at clinics

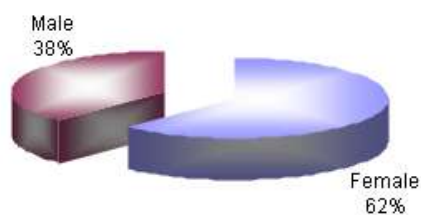


Figure 8 - Procurers of pharmaceuticals at clinics, by gender

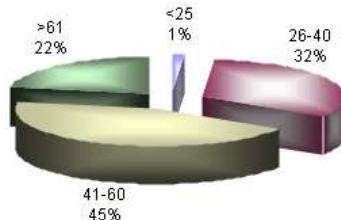


Figure 9 - Procurers of pharmaceuticals at clinics, by age

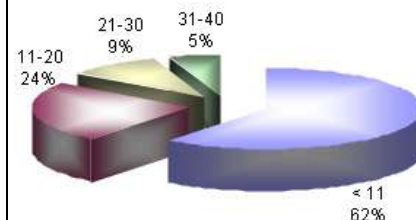


Figure 10 - Procurers of pharmaceuticals at clinics, by tenure of their employment

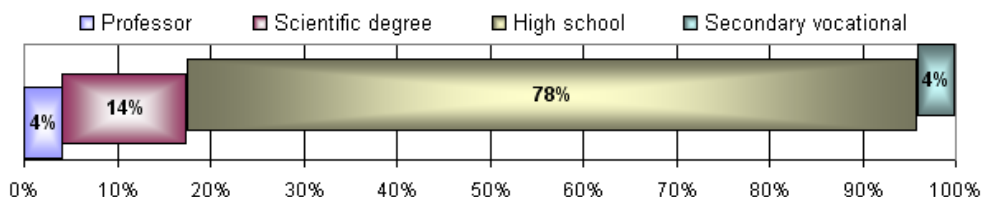


Figure 11 - Procurers of pharmaceuticals at clinics, by level of education

Physicians' Profile

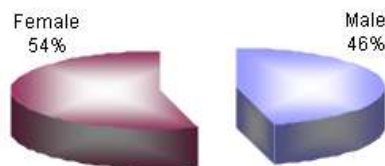


Figure 12 - Physicians, by gender

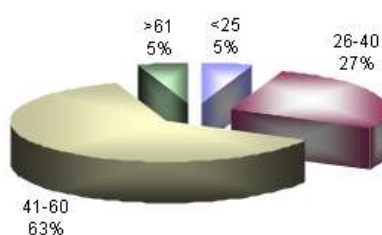


Figure 13 - Physicians, by age

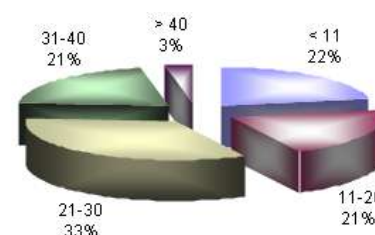


Figure 14 - Physicians, by tenure of their employment

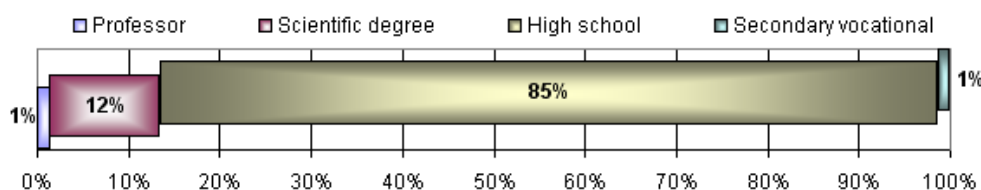


Figure 15 - Respondent physicians, by level of education

DESCRIPTION OF PHARMACIES

General description of assessed pharmacies

85 pharmacies were included in the assessment. 9.4% of the pharmacies are a part of *pharmacy networks*¹⁴. All assessed pharmacies are private commercial entities and operate under market rules and conditions; there is no state sector or system of government purchases here.

¹⁴ From each network of pharmacies interviews were done in only one pharmacy

Breakdown of pharmacies by **sources of pharmaceuticals purchased** by them is presented below:

1. **Pharmacies purchase pharmaceuticals from importers**¹⁵

89% of surveyed pharmacies . . .	☞ Purchase 76-100% of pharmaceuticals from importers
5% of surveyed pharmacies . . .	☞ Purchase 51-75% of pharmaceuticals from importers
4% of surveyed pharmacies . . .	☞ Purchase 26-50% of pharmaceuticals from importers
2% of surveyed pharmacies . . .	☞ Do not buy from importers

2. **Pharmacies purchase pharmaceuticals from producers**

5% of surveyed pharmacies . . .	☞ Purchase 26-50% of pharmaceuticals from producers
54% of surveyed pharmacies . . .	☞ Purchase 1-25% of pharmaceuticals from producers
41% of surveyed pharmacies . . .	☞ Do not buy from producers

3. **Pharmacies import pharmaceuticals they need**

1% of surveyed pharmacies . . .	☞ Import 76-100% by themselves
2% of surveyed pharmacies . . .	☞ Import 26-50% by themselves
8% of surveyed pharmacies . . .	☞ Import 1-25% by themselves
89% of surveyed pharmacies . . .	☞ Do not import pharmaceuticals

Profile of pharmacy managers



Figure 16 - Pharmacy managers, by gender

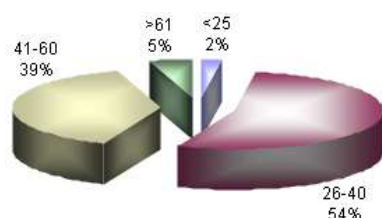


Figure 17 - Pharmacy managers, by age

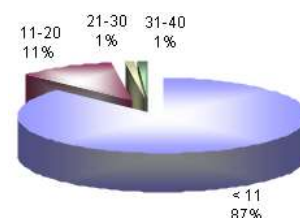


Figure 18 - Pharmacy managers, by tenure of their employment

Vast majority of pharmacy managers (98%) has higher educational and scientific degrees. Although pharmacy business is a little specific in nature, there are individuals among pharmacy managers whose education and previous experience had nothing to do with pharmaceuticals. For instance, in these groups of respondents there was 1 wine-maker, 1 environmentalist, 4 engineers - mechanics, 1 mathematician, and 1 physicist. In majority of such cases main tasks of pharmacy management, and also the procurement of pharmaceuticals is actually implemented by one of the employees, who can be considered the actual (although non-official) manager.

¹⁵ Including companies engaged in pharmaceuticals wholesale and distribution in Armenian market

Profile of pharmacists

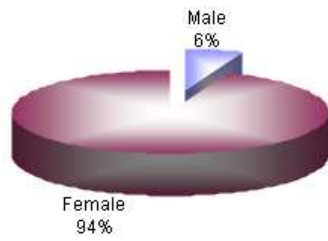


Figure 19 - Pharmacists, by gender

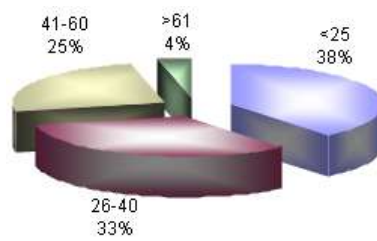


Figure 20 - Pharmacists, by age

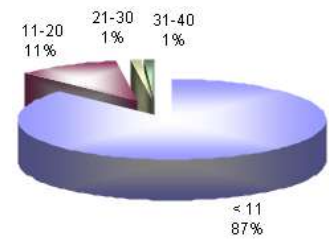


Figure 21 - Pharmacists, by tenure of their employment

58% of pharmacists have higher educational and 42% professional collage/technical school degrees. The latter graduated from medical collages. By specialization 48% of pharmacies' employees are pharmaceutists, and 52% are pharmaceutical chemists.

THE LEVEL OF RESPONDENTS' AWARENESS

RESPONDENTS' AWARENESS OF ARMENIAN PHARMACEUTICAL PRODUCTION

Armenian pharmaceutical products familiar to respondents

Before analyzing respondents' awareness about the local production of pharmaceuticals an important fact should be taken into consideration. In spite of the fact that all 5 target groups of the assessment are procurers of pharmaceuticals in this or the other way, they are very different in all aspects, which makes the approach of analyzing respondents within one common group meaningless. This refers to significant differences among –end consumers and other target groups of the assessment. These differences are based on objective reasons:

- ▶ For wide groups of population pharmaceuticals are not for daily consumption. These products are mostly required in case of illness and the demand for them disappears after successful treatment. Depending on the type of the pharmaceutical, frequency of its use is different. There are pharmaceuticals that are used quite frequently and their names are memorized forever (like aspirin, analgin, ascophen, etc.). There are types of pharmaceuticals that can be used once or twice in whole life or may be never used. Names of these types of pharmaceuticals can be forgotten by people or even not known at all. Besides, very often people do not make their decision of taking this or that pharmaceutical by themselves; this is done by health care professionals, i.e. by physicians' prescription or by their advice. In this case consumers buy and use the pharmaceuticals from a pharmacies and may not even know the name of it. Given this, consumers can be conditionally called “unaware” or “relatively unaware” consumer group in comparison with other target groups of the assessment¹⁶.
- ▶ As opposed to consumers, the representatives of clinics and pharmacies are professionals of health care sector and their knowledge of pharmaceuticals is not just a matter of awareness, but a question of being knowledgeable and professional. Hence, it is natural that awareness of this group with awareness of consumers is incomparable. In this context the representatives of clinics and pharmacies can be considered relatively “knowledgeable” or “relatively aware” respondent groups.

Given the above described circumstances, the Research implementer analyzed awareness and relevant questions by separate target groups, which allowed revealing situation and profiles of each group, role of each of them in pharmaceuticals' turnover. Awareness about the Armenian pharmaceuticals has been assessed among consumers, physicians, and pharmacists.

Types of Armenian pharmaceuticals that consumers are aware of

Assessment results show that 23% of consumers could name at least one Armenian pharmaceutical. So-called “aware” consumers named 173 types of products (an “aware” consumer on average knows 2 pharmaceuticals of Armenian production). Armenian pharmaceuticals named by consumers that have *Top 10 popularity* are represented in the table below:

Table 8 - Top 10 popular pharmaceuticals of Armenian production named by consumers

Pharmaceuticals	Share of consumers aware of the type of product		Share of consumers aware of imported analogues of products familiar to them***	Share of consumers aware of imported analogues availability but giving preference to Armenian products****
	Of total number of consumers*	Of number of consumers aware at least of one product**		
	A	B	C	D
Valerian	4.7%	20.7%	67%	92%
Ascophen	2.9%	12.6%	64%	71%
Narine	2.6%	11.5%	20%	100%

¹⁶ The statement does not refer to chronic patients. Respondents have not been asked about the nature of their illness.

Iodine	2.3%	10.3%	44%	100%
Haw	2.1%	9.2%	38%	100%
Mother wort	1.8%	8.0%	43%	100%
Albucide	1.6%	6.9%	50%	100%
Analgin	1.6%	6.9%	100%	67%
Samomile	1.6%	6.9%	50%	100%
Aspirin	1.0%	4.6%	100%	100%

* - Computed based upon total number of surveyed consumers (384)

** - Computed based upon the number of consumers, that are aware of at least one Armenian pharmaceutical (23% of consumers)

*** - Computed based upon the number of consumers, that are aware of at least one Armenian pharmaceutical (Column B).

**** - Computed based upon the number of consumers, who are aware (or think that are aware, may be even mistakenly), that in Armenian market of pharmaceuticals there are imported analogues they are familiar with (Column C).

The presented data show that among consumers most popularity is taken by those types of pharmaceuticals, which are mostly available in any house. These are mainly pharmaceuticals 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.

In order to assess honesty and objectivity of consumers during the interviews, they were asked twice about their preferences (imported vs. Armenian pharmaceutical products). In Table 8 we can notice that in the beginning of the interviews among popular top 10 pharmaceuticals consumers gave preference to Armenian products. However, during the interviews of consumers, the different outputs have been received. This question has been also reflected in the section titled "Respondents' preferences towards Armenian pharmaceuticals".

Armenian pharmaceuticals the physicians are aware of the most

Vast majority of surveyed physicians are more or less aware of Armenian pharmaceuticals, and each physician knows at least 4.6 names of pharmaceuticals. Only 4% of physicians are unaware of Armenian pharmaceutical. They are mainly medics who work at dental clinics. It is worth mentioning that physicians named not only separate types of pharmaceuticals, but also pharmaceutical groups that these products belong to.

Table 9 - Top 10 popular pharmaceuticals and/or product groups of Armenian production named by physicians

Pharmaceuticals	Share of physicians aware of a special product type		Share of physicians aware of imported analogues of products familiar to them***	Share of physicians aware of imported analogues availability but giving preference to Armenian products ****
	Of total number of physicians*	Of total number of physicians who know at least one product**		
	A	B		
Infusion solutions	35.1%	36.6%	96.2%	72.0%
Analgin	14.9%	15.5%	100.0%	27.3%
Lidocaine	14.9%	15.5%	100.0%	36.4%
Antibiotics	12.2%	12.7%	100.0%	11.1%
Ringer	12.2%	12.7%	77.8%	57.1%
Vitamins	10.8%	11.3%	100.0%	12.5%
Narine	9.5%	9.9%	100.0%	57.1%
Metronidazole	8.1%	8.5%	83.3%	0.0%

Sodium chloride 0.9%	8.1%	8.5%	100.0%	50.0%
Ceftriaxone	6.8%	7.0%	100.0%	40.0%

- * - Computed based upon total number of surveyed physicians (74)
- ** - Computed based upon the number of physicians that are aware of at least one Armenian pharmaceutical (96% of physicians)
- *** - Computed based upon the number of physicians that are aware of at least one Armenian pharmaceutical (Column B)
- **** - Computed based upon the number of physicians who are aware (or think that are aware, may be even mistakenly), that in Armenian market of pharmaceuticals there are imported analogues they are familiar with (Column C).

To assess physicians' awareness of Armenian pharmaceuticals more precisely, they were asked one additional question as opposed to consumers. The question was: *do they know which company produces the Armenian pharmaceuticals familiar to them?* 29% of physicians had difficulties with answering this question. In other cases they know the producers and name the following:

- 24.2% of pharmaceuticals familiar to physicians is produced by Liqvor
- 19.3% of pharmaceuticals familiar to physicians is produced by Arpimed
- 9.8% of pharmaceuticals familiar to physicians is produced by Yerevan chemical-pharmaceutical firm
- 4.9% of pharmaceuticals familiar to physicians is produced by PharmaTech
- 4.3% of pharmaceuticals familiar to physicians is produced by Vitamax-E
- 2.8% of pharmaceuticals familiar to physicians is produced by Esculap
- 1.5% of pharmaceuticals familiar to physicians is produced by Noki

Pharmaceuticals of other companies (Antaram, Arsemi, Eda-tech, and Ghazaros) were mentioned rarely.

