



Case Study on Mercury in Skin Lightening Creams in EECCA, in Particular in Armenia, Belarus and Georgia

Conducted by AWHHE

2011

Table of content

1.	Acknowledgment.....	3
2.	Abbreviations.....	4
3.	Executive summery	5
4.	Introduction.....	7
	4.1. Background.....	7
	4.2. Goal of the present study.....	8
	4.3. Methodology.....	9
5.	Situation in project countries differences and similarities.....	10
	5.1. Situation in Armenia.....	10
	5.2. Situation in Belarus.....	14
	5.3. Situation in Georgia.....	17
6.	Mercury contents in analyzed skin lightening and other cosmetic products.....	18
	6.1. In Armenia.....	18
	6.2. In Belarus.....	19
	6.3. In Georgia.....	19
7.	Conclusions and Recommendations.....	22
8.	Annexes.....	24
9.	References.....	35

1. Acknowledgment

Armenian Women for Health and Health Environment NGO (AWHHE) would like to express its gratitude to the European Environmental Bureau “Zero Mercury Campaign” (EEB) and UNEP Regional office – Geneva, with whose support the implementation of this project was made possible. AWHHE is also thankful to the partner organisations Centre for Environmental Solutions (CES) in Belarus and Georgian Environmental and Biological Monitoring Association (GEBMA) in Georgia for fruitful cooperation and kind assistance.

2. Abbreviations

AWHHE	Armenian Women for Health and Health Environment
CES	Centre for Environmental Solutions
CFR	Code of Federal Regulations
EEB	European Environmental Bureau
EEC	European Economic Community
EECCA	Eastern Europe, Caucasus and Central Asia
EU	European Union
FDA	Food and Drug Administration
GEBMA	Georgian Environmental and Biological Monitoring Association
NGO	non-governmental organization
PCP	perfumery and cosmetic products
RA	Republic of Armenia
US	United States
USD	United States dollar
ZMWG	Zero Mercury Working Group

3. Executive Summary

The “Mercury in Skin lightening creams in EECCA – Armenia, Georgia and Belarus” project aimed to explore the levels of mercury content in cosmetic products, particularly, in skin lightening cosmetics in the three countries. The project was implemented by Armenian Women for Health and Healthy Environment NGO (Armenia), Centre for Environmental Solutions (Belarus) and Georgian Environmental and Biological Monitoring Association (Georgia) with support of European Environmental Bureau and UNEP regional Office for Europe.

In all parts of the world people, particularly women, use cosmetic products such as creams and soaps that promise to lighten the complexion of their skin. Although illegal in many countries, mercury is a common pharmacological compound used in skin lightening creams and soaps.

Mercury can accumulate in the body over time, making diseases and disorders potentially linked to one’s exposure, difficult to diagnose. High mercury levels can damage major organs as well as the immune system, especially in the developing foetus. Mercury can cause neurological damage and damage to the kidneys and brain. It can also cause skin rash and vision problems. Mercury poisoning can cause developmental delays in children and the unborn developing foetus¹

Mercury use in skin creams as well as in other consumer products nurtures the trade in mercury across the globe right from production, to the processes and supply of mercury which then ends up in the consumer products. The fact that mercury content in these creams is still present and in high quantities despite the prevailing bans in all the three countries shows that there is much more mercury in circulation than is on record.

Current legislation:

From the study, it was established that mercury use as an ingredient in cosmetic products according to the laws of these countries is banned with only a few exceptions laid down in the annexes of these laws. In Armenia an exception is made for the fat-based liquid beauty soaps where the total mass of heavy metals should not exceed 0,002 percent.

In Belarus the maximum concentration of mercury of not more than 0.007 percent is not allowed except for eye make-up and eye makeup remover cosmetics. The study showed that the existing laws cannot be considered effective in target countries as mercury was found in the most part of the cosmetic products.

Consumer knowledge:

The survey on mercury content in cosmetics was conducted among the consumers of different occupations (merchants, students, housekeepers, academics and random costumers) belonging to different age groups. The results of the survey differ in the three countries.