Based on the answers of physicians indicate that all the pharmaceuticals they mentioned have their imported analogues in Armenian market. Mainly based on their experience of comparing imported analogues with local products, physicians claimed their preferences. Thus, among named pharmaceuticals 41% of physicians (who are aware of imported analogues) give unequivocal preference to Armenian products. Others either prefer imported (23%) products, or they are indifferent (36%). Preferences of physicians and their reasoning are described in more detail in the section of "Respondents' preferences towards Armenian pharmaceuticals".

Armenian pharmaceuticals the pharmacists are aware of the most

There are obvious differences in levels of awareness of physicians and pharmacists about Armenian pharmaceuticals, which can be due to the fact that physicians during their activities are limited with their narrow specialization (therapist, surgery specialists, or gynecologist). They are very well aware of pharmaceuticals related to their narrow specialization, but may also be unaware of other pharmaceuticals used out of their field. While pharmacists/pharmacy workers, independently from pharmaceuticals' use, know almost by heart names and other features (including names of producer) of all pharmaceuticals that are sold in their pharmacies. There can be hundreds of these pharmaceuticals, hence, pharmacy workers should be considered not only as people aware of medicine and pharmaceuticals, but also as sales persons, who must know all types of the products they sell.

Pharmacists named more than 800 pharmaceuticals of Armenian production. It is difficult to compute what is the average number of Armenian pharmaceuticals each pharmacist is aware of. However, this number is certainly more than 10, since after naming the 10th product pharmacists still were able to continue the list:

Table 10 - Top 10 popular pharmaceuticals and/or product groups of Armenian production named by pharmacists

Pharmaceuticals	Share of pharmacists aware of certain pharmaceuticals *	Share of pharmacists aware of availability of imported analogues of products familiar to them**	Share of pharmacists, aware of imported analogues availability but giving preference to Armenian products ***
	A	B	C
Amlodipine	54%	98%	16%
Enalapril H	42%	97%	14%
Erythromycine	33%	68%	16%
Taufone	33%	89%	28%
Naphthyzine	25%	90%	26%
Escard	18%	33%	60%
Ringer	16%	57%	50%
Hexiloc	15%	62%	50%
Lisinopril	15%	100%	0%
Pasta Teimurovi	14%	25%	67%

* - Computed based upon total number of surveyed pharmacists (85)

** - Computed based upon the number of pharmacists who are aware of at least one Armenian pharmaceutical (Column A)

*** - Computed based upon the number of pharmacists who are aware (or think that are aware, may be even mistakenly), that in Armenian market of pharmaceuticals there are imported analogues they are familiar with (Column B).

In order to assess awareness of pharmacists more precisely, they were asked the following question: *do they know who is/are the producer/s of Armenian pharmaceuticals familiar to them?* As opposed to physicians pharmacists have always had an answer to this question, too. Pharmacists do know producers of almost 97% of pharmaceuticals which they named. As concerns the producers of other pharmaceuticals pharmacists are aware of them and give the following names:

39.0% of pharmaceuticals familiar to pharmacists is produced by	☞ Arpimed
18.8% of pharmaceuticals familiar to pharmacists is produced by	☞ Esculap
15.8% of pharmaceuticals familiar to pharmacists is produced by	☞ Liqvor
7.5% of pharmaceuticals familiar to pharmacists is produced by	☞ Arsemi
4.5% of pharmaceuticals familiar to pharmacists is produced by	☞ Yerevan chemical-pharmaceutical firm
3.9% of pharmaceuticals familiar to pharmacists is produced by	☞ PharmaTech
1.6% of pharmaceuticals familiar to pharmacists is produced by	☞ Eda-tech

Besides the pharmaceuticals that have been mentioned, pharmacists mentioned also several types of pharmaceuticals that are produced by small producers, among them – Insi, Nectar-bonus, Noki, Medical Horizon, Hagenas, OdZet vars, Finea.

Sources of information on Armenian pharmaceutical production among respondents

Respondents who are more or less aware of Armenian pharmaceuticals were able to clearly answer questions about sources of information. This question was difficult especially for consumers, since majority was not able to give any answer. Other, more “knowledgeable” respondent groups more or less follow the developments in pharmaceutical industry and get information sometimes even from several sources.

Table 11 - 5 main sources of information on Armenian pharmaceutical products by respondent groups

Sources of information on Armenian pharmaceuticals	Consumers	Procurers of pharmaceuticals at clinics	Physicians	Pharmacy managers	Pharmacists
TV program related to health care	3%				
Ads on TV	1%				
Posters, advertising papers, brochures			20%		
Mass media (newspapers, magazines), not professional					
Professional media: newspapers and magazines		18%		39%	52%
Physicians	7%		39%		
Pharmacies	11%				
Colleagues, friends, relatives	6%	36%		60%	51%
Direct producers		57%	50%	81%	73%
Presentations organized by producers		32%	20%	55%	51%
Basic education		15%	14%	40%	60%

* - shares are computed based upon the total number of assessed respondents

Assessment results witness that except for consumers, main information “suppliers” for all other respondent groups are direct producers. This is a very interesting fact. Main large producers state that they organize their product realization through the distributors of pharmaceuticals (bases). In spite of that, producers still keep direct relation and communication with their product buyers, thereby, ensuring product realization in the market.

RESPONDENTS AWARENESS OF ARMENIAN PRODUCERS OF PHARMACEUTICALS

Armenian producers known to respondents

To collect information on respondents' awareness of Armenian producers of pharmaceuticals two approaches have been applied. From the outset, we tried to find out how many and what producers are respondents aware of without hinting the respondents to answers. After that, the same question was asked by naming producers, with the purpose of “refreshing” respondents' memories. Going ahead, we should mention that the analysis of awareness of Armenian pharmaceutical is divided into 2 parts: by consumers and other respondent groups, since the level of awareness is very different for these groups.

Armenian producers of pharmaceuticals known to consumers

According to the assessment results the awareness of consumer of local producers is at very low level. Out of all 384 consumers only 11 could give at least one name of a producer without being hinted, moreover, most of them are occupied in health care sector; therefore, they know the producers' names. In general 9 companies were named, 2 of which are not producer but importers. Consumers mentioned more often (if it can be called often) such companies as Esculap, Arpimed, and Yerevan chemical-pharmaceutical firm: What does this, mean? It would be appropriate to state that **consumers are extremely unaware**.

After our interviewers started to list names of Armenian producers, some of the consumers recognized or recalled some of the producers. However, it did not make serious changes in the picture of awareness. Not surprisingly, having no clear information about producers, consumers are not aware of pharmaceuticals produced by them. Even if consumers know about some producer, they do not know what exactly the company produces. Data presented below witness this statement.

Table 12 - Armenian producers and their production known to consumers

Armenian producers known to consumers	Share of consumers aware of the producer		Share of consumers that are aware of the producer and know what pharmaceuticals are produced by them	Pharmaceuticals mentioned by consumers, which are produced by producers familiar to them		
	Unaided recall	Aided recall				
PharmaTech	0.3%	6.8%	11.5%	- Iodine - Citramone	- Ascophen	☞ Totally wrong information
Vitamax-E	0.0%	6.5%	27.5%	- Narine - Vitamines - Salts	- Duovit - Eye drops	☞ Only Narine is correct
Arpimed	0.8%	6.3%	25.0%	- Betadinok - Enalapril H - Expectorant	- Sodium chloride - Triflazine	☞ Partly correct information
Yerevan CPF	0.5%	4.9%	26.3%	- Vitamines - Ditoline - Ichthiol ointment	- Solutions - Aloe	☞ Mainly correct information
Esculap	1.0%	3.9%	40.0%	- Castor oil - Medicinal herbs - Iodine - Valerian	- Narine - Narine ointment - Mother wort - Haw	☞ Partly correct information
Hagenas	0.3%	1.6%	16.7%	- Apricot oil	- Pumpkin oil	☞ Correct information
Antaram	0.3%	1.0%	100.0%	- Medicinal herbs	-	☞ Correct information
Liqvor	0.3%	1.0%	50.0%	- Betadinok	- Iodine	☞ Totally wrong information
Ghazaros	0.0%	0.5%	50.0%	- Medicinal herbs	-	☞ Correct information
Medical Horizon	0.0%	0.3%	100.0%	- Suppository	-	☞ Correct information
Arsemi	0.0%	0.3%	0.0%	- ?	-	☞

Summing up data presented in Table 12 the following needs are to be taken into consideration:

- ▶ The difference between the results of aided recall and unaided recall is very substantial.
- ▶ Relatively big “fame” of Vitamax-E is due to the fact that consumers identify (more precisely, mix) it with a poly-vitamin with the same name. This statement is proved by the fact that none of the consumers mentioned Vitamax-E without hinting, while after reminding a big share of respondents recalled that name. On the other hand, it is worth mentioning that consumers are very well aware of “Narine”, the leading product of Vitamax-E, which itself, is very positive.
- ▶ The fame of Yerevan CPF is based to some extent on older generation’s memories. In lots of cases consumers know this company as “Yerevan-Pharm”.
- ▶ In case of Esculap consumers are more familiar with the “Esculap”, being the name of a chain of pharmacies, rather than a producer under that name. The availability of the company’s pharmacy network might have been brought some fame to the company name.

To sum up this section, it is worth mentioning that for some pharmaceutical producers, non-awareness of consumers not a big problem. These are the producers whose production is not for “mass consumption” and is mostly purchased by clinics. For these producers it is more important to be recognized by representatives of clinics, particularly by Procurers of pharmaceuticals at clinics and physicians.

Armenian producers of pharmaceuticals recognized by representatives of clinics

Awareness of Armenian pharmaceutical producers among the surveyed representatives of clinics is substantially different as compared to consumers. Indeed, the main reason is that these people, particularly Procurers at clinics, have direct and regular relations with suppliers.

Procurers of pharmaceuticals at clinics as required by their job are in close communication with suppliers of pharmaceuticals (in this case - producers), independently from the way of purchased: directly from the producer or through intermediary organization (distributor or base). Therefore, Procurers of pharmaceuticals at clinics are one of the groups who are the most aware of Armenian producers. Comparing the level of awareness to the awareness of consumers is almost meaningless, since the levels are 243 times different! While out of every 100 consumers 0.3 conditional persons know at least one Armenian pharmaceutical producer (without reminding) the same indicator for the Procurers of pharmaceuticals at clinics is 73. Meantime again there is a very important issue here to be addressed necessarily. Only about half of the Procurers of pharmaceuticals were aware of the most known local producer of pharmaceutical prior to hinting. This is a very low figure, which comes to suggest that the promotional campaigns of local producers are not effective and efficient. The level of Procurers' awareness is presented below:

Table 13 – Procurers awareness of Armenian pharmaceutical producers and their product line (pharmaceuticals and product groups)

Armenian producers familiar to Procurers of pharmaceuticals	Share of Procurers of pharmaceuticals aware of the producer		Share of Procurers of pharmaceuticals that are aware of the producer and know what pharmaceuticals are produced by them	Types of pharmaceuticals mentioned by Procurers of pharmaceuticals, produced by the companies they are aware of (first 5 mentionings)
	Unaided recall	Aided recall		
Liqvor	55.4%	89.2%	90.9%	- Infusion solutions - Eye drops - Lidocaine - Ringer - Dextrose
Arpimed	43.2%	78.4%	70.7%	- Psychotropic agents - Antibiotics - Amlodipine - Diazepam - Lisinopril
PharmaTech	28.4%	81.1%	53.3%	- Infusion solutions - Rheopolyglucinum - Sodium chloride - Dextrose - Ringer
Esculap	17.6%	71.6%	41.5%	- Iodine - Ointments - Valerian - Antibiotics - Perhydrole
Yerevan CPF	13.5%	52.7%	69.2%	- Analgin - Dimedrol - Vitamines - Novocaine - Ointments
Arsemi	5.4%	29.7%	63.6%	- Medical alcohol - Iodine* - Amlodipine* - Betamethazone * - Galazoline
Noki	4.1%	24.3%	72.2%	- Gangleron - Amoxicilline - Aspirin - Ditolin - Vitamines*
Vitamax-E	4.1%	64.9%	75.0%	- Narine - Narimax - Vitamines* - Narine caps. - Apricotabs*
Hagenas	1.4%	17.6%	53.8%	- Apricotabs - Seat Buckthorn oil - Volatile oils - Samomile

				- Medical alcohol
Ghazaros	1.4%	20.3%	93.3%	- Medical herbs - Biological preparation* - Samomile - Cortex Quercus - Medical gargle*
Medical Horizon ¹⁷	1.4%	6.8%	0.0%	- ? -
Antaram	0.0%	24.3%	94.4%	- Medical herbs - Samomile - Tea - Cortex Quercus
Bizon-1	0.0%	12.2%	66.7%	- Seat Buckthorn oil - Aspirin* - Medical herbs* - Rosehip oil

* - These pharmaceuticals are not produced by the mentioned producers

To assess the level of its company awareness any Armenian producer should treat the data presented in this table as the most important, since these data show the level of awareness among the largest, “most knowledgeable/aware” and the most decisive buyer group. There is no doubt that among clinics the most famous company is Liqvor. 9 out of 10 of Procurers of pharmaceuticals are aware of this company and its production (or the main products). 6 out of more than 10 Armenian producers – Liqvor, Arpimed, PharmaTech, Esculap, Vitamax-E and Yerevan chemical-pharmaceutical firm, are substantially distinguished for being more popular than other producers. Relatively less famous 2 producers (Ghazaros, Antaram) are worth mentioning because those who know about these companies are very well aware of their production, too. This fact is much appraised.

According to data presented in Table 13, Procurers of pharmaceuticals at clinics are very well aware of what each producer produces. They had small number of mistakes only related to some small producers.

But is this level of awareness high or low? We can't state that the level of awareness of the large producers is high enough. Based on presented figures it could be judged that the awareness level about the bigger producers is not quite high. It is also a fact that procurers of pharmaceuticals at clinics expressed a wish that communication with producers was more intensive. They formed this opinion due to comparing producers and importers' efforts in this field. Procurers of pharmaceuticals in marzes are more willing to improve communication with producers. Obviously, producers put their main marketing efforts on Yerevan market (most, accessible, and least expensive in terms of marketing expenses and the largest market in Armenia).

Among buyers of Armenian pharmaceuticals, physicians (as representatives of clinics) comprise one of the most knowledgeable/aware groups. Among physicians the level of awareness is just a little less than that of Procurers of pharmaceuticals at clinics (see Table 14):

Table 14 - Armenian producers and their products familiar to physicians

Armenian producers familiar to physicians	Share of physicians aware of the producer		Share of physicians that are aware of the producer and know what pharmaceuticals are produced by them	Types of pharmaceuticals mentioned by physicians, produced by the companies they are aware of (first 5 mentionings)
	Unaided recall	Aided recall		
Liqvor	55.4%	86.5%	84.4%	- Infusion solutions - Ringer - Eye drops - Lidocaine - Sodium chloride
Arpimed	45.9%	78.4%	60.3%	- Antibiotics - Captopril - Fluconazole - Hexiloc* - Psychotropic agents
PharmaTech	20.3%	79.7%	37.3%	- Infusion solutions - Sodium chloride - Normodipine* - Polyglucinum - Ringer
Yerevan CPF	14.9%	47.3%	57.1%	- Vitamines - Ointments

¹⁷ Could not give the name, it was mentioned as “Masis factory”.

				- Dimedrol - Analgin	- Distilled water
Esculap	10.8%	64.9%	27.1%	- Iodine - Hydrogen peroxide - Eludril*	- Escard - Rivanol
Vitamax-E	8.1%	60.8%	66.7%	- Narine - Narimax - Vitamines*	- Bioactive substance - Narine forte
Noki	8.1%	10.8%	37.5%	- Antibiotics - Aspirin - Gangleron	- Caproferr* - Vitamines*
Ghazaros	5.4%	18.9%	92.9%	- Medical herbs	-
Arsemi	4.1%	13.5%	70.0%	- Iodine - Medical alcohol - Galasiloc	- Hexiloc - Medical herbs*
Bizon-1	1.4%	10.8%	66.7%	- Oils	-
Eda-tech	1.4%	? ¹⁸	?	- ?	-
Antaram	1.4%	13.5%	100.0%	- Medical herbs	-
Hagenas	0.0%	12.2%	55.6%	- Oils - Apricotabs - Bioactive substance - 19	- Seat Buckthorn oil - Medical alcohol
Medical Horizon	0.0%	5.4%	0.0%	?	-

* - These pharmaceuticals are not produced by the mentioned producers

Again the gap between the figures of unaided and aided recall is quite big. The common judgment can be made – market participants are not effectively informed about the local producers of pharmaceuticals. In general, this problem mostly refers to producers – they must intensify their promotional campaigns.

Among physicians cases when they know a certain producer, but cannot recall the company name, are quite frequent. They sometimes use substituting words for real names, like: “Abovyan factory” for Arpimed, “Vitamine factory”, “Multi Group” and “Yerevan Pharm” for Yerevan CPF.

Armenian producers of pharmaceuticals recognized by representatives of pharmacies

In the network of pharmacies the level of awareness of Armenian producers is higher. The reason has been already given above. We just need to add that pharmacy representatives know more producers, including those that representatives of clinics never heard of. It seems like small producers really attacked pharmacies. They are sometimes more famous among pharmacies than larger producers. The data below prove this statement.

Table 15 - Armenian producers and their products familiar to pharmacy managers

Armenian producers familiar to pharmacy managers	Share of pharmacy managers aware of the producer		Share of pharmacy managers that are aware of the producer and know what pharmaceuticals are produced by them	Types of pharmaceuticals mentioned by pharmacy managers, produced by the companies they are aware of (first 5 mentionings)
	Unaided recall	Aided recall		
Liqvor	71.8%	98.8%	97.6%	- Taufone - Albucide - Sodium chloride - Ciprofloxacin - Dolex

¹⁸ Eda-tech was not mentioned during reminding the names of local producers

¹⁹ Active biological additions

Esculap	68.2%	98.8%	96.4%	- Escard - Mother wort - Sintomycline	- Haw - Furaciline
Arpimed	65.9%	97.6%	95.2%	- Amlodipine - Enalapril H - Expectorant	- Benzonal - Lisinopril
Arsemi	27.1%	89.4%	92.1%	- Nasiloc - Medical alcohol - Hexiloc	- Galasiloc - Naphthyzine -
PharmaTech	18.8%	90.6%	90.9%	- Dextrose - Ringer - Sodium chloride	- Iono-tech - Albu-tech
Hagenas	18.8%	87.1%	90.5%	- Seat Buckthorn oil - Aprocotabs - Apricot oil	- Medical alcohol - Peach oil
Eda-tech	16.5%	% ²⁰	?	-	-
Yerevan CPF	10.6%	64.7%	89.1%	- Vitamines (B, B1, B6, B12, C) - Aloe - Dimedrol	- Analgin - Gangleron*
Vitamax-E	8.2%	95.3%	97.5%	- Narimax - Bifidomax - Narine tabs	- Narine caps. - Narine forte
Noki	3.5%	69.4%	91.5%	- Aspirin - Albendazole* - Betadinoc	- Gangleron - Thiodine
Bizon-1	1.2%	78.8%	100.0%	- Seat Buckthorn oil - Nut oil - Grape oil	- Peach oil - Rosehip oil
Antaram	0.0%	96.5%	97.6%	- Medical herbs - Helichrysum - Calendula	- Valerian - Hypericum
Ghazaros	0.0%	85.9%	94.5%	- Medical herbs - Salvia - Samomile	- Mentha - Urtica
Medical –Horizon	0.0%	4.7%	75.0%	- Castor oil * - Cetamole, suppositoria and syrup	- Diclon

* - These pharmaceuticals are not produced by the mentioned producers

Based on the data we can be certain that **pharmacy managers** are aware of almost all producers and their product line. And this is the producers' achievement, who managed to properly position themselves and "inform" pharmacies about themselves. Among mentioned companies only Medical-Horizon still has to go through self-positioning, since it is in the process of doing the first steps in the market. Among pharmacy managers especially impressive are the positions of Liqvor, Esculap, and Yerevan chemical-pharmaceutical firm. Liqvor Company, which realizes its products mainly through distributors (pharmaceuticals bases) and almost does not communicate with pharmacies (according to Liqvor), is still very popular among pharmacy managers. This is, indeed, due to successful marketing policy applied by Liqvor. Relatively big popularity of Esculap among pharmacy managers is due to universal nature of its activities - the company is a producer + importer + network of own pharmacies simultaneously. Relatively low level of popularity of Yerevan CPF is to some extent "fake" or far from reality. This company actually has higher popularity, it is more frequently mentioned albeit under different names (was mentioned already as "Vitame factory" and "Yerevan pharm").

²⁰ Eda-tech was not mentioned during reminding the names of local producers

As concerns **pharmacists**, this group is the most knowledgeable/aware of producers. Only this group of respondents includes cases when everyone is aware of at least 3 producers. Also, only in this group the top popular/with top rating/ is not Liqvor, but Arpimed. Besides, Arpimed is the only company, whose production is familiar to all pharmacists²¹.

Table 16 - Armenian producers and their product lines familiar to pharmacists

Armenian producers familiar to pharmacists	Share of pharmacists aware of the producer		Share of pharmacists that are aware of the producer and know what pharmaceuticals are produced by them	Types of pharmaceuticals mentioned by pharmacists, produced by the companies they are aware of (first 5 mentionings)	
	Unaided recall	Aided recall			
Arpimed	97.6%	100.0%	100.0%	- Amlodipine - Enalapril H - Lisinopril	- Erythromycine - Benzonal
Esculap	90.6%	100.0%	96.5%	- Escard - Mother wort - Haw	- Sintomycine - Furacilin
Liqvor	87.1%	100.0%	98.8%	- Taufone - Albucide - Ciprofloxacin	- Floxadex - Optipred
Arsemi	56.5%	94.1%	91.2%	- Hexiloc - Medical alcohol - Nasiloc	- Naphthyzine - Galaziloc
PharmaTech	44.7%	94.1%	85.0%	- Dextrose - Sodium chloride - Ringer	- Iono-tech - Haemodesum
Eda-tech	30.6%	? ²²	?	-	-
Yerevan CPF	27.1%	68.2%	94.8%	- Vitamines (B, B1, B6, B12, C, E) - Aloe - Novocaine	- Analgin - Dimedrol
Hagenas	21.2%	81.2%	85.5%	- Seat Buckthorn oil - Apricotabs - Apricot oil	- Pumpkin oil - Peach oil
Vitamax-E	10.6%	92.9%	97.5%	- Bifidomax - Narimax - Narine	- Narine caps. - Narine tabs
Noki	10.6%	78.8%	97.0%	- Aspirin - Albendazole - Betadinoc	- Aspirin 325 - Neuralgin*
Bizon-1	7.1%	72.9%	95.2%	- Seat Buckthorn oil - Pumpkin oil - Apricot oil	- Rosehip oil - Nut oil
Antaram	7.1%	90.6%	100.0%	- Samomile - Helichrysum - Salvia	- Calendula - Urtica
Finea	4.7%	? ²³	?	-	-
Ghazaros	3.5%	85.9%	95.9%	- Samomile - Cortex Quercus - Hypericum	- Salvia - Foalfoot
Medical-Horizon	1.2%	7.1%	83.3%	- Cetamol - Cetamol suppositoria - Castor oil*	- Diclofenac - Ibuprofen syrup

²¹ Theoretically all pharmacists are aware of Antaram and its production, too, but it will be incorrect to compare Arpimed and Antaram, since product nomenclature and structure are significantly different for these companies.

²² Eda-tech was not mentioned during reminding the names of local producers

²³ Finea was not mentioned during reminding the names of local producers

* - These pharmaceuticals are not produced by the mentioned producers

The list of producers named by pharmacists is longer than the one presented in the table above. Among surveyed pharmacists an additional 13 companies were mentioned each by at least one pharmacist (presented below), of which only 3 are Armenian producers of pharmaceutical products. 11.7% of the pharmacists have mistakenly named foreign producers of pharmaceuticals believing them to be Armenian. They also name importers believing them to be producers.

- ▶ Alpha-Pharm ☞ *Importer*
- ▶ Armenia-Masis ☞ *None of specialists knows about such a producer. There are some doubts that the respondents tried to mention one of 2 producers operating in Masis (Medical-Horizon or Vitamax-E)*
- ▶ Delta-Pharm ☞ *Importer*
- ▶ Insi ☞ *Small producer, produces INSI Anti-acne*
- ▶ Egida ☞ *None of specialists knows about such a producer*
- ▶ Evalar ☞ *Russian producer*
- ▶ Evera ☞ *Importer*
- ▶ Leyko ☞ *Small producer*
- ▶ Natali Pharm ☞ *One of the largest importers*
- ▶ Nektar Bonus ☞ *Produces oils and does not have a license for the production of pharmaceuticals*
- ▶ Nib-Pharm ☞ *Importer*
- ▶ Armen-Pharm ☞ *Importer*
- ▶ Sopharma ☞ *Bulgarian producer*

At the outset of the survey, CAPS and the researchers assumed that respondents would be able to distinguish between Armenian producers and foreign producers, and between producers and importers. The results of the table above suggest otherwise. The questionnaire focused on awareness of names of pharmaceutical companies rather than trying to establish whether these companies could be distinguished between foreign companies or whether they were familiar as importers or producers. Further research in this area would be useful.

Sources of respondents' information on Armenian producers

Given significant differences in the levels of awareness of Armenian pharmaceuticals among consumers and other groups of respondents, one may infer that sources of their information are different both in quantity and structure. Assessment results confirm this statement.

Sources of information on Armenian pharmaceutical producers among consumers

Very few respondents replied the question about the sources of their awareness on Armenian producers: these data are based on only 10% of the responses. Anyway, consumers mentioned the following sources of information (listed by popularity among answers):

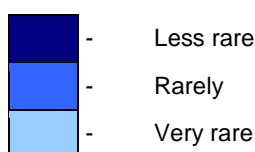
- ▶ TV shows, adds on TV, radio and other advertisement,
- ▶ Unknown (do not remember or do not know the source),
- ▶ Friends, relatives,
- ▶ Experience of buying and using the pharmaceutical product,
- ▶ Has relevant profession (works at healthcare sector),
- ▶ Physicians,
- ▶ Pharmacies.

Among consumers cases of simply forgetting how they heard about a particular producer are quite frequent. It can be inferred that the link “producer” - “consumer” in Armenian market of pharmaceuticals is weak enough, if not absent at all.

According to “famous” producers, information sources of consumers are the following:

Table 17 - 3 main sources of information on Armenian pharmaceuticals among consumers²⁴

Sources of information	PharmaTech	Vitamax-E	Arpimed	Yerevan CPF	Esculap	Hagenas	Antaram	Liqvor	Ghazaros	Medical-Horizon	Arsemi
TV shows, ads on TV, radio and other advertisement	Very rare	Very rare	Very rare	Rarely	Very rare	Very rare	Very rare	Very rare	Very rare	Very rare	Very rare
Friends, relatives	Very rare	Rarely	Rarely	Very rare	Rarely	Very rare	Very rare	Less rare	Very rare	Very rare	Very rare
Experience of buying and using the pharmaceutical product	Very rare	Very rare	Very rare	Very rare	Very rare	Very rare	Rarely	Rarely	Rarely	Very rare	Very rare
Physicians	Very rare	Very rare	Very rare	Very rare	Very rare	Very rare	Very rare	Very rare	Very rare	Very rare	Very rare
Pharmacies	Very rare	Very rare	Very rare	Very rare	Very rare	Very rare	Very rare	Very rare	Very rare	Very rare	Very rare
Unknown (do not remember or do not know the source)	Rarely	Very rare	Very rare	Less rare	Less rare	Rarely	Very rare	Very rare	Very rare	Very rare	Very rare



Sources of information on Armenian pharmaceutical producers among clinics

Assessment results show that sources of information of representatives of clinics and consumers significantly differ in structure. Consumers get the most of the information from TV - healthcare programs and ads, while at clinics the information on producers mostly comes directly from producers. According to the assessment results there is a link “clinics – producers” and there is also communication between these groups.

Table 18 - 3 main sources of information on Armenian pharmaceutical producers among Procurers at clinics *

Sources and ways of getting information	Liqvor	Arpimed	PharmaTech	Esculap	Yerevan CPF	Arsemi	Noki	Vitamax-E	Hagenas	Ghazaros	Antaram	Bizon-1
Producer visited and presented the company	36%	24%	23%	15%	5%		4%	8%				
Read on the pharmaceuticals boxes/packaging						5%	3%	8%				
From pharmacies	8%							8%	3%	8%	5%	1%
From co-workers				7%	11%	4%			3%	3%		

²⁴ The shares of respondents who answered this question is very low, The highest figure is the 3.84% for the TV shows...for PharmaTech

From databases of distributors/bases		8%	7%		5%							
From information catalogues (producers, business catalogues and etc.)									3%		4%	1%
Had difficulty to mention	16%	20%	26%	30%	15%	9%	14%	27%	4%	3%	4%	8%

* - shares computed based upon the total number of respondents in this particular group

The respondents that had difficulty to mention a particular source, either forgot how they heard of the producer, or gave answers from which it is hard to identify the source of information. For instance, some of the respondents told they heard about the producer “as a result of buying and using their production”, “during the working time”, or “because it is a famous company”. One may assume that most of these types of uncertain answers are due to forgetting the source of information. This can be the case, since many of the Armenian pharmaceutical producers already have 10-15 years of history. As concerns “more definite” sources mentioned by Procurers at clinics, there are 3 of them:

- ▶ Producers, who spread information about themselves,
- ▶ Colleagues, who disseminate information,
- ▶ Pharmacies, which exchange information with clinics and are in strong communication with them.

The situation is almost the same with physicians, with one exception. Here the cases when physicians got familiarized with the producer’s name by reading it on the pharmaceuticals’ boxes/packaging are very frequent, possibly due to those cases when pharmaceutical companies are giving samples of their products.