In Armenia 61,7% of the respondents are well aware that whitening creams may contain mercury. The majority of the customers do not pay attention to the composition of the cosmetic products; at best they check only the expiration date. Regarding the toxicity of mercury, although 95% of them are well-informed about it, they continue to use cosmetic products, not being confident in their composition. It became clear that the majority of the interviewed merchants (88,9%) are not informed that the cosmetics in their store may contain mercury. Only 11,1% of the merchants know about the possible content of mercury in cosmetics.

In Belarus only 10,2% of all respondents are aware that skin lightening creams may contain mercury. Although 89,8% of all respondents are aware of the toxicity of mercury, only 35,5% of them acquaint themselves with the ingredients of the cosmetic product before buying it. The merchants lack knowledge on possible mercury content in the cosmetics sold in their stores.

In Georgia 66,7% of the respondents are not aware that skin lightening creams may contain mercury. 49,2% of the respondents are well-informed about the toxicity of mercury, and 41,3% of the respondents read the information about the ingredients of a product. 75% of the interviewed merchants are not aware that the cosmetics sold in their stores may contain mercury.

¹ Mercury Warning for Skin Lightening Creams. <http://www.newsinferno.com/health-concerns/mercury-warning-for-skin-lightening-creams/>

In all three countries the majority of women do not pay any special attention to the ingredients of a cosmetic product. The consumers should be careful and read the information on the ingredients of the cosmetic products and ask for a certificate before purchasing them.

The analysis:

While doing the sampling of cosmetics for the laboratory analysis the preference was mainly given to skin lightening products. Therefore, 57% of the purchased products were skin bleaching creams and scrubs.

Laboratory analyses were conducted for mercury content in all 100 samples of the cosmetic products purchased in the above-mentioned countries. The analysis showed that out of 100 samples, only 18 of them did not contain mercury. Out of these 18 samples only 6 products were skin whitening creams and scrubs. These products were: "Vitex" CJSC whitening night cream (Belarus), "Vitex" CJSC whitening day cream (Belarus), Perfumery, scrub for face and decollete against black spots and acne (Belarus), Eveline cosmetics Extra soft whitening cream (Poland), Berezoviy cosmetic cream with whitening effect (Russia), and Achroactive Max whitening cream (Bulgaria). Although these products did not have any mercury content, it is not known if they contain other harmful substances as the whitening agents such as hydroquinone.

Mercury content:

Different levels of concentrations of mercury were discovered in the remaining 82 samples. The highest level (1,7ppm) of mercury concentration was found in C.L. set for fading the freckles. This product is made in China and bought in Georgia. High levels of mercury concentration were found also in 29 samples (0,01233 – 0.08860 ppm), including 15 skin lightening products such as: Achromin skin whitening mask, Feromona dermacos spot serum lightening brown spots and discoloration, Himalaya herbals Fairness cream, EVELINE Cosmetics, Vitex CJSC whitening tonal & peeling among others. Out of the mentioned 29 products, 9 were bought in Armenia, 13 in Belarus and 7 in Georgia. Regarding the countries of origin, 10 of these products were produced in Belarus, 2 in Armenia, 2 in Georgia, 2 in Bulgaria, 2 in Israel, 2 in Russia, 2 in Poland, 1 in Lithuanian, 1 in France, 1 in Great Britain, 1 in India, 1 in Italy, 1 in Indonesia, and 1 in China.

Relatively high concentrations (0,00118 – 0,00924 ppm) were found in 40 samples of cosmetic products.

Alternatives:

Although some of the whitening skin care products were mercury free, it is not known if they contain other harmful substances that are still injurious to human health and the environment. Therefore the best alternatives to mercury containing skin lightening products are organic cosmetics because there is a much stricter control over the production of these kinds of products.

Further work:

The results of the study show that the continuation of this project is of great importance. Of utmost importance is presenting these findings to the relevant government representatives and trying to arrive at a good way forward to prohibit further sale of these hazardous products to the unknowing consumers. Also a research on the accessibility of safe alternatives to the consumer including their costs is necessary. This research would also entail finding out if the mercury free products contain any other harmful substances such as hydroquinone.

Awareness and understanding of hazards by the local population is a key to reducing health risks by limiting exposure pathways. Improvement of local practices and consumption patterns can minimize the risk of exposure to/from hazardous materials. To achieve this, a public outreach program should be developed that will inform on risks, possible consequences, treatment options in case of intoxication, and advise on good practices to reduce risk. This can be done through development of posters, brochures and press releases.