Table 19 - 3 main sources of information on Armenian pharmaceutical producers among physicians*

Sources and ways of getting information	Liqvor	Arpimed	PharmaTech	Esculap	Yerevan CPF	Arsemi	Noki	Vitamax-E	Hagenas	Ghazaros	Antaram	Bizon-1
Producer visited and presented the company	32%	18%	8%	11%		3%		8%	4%		3%	1%
Read on the pharmaceuticals boxes/packaging	12%	16%	12%	9%	9%	1%	4%	15%		5%	4%	
From pharmacies								8%		7%	4%	3%
From colleagues			12%		4%				3%		3%	1%
Had difficulty to mention	22%	27%	35%	32%	26%	9%	7%	19%	4%	4%		5%

* - shares computed based upon the total number of respondents in this particular group

Before summing up this section it is worth mentioning that in this case also, Liqvor Company is distinguished for its skills to disseminate information about themselves. Almost 1/3 of physicians precisely remember in what circumstances they got acquainted with Liqvor: no other local producer is such well-known.

Sources of information on Armenian pharmaceutical producers among pharmacies’ representatives

About 1/3 of pharmacy managers and employees cannot precisely tell how they got “introduced” to Armenian producers of pharmaceuticals. The most popular answer is that they got information on the producers while working at pharmacy; however, it is difficult for them to recall how exactly it happened. If this group of “forgetting people” is separated, 2 main sources of information among pharmacy managers and pharmacists will be left: direct producers and distributors/bases.

Table 20 - 3 main sources of information on Armenian pharmaceutical producers among pharmacy managers*

Sources and ways of getting information	Liqvor	Arpimed	PharmaTech	Esculap	Yerevan CPF	Arsemi	Noki	Vitamax-E	Hagenas	Ghazaros	Antaram	Bizon-1
Producer visited and presented the company	27%	35%	18%	18%	19%	15%	13%	20%	14%	13%	14%	13%
From databases of distributors/bases	24%	9%	25%		18%		28%	33%	31%		34%	33%
From information catalogues				8%		7%				8%		
Had difficulty to mention	32%	33%	29%	33%	19%	29%	20%	32%	28%	24%	31%	24%

* - shares computed based upon the total number of respondents in this particular group

Table 21 - 3 main sources of information on Armenian pharmaceutical producers among pharmacists*

Sources and ways of getting information	Liqvor	Arpimed	PharmaTech	Esculap	Yerevan CPF	Arsemi	Noki	Vitamax-E	Hagenas	Ghazaros	Antaram	Bizon-1
Producer visited and presented the company	19%	22%	22%	22%	14%	25%	24%	28%	18%	27%	28%	21%
From databases of distributors/bases	13%	12%	9%	11%	9%	8%	8%		11%	9%	9%	8%
From information catalogues						8%		7%				8%
Had difficulty to mention	40%	38%	34%	36%	22%	35%	27%	36%	32%	33%	32%	25%

* - shares computed based upon the total number of respondents in this particular group

The tables above witness that all producers “work” in close cooperation with pharmacies, providing pharmacies with sufficient information about themselves. What is left or missed by producers is complemented by distributors/pharmaceuticals' bases.

RESPONDENTS' PERCEPTION TOWARDS ARMENIAN PHARMACEUTICALS

RESPONDENTS' EXPERIENCE IN USE OF PHARMACEUTICAL PRODUCTS

Respondents experience in use of pharmaceuticals could be considered as the most objective basis for the formation of respondents' perception. It has nothing common with either superstition or with information from secondary (sometimes wrong or misleading) sources. Therefore, before getting familiar with buyers' attitude towards Armenian pharmaceuticals, it is important to assess the level of respondents' experience.

Consumers' experience in using Armenian pharmaceuticals

Consumers buy pharmaceuticals exclusively from pharmacies. Timeframe for assessing the frequency of their visits to pharmacies and frequency of purchasing pharmaceuticals was defined as the 4-month period preceding the assessment, i.e. January-April 2008. The results show that during that period one consumer had on average 8.3 visits (weighted average) to pharmacies to buy pharmaceuticals. Such frequency of visits could have been considered as *having sufficient experience in procuring pharmaceuticals*, if not one single fact - standard deviation (deviation from mean attendance) is quite high among consumers. 36% of respondents visited pharmacies only once during last 4 months, and 29%- 2-5 times (see Figure 22): These people cannot be considered as quite experienced in buying pharmaceuticals.

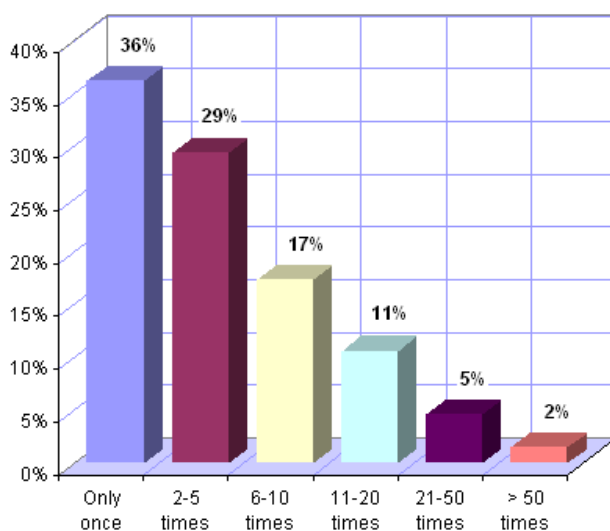


Figure 22 - Frequency of consumers' visits to pharmacies during January-April 2008

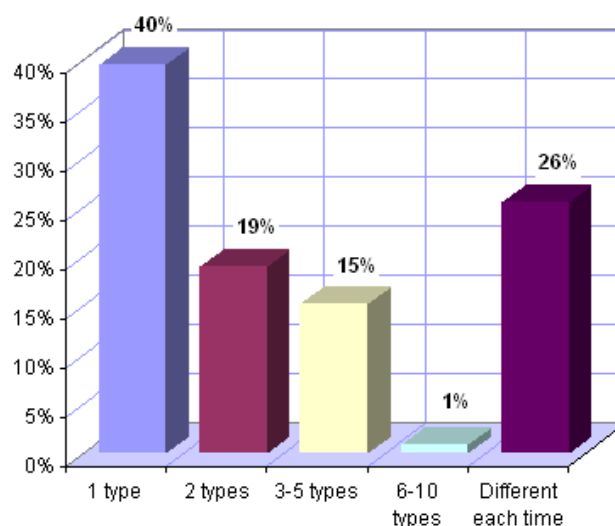


Figure 23 - Quantity of pharmaceuticals bought per purchase

When visiting pharmacies, each time each of the consumers buys on average 1.31 pharmaceuticals (weighted average). The share of consumers buying 1 type of pharmaceutical is 40% (see Figure 23). What do these data suggest? First, it needs to be considered that there are people in our society that have no reason/occasion to go to a pharmacy, or do it rarely, or due to poverty²⁵. If we add to them the big sample of people who visited pharmacies at least once in last 4 months, we will get a picture according to which almost half of the consumers of pharmaceuticals rarely deal with pharmacies and pharmaceuticals. This fact decreases possibility of their awareness of pharmaceuticals, which means that for non-aware' consumers it will be difficult (if not impossible) to make objective inferences about pharmaceuticals. This is clearly proved by the finding that 53% of consumers do not know (has difficulty to answer) were there any Armenian pharmaceuticals among those they ever bought. We can definitely state that a part of that 53%, indeed, bought or used pharmaceuticals of Armenian production, however it cannot be defined what part of consumers was it and what pharmaceuticals were those.

²⁵ The research Implementer is unable to assess the share of people in our society who do not attend pharmacies, since the interviews within the scope of this research have been conducted either inside pharmacies or in surrounding areas, i.e. among actual consumers.

Representatives of this group, even if all of them bought Armenian pharmaceuticals, could not make experience-based inferences about their perception, since their attitude was formed under other factors like: advices and opinions of friends, relatives, physicians or pharmacists. 21% of consumers claimed to have never bought pharmaceuticals of Armenian origin. It appears that the real or "conscious" experience in buying Armenian pharmaceuticals has 26% of consumers. Therefore, it can be seen the consumers' attitude towards Armenian pharmaceuticals, but its absence. This phenomenon is assessed in more detail in the next section.

There is another interesting finding. As mentioned above, interviews with consumers were conducted at pharmacies or nearby areas, i.e. among people, who had just purchased pharmaceuticals and were getting out of pharmacies. The assessment results show that at that point of time 384 consumers all together purchased 549 types of pharmaceuticals (on average 1.4). Consumers were unable to distinguish 42% of these products whether they are imported or locally produced. This infer two things: a) the pharmaceuticals' origin was not essential for consumers, or b) consumers bought the pharmaceuticals based on prescription, without going into detail what has been bought. As concerns other pharmaceuticals (the origins of which were familiar to consumers) the breakdown is as follows: 48% of them were imported and 10% - locally produced.

Information

26% of consumers are experienced in consuming Armenian pharmaceuticals. In the sample they make 99 people. The latter all together bought 100 types of pharmaceuticals or 1 pharmaceutical by one person only during April 2008. Among these people pharmaceuticals with top 5 popularity are;

1. Valerian - 12%
2. Haw - 9%
3. Iodine - 8%
4. Askophen - 6%
5. Mother wort - 5%.

The abovementioned 48% of respondents (who purchased imported pharmaceuticals) declared that for the 77% of pharmaceuticals they purchased they don't know whether there are Armenian analogues, or not. Consumers think that in case of 20% of pharmaceuticals they purchased there are no such analogues. Only for the last 3% of pharmaceuticals they purchased they surely told that there are Armenian analogues. Consumers also told that they haven't been suggested to substitute imported pharmaceuticals with locally produced ones at pharmacies.

Practices of purchasing the Armenian pharmaceuticals at clinics

It has been mentioned already that representatives of clinics are relatively informed/aware of Armenian pharmaceuticals and producers. It is important also that on average 20-25% of them could not recall how they met with the Armenian pharmaceutical producers, although vast majority of this group of people told that it was *during their work activities*. This means that people who work at clinics to some extent have access to main events related to pharmaceuticals and based on the received information they form their perception towards certain products.

But what is the share of clinics consuming Armenian pharmaceuticals? 84% of **Procurers of pharmaceuticals at clinics**, reported to buy Armenian production for their companies/clinics. The majority of purchased Armenian pharmaceuticals are produced by Liqvor, PharmaTech, Arpimed, and the leading product types mostly consumed are *infusion solutions*. Among mostly consumed Armenian pharmaceuticals are: *Lidocaine, Analgin*. 12% of Procurers of pharmaceuticals at clinics reported that they never bought pharmaceuticals produced by Armenian companies. Majority of these people are representatives of dental clinics, who claimed to have no information on availability of Armenian products that are used in their field. Procurers explain their behavior of not buying Armenian pharmaceuticals by low quality and inefficiency of locally produced pharmaceuticals. There were opinions such: "*there is no adrenalin in locally produced lidocain*" or "*psychotropic agents affect very inefficiently*" and etc. 4% of Procurers could not even recall if they ever bought Armenian pharmaceutical products.

The picture with experience in using (or prescribing) Armenian pharmaceuticals is almost the same for **physicians**. 84% of them in practice uses (prescribes) Armenian pharmaceuticals, of which most popularly

used are: infusion solutions, antibiotics, lidocain, vitamins. 16% of physicians do not use (prescribe) Armenian pharmaceuticals. There are some physicians who are not even aware of Armenian pharmaceuticals or do not use them because their managers (they meant Procurers of pharmaceuticals at clinics) do not buy them. However, in this group physicians that do not simply trust Armenian production are more frequently met. Moreover, quite often this mistrust is not even explained or justified (*"simply do not trust"*).

Practices of purchasing the Armenian pharmaceuticals at pharmacies

There is no pharmacy in Armenia that did not or currently does not sell Armenian pharmaceuticals. In case of pharmacies one may notice the approach applied by commercial entities: *"the larger the nomenclature and opportunities for choice, the more clients and attendance"*. Pharmacies sell numerous analogues of the same pharmaceuticals: of different origin, producers and prices. Physicians prescribe various analogues of the same pharmaceutical to different patients, based on their purchasing power. Pharmacies must meet this changing demand. There is opinion also that this aims also at meeting demand of various physicians, who have different opinions on different analogues of the same pharmaceuticals, and apply different approach, which is sometimes not objective (the reasons are discussed later in the text).

Supplies of pharmaceuticals to pharmacies are implemented by **pharmacy managers**, although there are quite frequently met cases when this task is assigned to one of the pharmacists. Top 5 Armenian pharmaceuticals mostly bought by pharmacy managers are presented in Figure 24. **Pharmacists** almost entirely confirm the information given by pharmacy manager on mostly purchased/sold pharmaceuticals (see Figure 25):

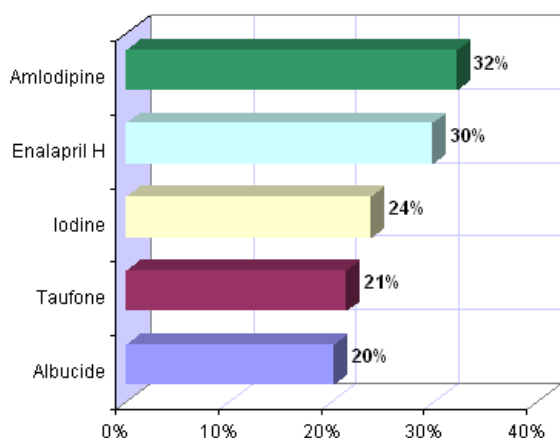


Figure 24 - Top 5 Armenian pharmaceuticals purchased by pharmacy managers for selling at the pharmacy

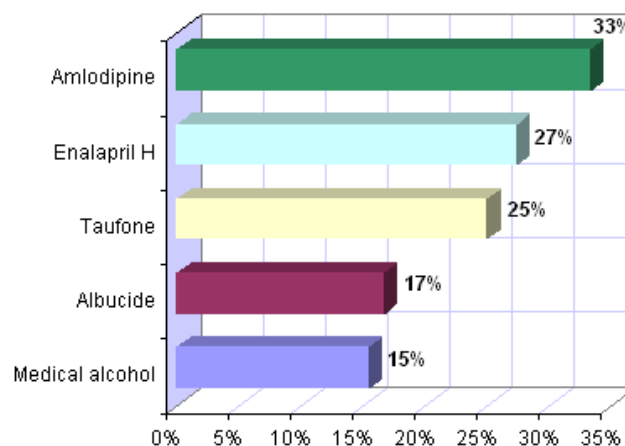


Figure 25 - Top 5 Armenian pharmaceuticals sold by pharmacists

ELEMENTS OF RESPONDENTS' PERCEPTION

The importance of pharmaceuticals' origin

When describing their perception towards Armenian pharmaceuticals almost all respondents viewed these products in comparison with the imported analogues. In the Armenian market imported pharmaceuticals have fame of *"higher quality"* and *"more efficient"*, moreover, during several years this perception turned into psychological incline towards the imported products having advantage over local production.

However, assessment results show that the image of imported pharmaceuticals are not that unshakable. It is worth mentioning that when assessing certain pharmaceuticals positive or negative opinion is given not about the producer, but about the country of origin, too. Thus, pharmaceuticals of German, French,

Hungarian, Slovak production are known for higher quality, while others, like Indian, Chinese and Iranian products were strongly criticized.

The importance of the origin of pharmaceuticals among consumers

As mentioned in all previous cases, in terms of how they perceive the importance of pharmaceuticals' origin, consumers cannot be observed at the same level with other respondent groups. Low level of their awareness does not allow consumers make sound/justified inferences. Not surprisingly, 72% of respondents gave non-specific answers to the question about pharmaceuticals' origin: 16% had difficulty to answer, and for 56% the origin turns out to be unimportant (see Figure 26). In other words, for almost 72% of respondents, the origin of pharmaceuticals does not matter. Majority of consumers calls the pharmaceuticals origin to be unimportant, since otherwise they would have to present their preferences in more or less reasonable way, which is hard to do having low level of awareness.

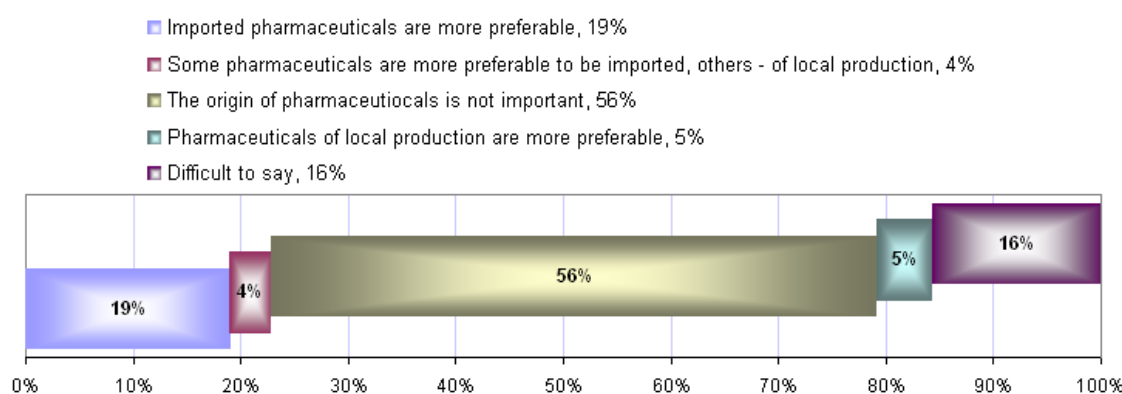


Figure 26 - The importance of pharmaceuticals' origin among consumers

A part of consumers that have formed preferences (independently from whether the preferences are justified, or are results of superstitious or psychological complexes) gave their preferences to imported pharmaceuticals. This group of consumers is 4 times as big as the group that gave importance to Armenian origin of pharmaceuticals. And why are the imported pharmaceuticals preferred? There are lots of possible answers, while not many substantiations. The most popular reasons given by consumers who prefer imported pharmaceuticals are: *“imported pharmaceuticals have higher quality and are more trustworthy”, “are more efficient”, “experience shows their trustworthiness”*. A part of this group (21%), prefer imported pharmaceuticals since *“do not trust Armenian pharmaceuticals”,* and 12% *“are not even aware of availability of Armenian products”*. 4% of consumers was able to compare imported and locally produced pharmaceuticals, and mentioned that in some cases they prefer imported, while in other cases Armenian products. However, it is worth mentioning that as compared to imported pharmaceuticals, product nomenclature for preferred Armenian pharmaceuticals is much scarcer. The list of preferable Armenian pharmaceuticals is comprised of herbs, Aspirin, Narine.

The importance of the origin of pharmaceuticals among representatives of clinics

Representatives of clinics show more professional and mainly objective attitude, since as they mention, the quality of services provided by them depends on used or prescribed pharmaceutical products. However, representatives of clinics consider the pharmaceuticals origin as one of the assessment criteria, as well.

Procurers of pharmaceuticals at clinics and physicians expressed similar opinions on the importance of pharmaceutical product origin (see Figure 27):

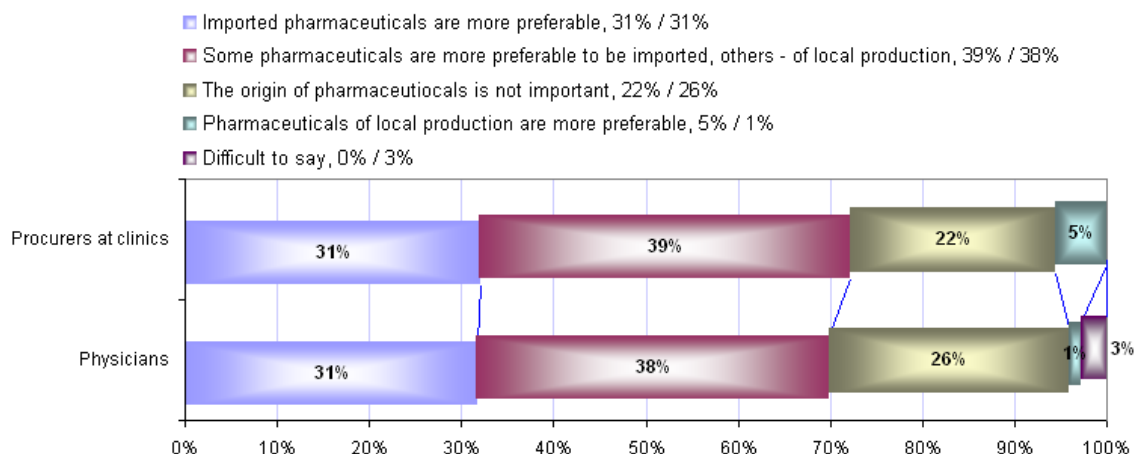


Figure 27 - The importance of the origin of pharmaceuticals among representatives of clinics

31% of the representatives of clinics prefer imported pharmaceuticals, mentioning that “these products have substantially higher quality and efficiency than those of Armenian producers”, and they explain loyalty to the imported products, saying that: “they have no right to prescribe less effective pharmaceuticals and make experiments with people’s health, when there are high-quality pharmaceuticals available (they mean imported pharmaceuticals)”: Representatives of clinics justify the mistrust towards Armenian pharmaceuticals by the following examples: a) Armenian psychotropic agents (Arpimed) do not affect patients, b) liquid pharmaceuticals’ packages do not close firmly and liquid flows out of the flacon (Esculap), c) there is no instructions for use (did not specify whose production). It is not possible to try to quantify these answers, since only few respondents tried to explain their positions or bring any proof for their statements. More generally, they simply “don’t trust”.

The largest group of representatives of clinics (38-39%), though, appears to be more pragmatic, and mention that among pharmaceuticals they prefer there are pharmaceuticals both imported and of Armenian production. Among Armenian pharmaceuticals preferred by representatives of clinics most popular ones are: *infusion solutions, dimedrol, vitamins, analgin, caprofer, Narine*.

Unfortunately, within professional society Armenian origin of pharmaceuticals is not yet considered an advantage, but, instead, disadvantage. In this respect, Armenian producers should put together serious efforts, in order to change that image. Figure 27 shows that the number of representatives of clinics giving preference to Armenian pharmaceuticals is small enough. This small group of people even could not justify /explain what reason they prefer Armenian pharmaceuticals for, which suggests that obvious and weighty arguments in favor of Armenian pharmaceuticals are still very small.

The importance of the origin of pharmaceuticals among representatives of pharmacies

Analysis of the answers given by pharmacy representatives suggests that the importance of pharmaceuticals' is assessed by them both from professional viewpoint and as representatives of commerce. Especially in case of **pharmacy managers**, for 54% of which the origin is not important, they give more importance to sales/realization of pharmaceuticals. This is, perhaps, logical, but it is important to mention that many buyers get information on pharmaceuticals from pharmacies. This means that pharmacy representatives (particularly, pharmacists) also give advices to their clients, and their tendentious attitude or preferences can become a factor of buying pharmaceuticals. In this respect, preferences of pharmacy representatives are also an interesting object to observe (see Figure 28):

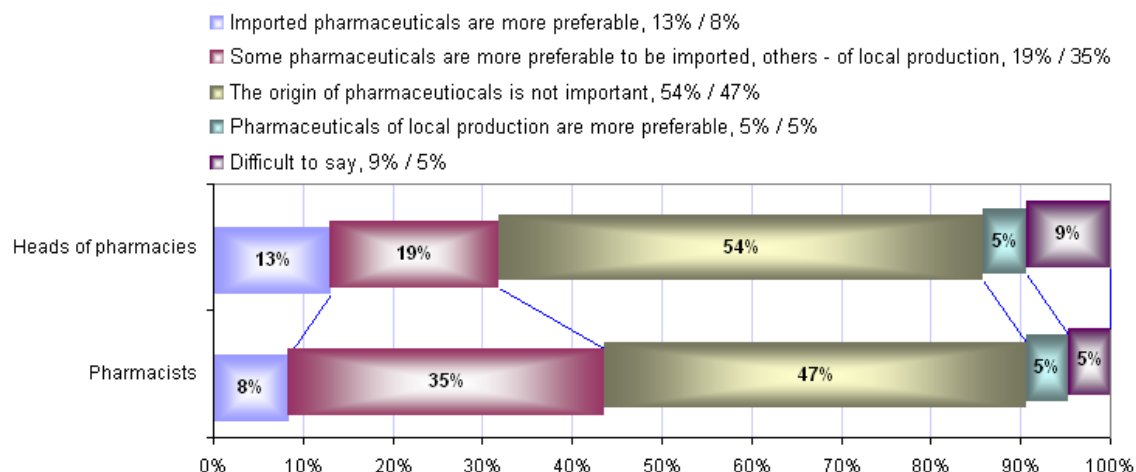


Figure 28 - The importance of the origin of pharmaceuticals among pharmacy representatives

Like all other groups of respondents pharmacists also prefer imported pharmaceuticals more than the local ones. However, this gap is not as deep as in case of representatives of clinics. Only within the group of pharmacy representatives was possible to meet people who prefer Armenian pharmaceuticals based on patriotic sentiments. This small group of people (5% of pharmacy representatives) comments their position as: “would like to promote Armenian production and producers, since development of Armenian producers is beneficial to the economy of Armenia”.

Respondents' evaluation of some characteristics of pharmaceuticals

Respondents' attitude towards the origin of pharmaceuticals does not allow to understand which specific advantages form positive perception of respondents towards imported products and what disadvantages form critical attitude of respondents have towards Armenian pharmaceuticals. In order to find out this, two consequential steps were conducted:

- Respondents were asked to evaluate 4 main characteristics of pharmaceuticals: quality (influence efficiency), price, packaging, availability. These characteristics were evaluated for both imported and locally produced pharmaceuticals, thereby, getting *comparative picture*. Imported pharmaceuticals were divided into 2 groups by origin *international* (American and European pharmaceuticals) and *Russian* (as a group of pharmaceuticals which by image is positioned in the middle between international and Armenian pharmaceuticals). The questions related to comparative assessment of pharmaceuticals were asked to all consumer groups.
- Respondents from clinics and pharmacies were asked to evaluate Armenian pharmaceuticals separately, based on a wider list of product characteristics (profit margin, quality of distribution, nomenclature were added to the 4 characteristics above), which allowed to understand more deeply strengths and weaknesses of Armenian pharmaceuticals. These questions related only to Armenian pharmaceuticals were asked to only two groups of respondents - Procurers at clinics and pharmacy managers.

Comparative evaluation of pharmaceuticals: Armenian vs. imported

Respondents were asked to rank characteristics of pharmaceutical products based on *4-scale system*, where “4” stands for the most positive, and “1” for the most negative response. The table below presents definitions of all scale levels:

Characteristics of pharmaceuticals	⇒	Influence efficiency (quality)	Price	Packaging	Availability
Evaluation bases definitions	⇒	4 - very efficient 3 - efficient 2 - weak 1 - inefficient	4 - very inexpensive 3 - inexpensive 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

It is worth mentioning that among all groups of respondents there are not many people who had difficulty making comparative evaluation of pharmaceuticals. Shares of respondents among 5 groups who made evaluations based on 4 characteristics are presented below:

Table 22 - Shares of respondents who were able to make comparative evaluation of pharmaceuticals

Consumer groups	⇒	Influence efficiency (quality)			Price			Packaging			Availability		
		Armenian	Russian	International	Armenian	Russian	International	Armenian	Russian	International	Armenian	Russian	International
		Consumers	26%	57%	49%	27%	52%	49%	27%	54%	50%	27%	51%
Procurers at clinics	⇒	76%	82%	88%	84%	95%	97%	88%	84%	100%	93%	99%	100%
Physicians	⇒	82%	91%	93%	82%	95%	99%	95%	99%	99%	97%	99%	97%
Pharmacy managers	⇒	89%	93%	94%	96%	99%	99%	99%	99%	99%	98%	98%	98%
Pharmacists	⇒	92%	95%	98%	99%	95%	98%	99%	99%	100%	99%	100%	96%

When comparing average scores answers of these people were not taken into consideration.

Here we present the results of comparative assessment of Armenian and imported pharmaceuticals by 5 consumer groups.

In making comparative evaluation of Armenian and imported pharmaceuticals **consumers** had the most difficulty. 36% of them was totally unable to give any estimation of any characteristics of Armenian and imported pharmaceuticals. The answers of consumers are resumed in Figure 29.

Only 36% of consumers make estimations based upon their own experience of using pharmaceuticals. Within this group the influence of indirect/secondary sources is significant. Thus, 24% of consumers based their estimations upon advices of friends or relatives, 17% - on TV programs related to health care and ads, 11% - on advices of physicians and pharmacists²⁶.

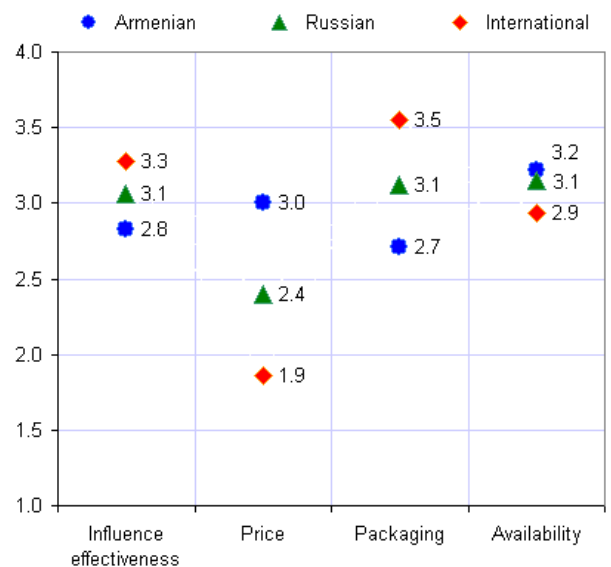


Figure 29 - Comparative assessment of some characteristics of pharmaceuticals by consumers

²⁶ Many respondents mentioned that 2-3 sources served as bases for forming their estimations of pharmaceutical products.

Comparative assessment by representatives of clinics:

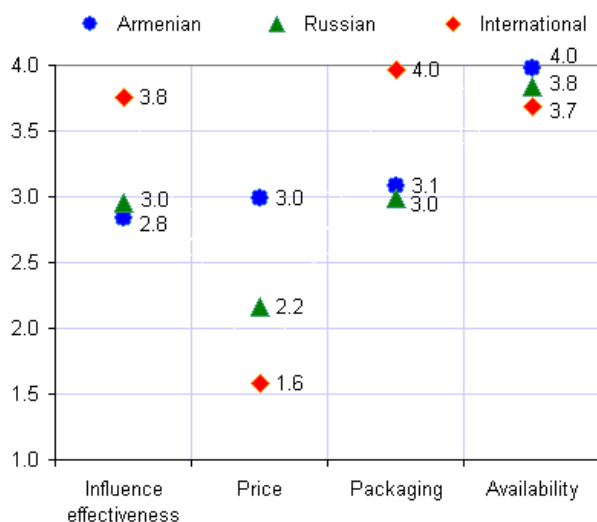


Figure 30 - Comparative assessment of some characteristics of pharmaceuticals by Procurers of pharmaceuticals at clinics

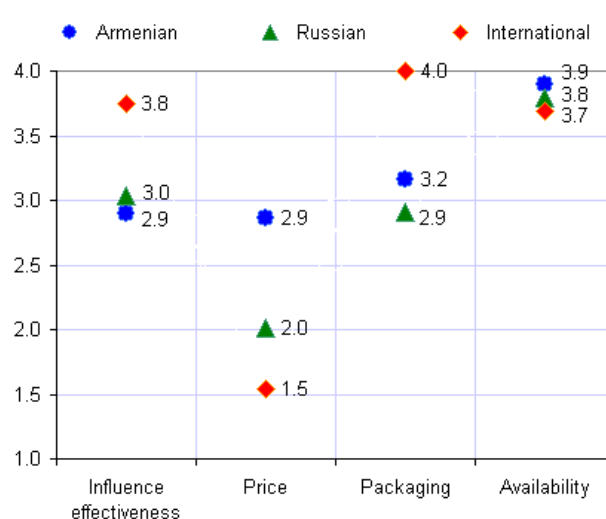


Figure 31 - Comparative assessment of some characteristics of pharmaceuticals by physicians

Comparative evaluation of pharmacy representatives:

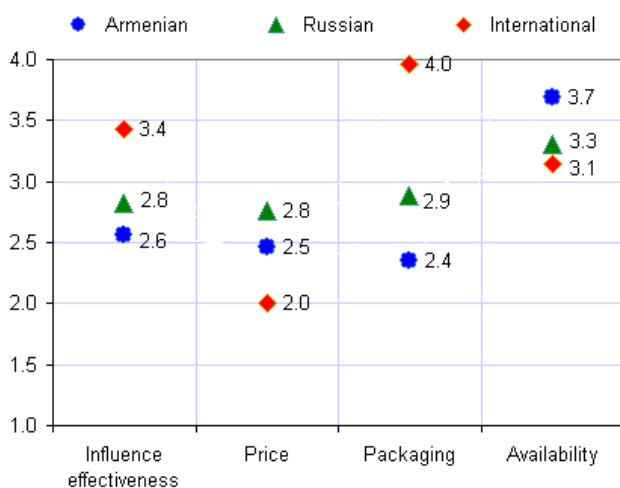


Figure 32 - Comparative assessment of some characteristics of pharmaceutical products by pharmacy managers

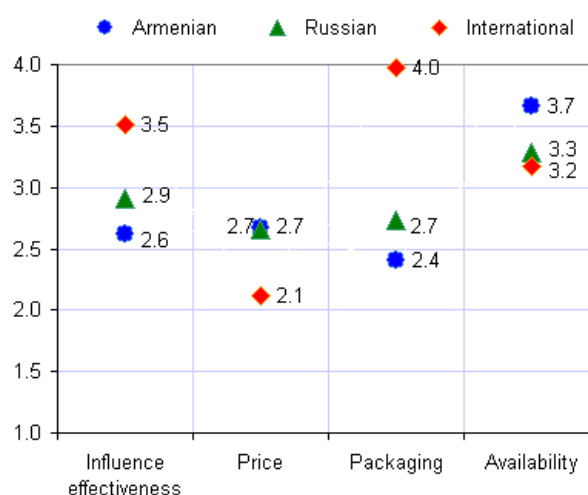


Figure 33 - Comparative assessment of some characteristics of pharmaceutical products by pharmacists

While assessing 4 above characteristics of pharmaceutical products almost all representatives of clinics and pharmacies formed their evaluations based on their *own experience*.

General observation based upon consumers' assessment is that **Armenian pharmaceuticals are considered to be less expensive and more available than the imported production**. All respondents agree upon this issue. At the same time, they agree on the opinion that: **the imported pharmaceuticals have higher quality (in terms of influence efficiency) and has better packaging as compared to the Armenian production**. Considering the fact that respondents obviously give more preference to imported than to Armenian pharmaceuticals, we can claim that the most important characteristics of pharmaceuticals are perceived to be the quality. If the quality exists the high price becomes an issue of secondary importance. This is natural, since pharmaceuticals are special type of products and their use is directly related to people's health. And people mainly are not inclined to save money at the cost of their health.

Respondents' assessment of Armenian pharmaceuticals

Deeper assessment of Armenian pharmaceuticals was done by two main groups who are responsible for wholesale purchase of pharmaceuticals: Procurers of pharmaceuticals at clinics and pharmacy managers. They were asked to make assessment based on a wider list of characteristics, presented below:

1. Price	4. Nomenclature	7. Promotion
2. Packaging	5. Quality	8. Motivation
3. Profit margin	6. Image	9. Quality of distribution

These characteristics were assessed based upon 5-scale system, where "5" stands for the most positive, "1" - for the most negative response.

According to **Procurers of pharmaceuticals at clinics** the most attractive side of Armenian pharmaceuticals is the lower price as compared to the imported analogues. For instance, a) Armenian *Enalapril-H* containing 20 pills is sold for AMD 750 at pharmacies, while its Slovenian analogue - *Enap-H* - (producer - KRKA) costs AMD 2000 for the same size, b) Armenian *liquid Paracetamol* 60ml flacon costs AMD 250, while 100ml of the English analogue - *Panadol* (producer: Glaxo) costs AMD 1000 at pharmacies. Therefore, the price of Armenian pharmaceuticals as compared to other characteristics received the highest score (3.9 out of 5, see Figure 34).

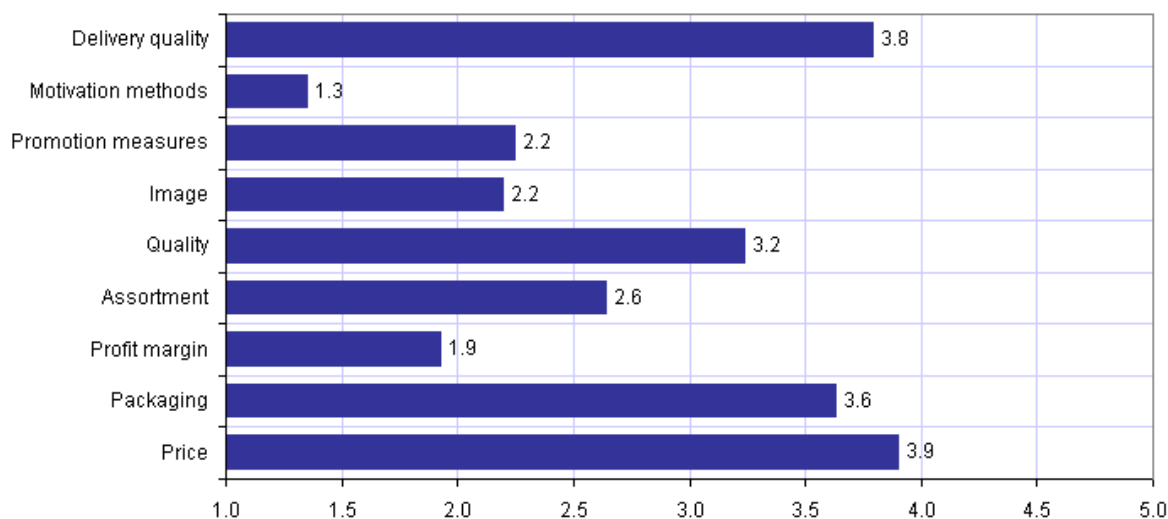


Figure 34 - Assessment of some characteristics of Armenian pharmaceuticals by Procurers of pharmaceuticals at clinics

Relatively high scores were given to packaging and quality of distribution (method) of Armenian pharmaceuticals. According to Procurers of pharmaceuticals at clinics, packaging of Armenian pharmaceuticals needs to be improved, but it is not so bad that can hinder product realization. The fact that every year Armenian producers improve quality of packaging has been assessed positively, and in this respect, efforts of Liqvor, Arpimed, and PharmaTech are especially noticeable. As concerns distribution, it is worth mentioning that the market of pharmaceuticals is highly organized, and in this market Armenian pharmaceuticals have a precisely organized way to reach their consumers. This way/method is very efficiently operating chain of "producer – to - distributor/base –to -consumer", where distributors/bases are specialized and perform functions of warehouses for producers and distributors. Indeed, it is important to mention that high-quality organization of distribution is not an advantage of Armenian pharmaceutical enterprises. Distribution of imported pharmaceuticals is organized by the same level of efficiency and the same methods.

Quality of Armenian pharmaceuticals was assessed to be above average (positive). According to Procurers at clinics, Armenian producers still have lot to do to improve their production quality. For their low quality were mentioned: psychotropic agents (do not affect), Lidocain (is like "water"). However, these opinions are rare and cannot be taken as base. General opinion is that most popularly consumed pharmaceutical,

particularly, infusion solutions (produced by Liqvor, PharmaTech) have quite high quality, which proves dominant market position of these products.

Nomenclature of Armenian pharmaceuticals received average estimation; since Armenian producers all together produce about 500 types of pharmaceuticals, while number of pharmaceuticals' types available in Armenia is more than 3,500. Respondents' average estimation suggests that even if they had demand for Armenian pharmaceuticals producers could not meet the demand.

"Not satisfactory" estimation was given to such characteristics of Armenian pharmaceuticals and tools of realization, as methods of promotion and motivation, profit margin from realization of Armenian pharmaceuticals. According to Procurers at clinics, efforts of Armenian producers to promote their products seem to be imitation of efforts compared to the efforts of importers. Advertisement done by Armenian producers, product presentations, and other actions of information dissemination and explanation are not sufficient in order to make Armenian pharmaceuticals well-known and trustworthy. As concerns the producers' efforts to motivate their clients (money awards, gifts), these are very rare and mainly episodic. Profit margin formed as a result of Armenian pharmaceuticals' sales is low. This is natural, since in the local market Armenian pharmaceuticals are positioned at low price niche, which affects absolute value of profit margin after sales.

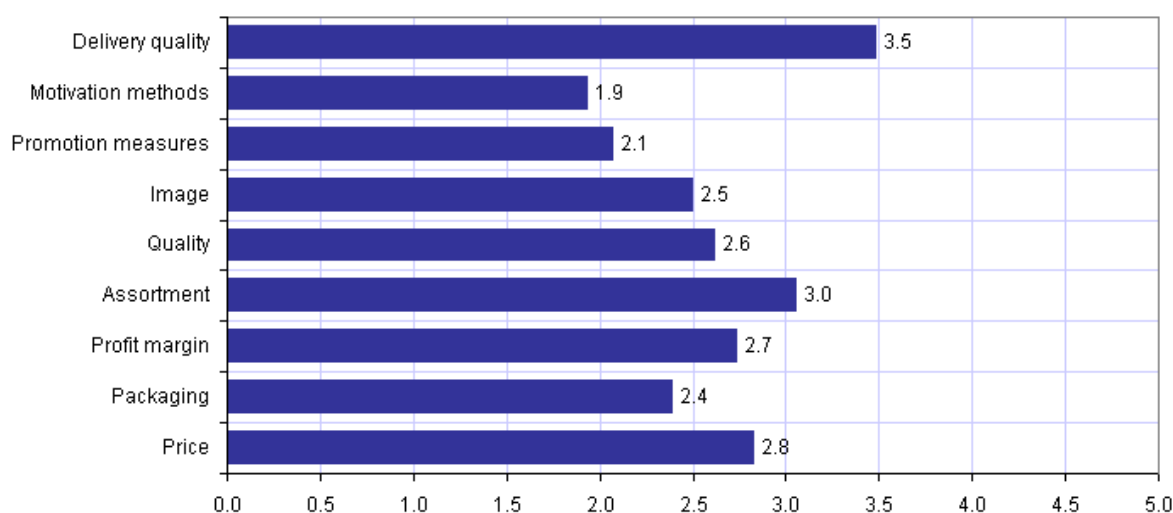


Figure 35 - Assessment of some characteristics of Armenian pharmaceuticals by pharmacy managers

In the context of all these estimations the image of Armenian pharmaceuticals is still not high, and this is a serious barrier on the way of competing with imported products.

Estimations of **pharmacy managers** to some extent differ from the estimations of Procurers of pharmaceuticals at clinics (see Figure 35). Pharmacy managers do not agree with their colleagues from clinics on the issues regarding the price, packaging, profit margin, and methods of motivation of Armenian pharmaceuticals. According to them, although prices are relatively low, but not low enough to consider it as competitive advantage. Expectations of pharmacies from packaging are bigger; therefore estimation of packaging of Armenian pharmaceuticals is lower than estimation given by packaging, profit margin, and methods of motivation.

It is worth mentioning that pharmacy managers are a little more satisfied with motivation methods applied by Armenian producers. It is mainly due to particularly high activeness of small producers at pharmacies, a significant part of producers manages to motivate pharmacy managers or pharmacists by different methods (sometimes even by material motivation).

PECULIARITIES OF RESPONDENTS' BEHAVIOR

Given different levels of awareness about Armenian pharmaceuticals and different perception, respondents also behave differently when making purchases. Respondents' purchasing behavior is based on several factors, which influence their decision to buy certain pharmaceutical product.

CONSUMERS' BEHAVIOR WHEN PURCHASING PHARMACEUTICALS

As mentioned previously, pharmaceuticals for consumers are not for everyday consumption and represent a special group of products related to health of which final consumers have not much knowledge. However, since sooner or later each consumer has to buy pharmaceuticals (frequently or rarely), there is always a second agent (individual), who usually gives advice. The survey results show that such advisors can be spouses of consumers, or friends, physicians, and pharmacists. Consumers can ask for advice from more than one of these individuals. And independently from whose and which kind of advices are used by consumers to make a decision on purchasing pharmaceuticals, there is a group of people whose advice or opinion has exceptional importance and meaning for consumers. These **people are physicians**.

The assessment results show that 71% of consumers rely exclusively on physicians' opinions or prescriptions when purchasing pharmaceuticals. This wide reliance on physicians' opinions is not only because of low level of awareness among consumers.

The latter perceive physicians as the only knowledgeable specialists who can solve their health problems, which makes consumers directly and psychologically dependent upon physicians.

There are also many cases when consumers follow pharmacists' advice (18%). This usually happens in 2 cases: a) when a consumer cannot find the pharmaceuticals prescribed by a physician at pharmacies and asks for a pharmacist's advice to substitute it with the analogue, b)

when a consumer goes to the pharmacy to buy the necessary pharmaceuticals without consulting a physician (usually in cases of so called "light illnesses" (flu, allergy, low temperature and etc)).

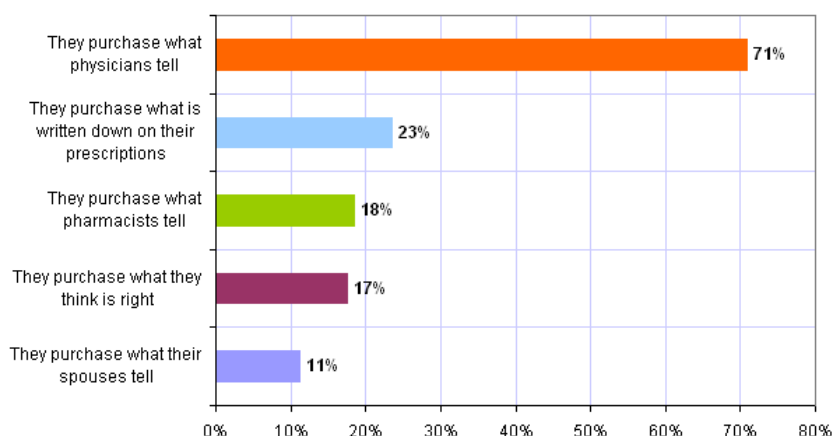


Figure 36 - Breakdown of consumers' buying behavior by the groups they consult

After the consumer has solved his/her main problem, i.e. consulted someone and found out the names of pharmaceuticals he/she needs to take, some new factors arise, which later affect consumer's decision to buy. These factors are:

- ▶ **Price of the pharmaceuticals** (*in various pharmacies prices for the same product can be different, and the required/prescribed pharmaceuticals can have analogues which are sold at significantly different prices*),
- ▶ **Physician's guarantee** (*physician's guarantee can be so important that a consumer can import the pharmaceuticals even from abroad, just to make sure this is the one prescribes by his/her physician (although the analogue is sold at pharmacies)*),
- ▶ **Packaging** (*consumers can buy pharmaceuticals with nicer packaging if there is choice*),
- ▶ **Remoteness of the pharmacy** (*consumers may be short of time and substitute the prescribed pharmaceuticals with the analogue purchased from the closest pharmacy*),
- ▶ **Quality of service at pharmacy** (*consumers can prefer to make purchases only from pharmacies with high quality of service*),

- ▶ **If the pharmaceuticals are advertised** (consumers can prefer to buy pharmaceuticals which are familiar to them from advertisement, if there is choice).

The importance of these factors has been assessed by consumers based on 3-scale system, where “3” stands for *very important*, “2” *important*, and “1” for *not important*. The results of assessment are presented in Figure 37.

All consumers intuitively mentioned that most of all they give importance to the *influence efficiency* of pharmaceuticals. This is normal, but how they can know whether or not the pharmaceuticals have high quality before taking them. And if it has been taken once and they find that pharmaceuticals are not satisfactory enough, are consumers ready to ignore physician's prescription? We think that the answer is no. Figure 37 shows that physician's guarantee is the most important factor influencing consumers' decision to buy. Hence, people are inclined to buy the pharmaceuticals prescribed by a physician, even if it is more expensive than existing analogues, or is not sold in the nearby pharmacy, or even if they never heard of these pharmaceuticals.

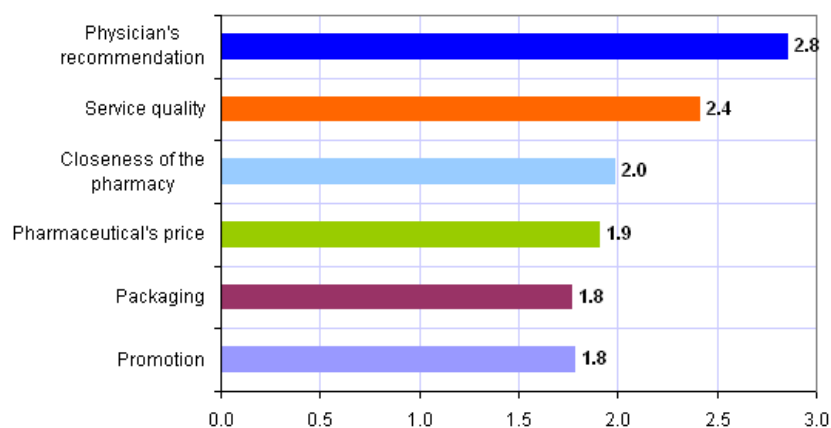


Figure 37 - Factors influencing consumers' decision to buy pharmaceuticals and their importance

Physicians are very well aware of this perception of consumers. And in many cases, they just use this factor. 34% of consumers stated that they had situations when physicians prescribed a medication and “advised” that *“the pharmaceuticals of particular producer or particular origin must be bought”*. 5% of consumers always and 39% - very often face this kind of situations.

But how consumers deal with these situations? As expected, 88% of them **follow physicians' advice**. The rest behaves differently: 5% is getting upset and consults with other physicians, 3% also consults pharmacists and other specialists.

And what consumers do when they do not find the prescribed pharmaceuticals at pharmacy? 83% try to find the pharmaceuticals in other pharmacies, or contact other individuals, even relatives that live abroad. Only 14% of consumers are inclined to substitute the prescribed pharmaceuticals with analogues. This is another fact proving “loyalty” of patients to physicians' advices.

SOME PECULIARITIES OF BEHAVIOR OF CLINICS' REPRESENTATIVES

Clinics, as organizations providing healthcare services, are greatly interested in high quality of services they provide. This quality is ensured by having highly skilled and professional medical workers, by civilized and operative service, as well as by using high quality pharmaceuticals. Hence, this is not surprising, that Procurers of pharmaceuticals at clinics claim that they purchase any pharmaceuticals which have high quality and allow providing high-quality service to clients. It is worth mentioning that regarding this question most trustworthy answers are given by those representatives of clinics which make purchases independently. This refers mostly to private institutions. As concerns state clinics or hospitals, which mainly organize purchase of pharmaceuticals through system of government purchases, according to Armenian producers, here one can meet unfair competition. Due to this, sometimes, government purchases imported and expensive pharmaceuticals, while Armenian producers supply the same pharmaceuticals. Taking into consideration that these imperfections exist in the system, however, one should not make unambiguous

statements regarding this issue. It is worth mentioning that state clinics are also interested in providing high quality services, since their financing is directly related to the number of serviced clients. Indeed, the higher the service quality, the more clients and hence, more funding they will get.

Physicians are also interested in high quality of services provided by them. Based on the results of applied treatment methods and clients' replies physicians accumulated big experience and can make objective inferences about quality of pharmaceuticals. Physicians enjoy complete freedom in prescribing pharmaceuticals. 93% of officials responsible for purchase of pharmaceuticals at clinics state that none of the institution managers interfere the process of fulfilling professional duties by physicians. Rarely the management can give directions or orders to physicians related to use of some pharmaceuticals.

Thus, at clinics physicians have such freedom of actions, which automatically makes them one of the most important players in the process of pharmaceuticals circulation within and out of clinics.

Many participants of the pharmaceuticals market, including producers, are representatives of pharmacies and physicians, confirmed that at clinics cases of "cooperation" between suppliers of pharmaceuticals and physicians is very common. They may cooperate in the following way: physicians are motivated by suppliers of pharmaceuticals to write prescriptions and give advice that contribute or promote sales of the "motivator's" production. Among methods of motivation money awards, gifts and etc. are mentioned. Producers emphasize importers' intensive efforts in these processes. According to experts, physicians are closing deals with suppliers and break several norms of morality, since pharmaceuticals have direct relation to people's health, and therefore, physicians should prescribe the most efficient pharmaceuticals, rather than the ones sales of which make profit to him/her. But what are the counterarguments that physicians bring against these claims? Only 4% of physicians mentioned that they include names of several analogues in the prescription, leaving the choice to patients. 89% of them did not confirm, but also did not reject the fact of above described cooperation with suppliers of pharmaceuticals, and claimed that they prescribe the most efficient and the highest quality products independently from their origin, price and availability of analogues. Physicians do not reject the fact that while writing prescriptions they are directing the patients, i.e. make them to purchase pharmaceuticals of certain origin, and produced by concrete firm. 62% of physicians do this. However, they explain it by the fact that the only purpose is to direct patients towards the highest quality pharmaceuticals. Some physicians wished to keep their answers anonymous and mentioned that not physicians, but the officials responsible of purchase of pharmaceuticals at their institutions are the ones "cooperating" with importers/producers. It is hard to assess how close this statement is to reality, but it is a fact that the "cooperation" with importers/producers is not rejected.

The existence of "Physicians - importers/producers" cooperation was completely rejected by 77% of Procurers at clinics. Instead, the rest or 23% did not exclude the possibility of existence of this relation. 9% from this group confirms its existence and mention that they are aware of this cooperation and think it is normal. Another 9% mentioned that these kinds of cooperation's sometimes exist, but they stop these relations as soon as it reveals, since it is forbidden in their clinics.

Thus, we might conclude that suppliers of pharmaceuticals to clinics created relationships at the level of Procurers at clinics, which allows through "efforts" of the latter promote sales of their own production.

SOME PECULIARITIES OF BEHAVIOR OF PHARMACY REPRESENTATIVES

The analysis of awareness of pharmacy representatives about the Armenian pharmaceuticals (Tables 15 and 16) revealed that pharmacy managers and pharmacists are rather well aware of producers and their production, and even of small producers, a part of which are not even mentioned anywhere in business catalogues. This, indeed, proves high level of activeness of producers within pharmacy networks. This activeness is aimed at their own sales promotion. The survey results reveal that as concern this issue, the most important role belongs to pharmacists, as individuals who directly communicate with clients.

It has been already mentioned that when purchasing pharmaceuticals pharmacies follow the principle: “as many types of pharmaceuticals at the pharmacy as possible”. Hence, pharmacy managers’ task is not to buy products of particular producer, but to buy as many types as possible.

At pharmacies managers are the main decision makers when buying pharmaceuticals (see Figure 38). This is either done by only the manager (22%), or by consulting pharmacists (66%). Figures show the decisive role of pharmacy managers and simultaneously high level of involvement of pharmacists in it.

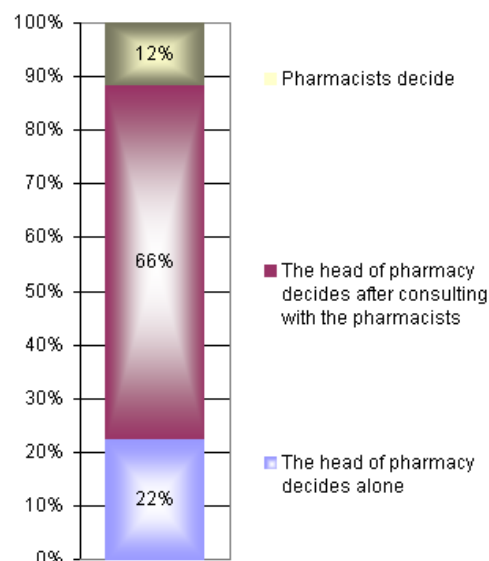


Figure 38 - Decision makers at pharmacies when procuring pharmaceuticals

As concerns factors influencing further realization of pharmaceuticals within pharmacy network, these are mainly “human” and are related to peculiarities of behavior of pharmacy manager and pharmacists. 36% of pharmacy managers interfere with their pharmacists’ work giving commands and directions related to selling some pharmaceuticals. 64% do not “lobby” for any producer or product. Thus, it seems that the role of pharmacists is predominant in selling pharmaceuticals at pharmacies. However, this is not always the case.

It turns out that majority of clients who visit pharmacies with physicians’ prescriptions, have been clearly directed: they were told *to buy pharmaceuticals produced only in a particular country or produced by a particular producer, excluding the possibility of substitution with analogues*. 18% of pharmacists mentioned that all clients that come from physicians’ are clearly directed, and 76% thinks that this phenomenon is observed with every second client. In this case clients are not left any opportunity for choice. Pharmacists do not approve this approach: what if they do not sell the prescribed pharmaceuticals at their pharmacy? In that case they start to convince the client that it is also possible to buy the analogue, but as has been described above, clients are not inclined to divert from physician’s prescription. In such cases the pharmacy loses its clients/buyers.

What is the behavior of the pharmacists when they don’t have the prescribed pharmaceutical at their pharmacy that the client requests? Pharmacists declare that in almost all cases they all suggest the client the analogue pharmaceuticals. 79% of pharmacists suggest all available analogues, another 21% propose only those analogues they want. In such cases the majority of clients usually hesitate for making final decisions. Only 27% of pharmacists told that clients don’t hesitate and purchase analogue pharmaceuticals that they suggest them. The other part of consumers is divided into two parts: the major part of them rejects to substitute the prescribed pharmaceutical with the analogue, and the other part makes positive decision after the strong recommendation of pharmacists. This is a very interesting circumstance that shows that pharmacists are able to influence the consumers and change their opinions. For this purpose they only should bring proper and professional explanations.

There is a completely different picture, when a client goes to pharmacy without consulting a physician or a prescription, or maybe has visited a physician, but is inclined to get an alternative advice, too. According to information disposed by pharmacists, 66% of such clients consult with them when deciding what to buy. 62% follows pharmacists’ advice and buys pharmaceuticals advised by them.

Some physicians *mention in the prescription not only the pharmaceuticals' name (country, producer), but also address of the pharmacy where it needs to be bought*. Such cooperation between physicians and pharmacists theoretically is possible only by intermediation of a third party, which can be importers/producers. But, it is possible only if the pharmacist is somehow interested or motivated. This is where it is important to understand how honest pharmacists are when giving advices to clients: do they offer all the available analogues of the prescribed pharmaceuticals or do they offer the one that they have benefit from? 20% of pharmacists honestly confessed that in some cases they offer only one analogue even if more than one is available. 21% of pharmacists confirmed that there are pharmaceuticals from sales of which they receive dividends as motivation by importers/producers²⁷. The research implementer assumes that these figures are bigger in reality, since there are pharmacists, who "cooperate" with importers/producers, but hide it. 15% of pharmacists who have not been motivated would like to be.

What do pharmacy managers think of such behavior or inclinations of their employees? It has been revealed that 27% of them are aware of their employees being motivated (financially) by importers/producers and *react normally*. 2% of pharmacy managers told that they found out of cases of their employees being motivated by suppliers and stopped it. 14% simply are not aware of existence of such cooperation. 55% of pharmacy managers are sure that at their pharmacies there are no cases of employees being motivated by importers/producers, which does not necessarily mean that this is the case.

Thus, a part of pharmacists, like physicians, are also involved in promotion of pharmaceuticals' realization, acting as interested and non-objective parties.

²⁷ We do not present the names of these pharmaceuticals in this report, since it can break the principle of anonymity.

CONCLUSIONS AND RECOMMENDATIONS

So far, the current report addressed the awareness, perception and behavior of the buyers of Armenian pharmaceuticals. Those features were analyzed from various sides, and that analysis resulted in rational conclusions. Aside from the general conclusions, the analysis of collected information allows us to come up with specific bunch of recommendations of specific measures and activities. The implementation of those activities may significantly contribute in the development of Armenian pharmaceutical industry, as well as the future promotion of local pharmaceuticals.

CONCLUSIONS

► Consumers

1. Research outputs finally answered a question, the response to which we knew before that approximately. This refers to the awareness of end-users/consumers about the Armenian pharmaceuticals. Consumers have very tiny information about local pharmaceuticals. Meantime, this is not the shortcoming of only local pharmaceuticals, but also partially of consumers. This statement is confirmed by the low awareness of consumers about the imported pharmaceuticals, too. The low awareness of consumers about the local pharmaceuticals relies on 3 main factors, which we think will always exist and will play an important role:
 - a. *Pharmaceuticals are not commodity of everyday use.* Pharmaceuticals are “consumed” quite irregularly and the majority of consumers are not able to gain so called “consuming experience” and get relevant basis for the awareness.
 - b. *Pharmaceuticals are not monotonous product.* Consumers meet several thousands of pharmaceuticals in the market and they simply cannot remember even small part of pharmaceuticals physically. Moreover, consumers may even have no chance of knowing/consuming the overwhelming majority of pharmaceuticals in their life.
 - c. Consumers have “*left the right*” of making decisions about consuming specific pharmaceuticals to professionals, i.e. physicians and pharmacists. This is legitimate and we don't have problems with this. But this reality results in a situation where consumers cannot recall even those pharmaceuticals which they used to consume or even use now. In the chain of “physician – prescription - pharmacy” the consumer have undertaken either no or very passive function. The consumer is just a “carrier” of the prescription; someone who is going to purchase those pharmaceuticals which he/she was told about. Besides, it is worth to mention, that very few consumers are able to read the handwritten prescriptions of physicians.
2. Consumers have very scarce opportunities for receiving information about pharmaceuticals. The biggest audience for the information distribution in Armenia has the TV. Meantime, there are strict legislative restrictions for promoting pharmaceuticals, and healthcare programs become the only opportunity for promoting pharmaceuticals, but these programs serve as information source only for Physicians and pharmacists are main sources of information about the pharmaceuticals for consumers. The assessment results revealed that those physicians and pharmacists have certain motivation for providing *directed and incomplete* information. Thus, the consumers in fact have no opportunity to receive complete information about pharmaceuticals. This turns them to be unaware and passive participants of the market.
3. The low awareness level of consumers directly affects their perception of the local pharmaceuticals. It should be noted, that their perception is not well-grounded, regardless it is positive or negative. Even during the 20 minutes lasting interview the many consumers have expressed two opposite opinions about local pharmaceuticals. Their majority declared that they would prefer Armenian analogues of pharmaceuticals, if available; but in 10 minutes only 5% of them have confirmed this position. This is not accidental. Consumers *don't have sufficient objective bases* for substantiating their perception. In order to avoid the further explanation and substantiation of their answers, the consumers' majority don't find

the origin of pharmaceuticals is important. So, it can be summarized that the lack of information. Awareness causes subjective and sometimes wrong perception.

4. In case of consumers we deal with a group of people, which are in complete psychological dependence from physicians. Their *behavior* for consuming pharmaceuticals is sourcing from physicians' advice. Despite "professional advice" (what pharmaceuticals should be used, in what doses, etc.) consumers get other advising, too. In particular, pharmaceuticals of what brand should be purchased, from what pharmacy, etc. The overwhelming majority of consumers are following the advices/orders of physicians. When the consumer goes the pharmacy without initial visit to a physician, he/she is "falling under the control" of the pharmacists. For the sake of truth it should be noted that pharmacists are much more modest and they don't direct clients as intensively as physicians do.
5. Summing up the conclusions regarding to consumers we can justify this end-users of pharmaceuticals as "unaware + *having not well-grounded perception + dependent from others' will*".

► **Clinics**

6. The representatives of clinics (Procurers at clinics and physicians) comprise a part of professional healthcare community, and, legitimately, the awareness, perception, and behavior regarding to local pharmaceuticals are of quite different level. The role of physicians in dissemination of information about local pharmaceuticals, in forming perception and behavior in the market, is dominant. In fact they dictate the rules of the market by their functional role and behavior.
7. In comparison (on contrary) to consumers the awareness of clinics' representatives is much higher. Meantime, it can't be considered as really high, if the awareness rate of the most well-known pharmaceutical producer does not exceed 55%. If the most well-known producers are separated, we can see that the list consists of 3-4 firms with the biggest production volumes. Meantime, the awareness level about the local pharmaceuticals and producers cannot be considered as low, too. There is an explanation for their "low" awareness. In their practice, clinics' representatives (especially physicians) are restricted by their narrow specialization. It hardly could be anticipated that physicians should be very well and completely informed about local pharmaceuticals and producers (who, in their turn, may be specialized in production of this or that line of pharmaceuticals).
8. There is a notable difference between the awareness levels of clinics' representatives in Yerevan and regions. In fact, local pharmaceutical producers have distributed their marketing efforts unequally and have targeted mainly the capital Yerevan. This is normal, since Yerevan is the main center of the provision of healthcare services by both the volume of provided services and number of beds. There is also another interesting finding: relatively big producers paid their efforts mainly at clinics, while smaller producers have concentrated on pharmacies.
9. Both groups of clinics representatives have the same perception towards the local pharmaceuticals: they don't like them and prefer imported medicine. These imported pharmaceuticals prevail in the market during last 15 years. In this period good partnership, trustful and sometimes quite profitable relations have been established between the representatives of clinics and importers. Those strong relations create very serious problems for producers.
10. Imported pharmaceuticals excel local medicine by their wide nomenclature and, as physicians mention by their quality and effectiveness. There are both objective and subjective bases for the last statement. The majority of imported pharmaceuticals are produced in famous American, European, and Russian pharmaceutical firms, who have already applied GMP standards which secures high quality for their products. Meantime, there are many cases, when representatives of clinics prefer imported pharmaceuticals, since "it should be like that". Unfortunately, this statement is confirmed by not only physicians, but by the pharmacists and producers, too. Anyhow, it should be noted, that there are such relations as "importers + procurers at clinics", "importers + physicians". These relations are very difficult to break for local producers. Sometimes it becomes possible only via suggesting alternative "cooperation"; in these cases local producers simply substitute importers.

11. In the pharmaceutical market the prescribing physicians have outstanding role. They can significantly affect the consumption of specific pharmaceuticals; end-users are in almost complete dependence from these physicians. Prescribing physician take the advantage of their role quite often and get personal benefits from the situation. Thus, physicians are usually tend to be subjective and prescribe pharmaceuticals they think right. Some physician even got further; they “cooperate” even with pharmacies. Given the established/existing cooperation network producers sometimes have no other opportunity than suggest the similar/alternative cooperation to physicians and pharmacies.

► **Pharmacies**

12. Representatives of pharmacies comprise the group of respondents most aware about the local pharmaceutical industry. They have 1.5-2 times more information about local pharmaceuticals and producers than representatives of clinics. This higher awareness among the pharmacists is not accidental. Pharmacies should be treated as simple trade outlets that are interested in presenting as wider nomenclature as possible. Pharmacy managers secure the supply of that nomenclature, other employees sell pharmaceuticals. Thus they are permanent very well informed about local pharmaceuticals and their producers.

13. Pharmacists are intensively affected by producers; they provided a huge volume of printed materials to pharmacies. Interestingly, the smaller producers are more active in this area, and, respectively, are more popular. Representatives of pharmacies (especially pharmacists) are the most reading community. The printed professional media is the second source of information about local pharmaceuticals and producers.

14. The perception of pharmacists towards the local pharmaceuticals is somewhat different than the representatives of clinics had. Obviously, the part of pharmacists also has strong preference towards the imported pharmaceuticals, but for bigger part of them (about the 50%) the origin of pharmaceuticals does not matter. Pharmacies are more anxious about the delivery, quality, nomenclature, and price of pharmaceuticals. In fact, pharmacies should be treated as simple trade entities.

15. In the pharmaceuticals' market pharmacies are not limiting themselves with the technical function of retail. Some of pharmacies undertake other functions, too. When we say that *smaller producers actively cooperate with pharmacies*, we don't mean only marketing measures. One fifth of pharmacists declared that *they cooperate with producers for mutual financial benefit*.

► **General**

We have to note, that aside from producers and importers, there are other suppliers of pharmaceuticals in the market. They also dictate rules in the market. Clinics and pharmacies are real intermediaries in the distribution network of pharmaceuticals. They can't be ignored. Maybe this is the reason of the oversupply of pharmaceuticals in such a small market as Armenia. In all this, the “huge army” of end-users is completely outside of the market, and is completely under the control of other market participants.

RECOMMENDATIONS

Based on the analysis and conclusions made above a set of recommendations should be composed and presented. The implementation of those recommendations will allow the enhancement of the competitiveness of Armenian pharmaceuticals in local market, increase of production and consumption volumes domestically. In order to present reasonable and consistent recommendations, it is necessary to make segmentation of market participants to whom the recommendations are directed; to define those goals the implementation of recommendations will allow to achieve.

There are two main types of recommendations presented for increasing the awareness and perception towards the locally produced pharmaceuticals – general (regarding to whole pharmaceuticals' sub-sector)

and segmented (intended for specific segments of consumers). Specific recommendations are presented below:

1. Assessment results show that a range of consistent steps and activities may bring to changes in perception of pharmaceuticals' market-makers. The most desired output is the following justification – pharmaceuticals of Armenian origin are not worse of their foreign analogues. Examples of proposed activities can be:
 - a. organization of exhibitions and fairs,
 - b. implementation of explanatory seminars,
 - c. presentation of new lines of pharmaceuticals,
 - d. TV and radio programs presenting and promoting the whole sub-sector,
 - e. Presentation of the sub-sector achievements in printed media (especially in specialized publications) and presentation of comparisons with international best practices and products.
2. Another question, which has to be addressed, is the prompt/correct segmentation of buyers of locally produced pharmaceuticals. Generally, it is obvious that the awareness of consumers about the locally produced pharmaceuticals is very low. Also, it is reasonable, that the level of awareness will not change substantially even after the intensive promotional campaign, since these consumers are not market-makers. In reality, the market is regulated by the other key participants, mentioned above. In other words, no special promotional activities should be implemented towards the consumers at this stage.
3. Specific measures should be implemented towards the professional community of the pharmaceuticals market in Armenia. That special community consists of physicians, Procurers of pharmaceuticals at clinics, representatives of pharmacies, etc. Each group of market-makers is interested in specific features of proposed pharmaceuticals. In case of physicians the most important factor is the quality of pharmaceuticals (influence efficiency); the Procurers of pharmaceuticals at clinics are mostly interested in prices of pharmaceuticals; pharmacies prefer those suppliers who suggest the wider nomenclature and best conditions for supplies.

In case of correct segmentation, each local producer can develop and apply a set of specific promotional measures for each group of market-makers. In particular, theoretical and practical (clinic or laboratory) seminars may be organized for physicians, during which they will have an opportunity to receive evidences on high quality of locally produced pharmaceuticals. Prices of local pharmaceuticals are more competitive, and there is no need for additional measures. Local producers of pharmaceuticals should develop special policy for pharmacies: they should suggest as wider nomenclature as possible, secure regular supplies, respond to requests of pharmacies as soon as possible, provide technical assistance, supply pharmacies with various accessories (show-stands, boards, leaflets & booklets, plastic bags, etc.), practice provision of commodity credits and delayed payment schemes, etc.

4. Currently, many importers and producers practice various schemes/activities for motivating buyers. As a result, the motivated market-makers successfully direct purchases of consumers. There are two different opinions about the motivation of market-makers. On the one hand this kind of direction of end-users' behavior can be considered as breaking of moral rules, on the other hand there is no law restricting this kind of actions. If the local producers of pharmaceuticals are not going to practice motivation schemes for pharmaceuticals' market-makers in Armenia, they will find themselves in a worse competitive conditions from the very beginning.

In general context it may be understood, that local producer should practice adequate motivation schemes already applied by almost all importers. Meantime, this does not mean that those producers should start bribing market-makers, but must find completely legal way of adequate motivating of market-makers. In this situation an important role may play various unions and associations that advocate interests of local producers of pharmaceuticals.
5. During the survey the representatives of clinics have recommended the implementation of the following major measures (those are prioritized):

- a. active measures should be applied for presenting the local pharmaceuticals and proving the quality to physicians (study tours to factories, seminars, presentations, regular TV programs, conclusions of independent authoritative experts, etc),
 - b. the range of products (nomenclature) should be widened intensively,
 - c. the quality (influence efficiency) of locally produced pharmaceuticals should be increased consistently, high quality inputs must be used in processing cycle, the dose requirements should be kept strictly, validity periods should be kept, etc.,
 - d. the packaging and appearance of locally produced pharmaceuticals should be improved notably,
 - e. The local production of pharmaceuticals should be organized in accordance with GMP standards.
6. During the survey the representatives of pharmacies have recommended the implementation of the following major measures (those are prioritized):
- a. local producers should substantially improve the appearance and packaging of pharmaceuticals they produce,
 - b. the range of products (nomenclature) should be widened intensively,
 - c. the local production of pharmaceuticals should be organized in accordance with GMP standards,
 - d. the local producers should intensify measures of presentation and promotion (seminars, presentations, exhibitions) of locally produced pharmaceuticals,
 - e. the quality of locally produced pharmaceuticals should be increased (influence efficiency should be increased, production conditions should be improved, standards of production should be secured) etc.,
 - f. local producers of pharmaceuticals must intensify their cooperation with physicians and follow their advice,
 - g. Secure price competitiveness for the whole range of produced pharmaceuticals.

Reservation

Recommendations of the representatives of clinics and pharmacies brought in above sections 5 and 6 should not be considered for granted and unambiguously. They have to justify their position and behavior. For this purpose they base their judgments on both objective, and subjective and unreasonable circumstances.

APPENDIX

BREAKDOWN OF CONSUMERS BY RESIDENCE

Location	Number of consumers	Location	Number of consumers
YEREVAN	205	v. Ayntap	2
LORI Marz	55	v. Avshar	1
Vanadzor	37	v. Ararat	1
Stepanavan	6	v. Burastan	2
Tashir	6	v. Getazat	1
Spitak	5	v. Goravan	3
v. Debet	1	v. Dalar	1
KOTAYK Marz	70	v. Dashtaqr	1
Hrazdan	28	v. Hovtashat	1
Abovyan	20	v. Masis	1
Charentsavan	17	v. N. Dvin	2
v. Alapars	1	v. Nshavan	1
v. Solak	1	v. Noyakert	1
v. Fantan	1	v. Nor Kyank	1
v. Myasnikyan	1	v. Jrahovit	1
v. Gegharot	1	v. Taperakan	2
ARARAT Marz	48	SHIRAK Marz	2
Artashat	9	v. Bagratavan	1
Masis	9	v. Marmarashen	1
Ararat	2	TAVUSH Marz	3
Vedi	4	Ijevan	3
Zod	1	NAGORNO KARABAKH	1
v. Azatavan	1	TOTAL	384