In cooperation with state bodies, local NGOs can check the local producers on whether the raw material, finished products meet the safety requirements. The governments in these countries should develop concrete measures to prohibit the sale of hazardous cosmetic products as well as introduce a mandatory certification of the cosmetic products. The cosmetic products should be certified before they reach the consumers.

4. Introduction

4.1 Background

Mercury is a neurotoxin. Studies of methyl mercury poisonings have made it clear that adults, children, and developing foetuses are at risk from ingestion exposure to mercury. When mothers with no symptoms of nervous system damage gave birth to infants with severe disabilities, it became clear that the nervous system of the developing foetus is more vulnerable to methyl mercury than that of an adult.

The most common way people are exposed to any form of mercury is by eating fish containing methyl mercury. Other exposure pathways include breaking products containing elemental mercury and using compounds that contain mercury²

Some skin lightening ingredients work extremely well in the short-term but are dangerous to our well-being and the long-term health of our skin. Mercury is one of them. The use of mercury in skin bleaching creams and soaps goes back to the early 1900s. Before 1970, commercial bleaching creams would normally use ammoniated mercury to produce a lightening effect on the skin. These bleaching creams were aggressively marketed to black people in the US.

In 1976, the use of mercury in cosmetic products was banned in the EU (Directive 76/768/EEC)³, where mercury and its compounds were not allowed to be present as ingredients in cosmetics, except for phenyl mercuric salts for conservation of eye makeup and products for removal of eye make-up in concentration not exceeding 0,007%. The US banned the use of mercury in skin bleaching creams much later in 1990⁴.

The Food and Drug Administration (FDA) banned mercury in most cosmetics in 1974. FDA has determined that mercury compounds may be used in cosmetic products only in trace amounts as a preservative in certain eye - care products when no equally safe and effective alternative is available for use in such products. According to FDA regulations, any cosmetic product that contains more than unavoidable traces of mercury is in violation of the Federal Food, Drug and Cosmetic Act and is subject to legal action. With the exception noted below, FDA has set a maximum allowable limit for mercury in cosmetic products generally of no more than 1 part per million (0.0001 percent) (21 CFR 700.13). Any amount at or above 1 ppm is subject to strict regulatory action⁵.

FDA regulates mercury in cosmetics, food, and dental products. The use of mercury compounds as cosmetic ingredients is limited to eye - care cosmetics at concentrations not exceeding 65 parts per million of mercury calculated as the metal (about 100 ppm or 0.01% phenyl mercuric acetate or nitrate) and provided no other effective and safe preservative is available for use. Mercury compounds are readily absorbed through the skin on topical application and have the tendency to accumulate in the body. They may cause allergic reactions, skin irritation or neurotoxic manifestations⁶.

Mercury and mercurial compounds can be absorbed into the body by inhalation of the vapours, ingestion, or skin contact. As a poison, the damaging effects of mercury are subtle and cumulative, building up over time.

When absorbed, mercury has been discovered in blood, urine, bile, sweat, saliva, milk, and in pus on the surface of ulcers. It has also been discovered in the solids after death, in the brain, the bones, the cellular tissue, in serous membranes, in the parts close to the joints, and in the lungs and liver.

Mercury can be extremely effective in lightening dark spots and stubborn pigmentation but has a high spontaneous remission rate (in a number of people, the original pigmentation returns once the treatment is stopped).

The symptoms of mercury poisoning include emotional disturbances, unsteadiness, inflammation of the mouth and gums, general fatigue, memory loss, forgetfulness and headaches. It may also lead to kidney damage. Excess mercury in the system has been known to cause kidney problems (membranous nephropathy)⁷.

² U. S. Environmental Protection agency: <http://www.epa.gov/hg/effects.htm>

³ <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CONSLEG:1976L0768:20100301:en:PDF>

⁴ [Skin Whitening and Skin Lightening Resources: http://www.whiterskin.info/mercury-is-a-dangerous-skin-lightening-ingredient/](http://www.whiterskin.info/mercury-is-a-dangerous-skin-lightening-ingredient/)

⁵ Mercury poisoning: http://en.wikipedia.org/wiki/Mercury_poisoning#Cosmetics

⁶ Regulations on the use of toxins in cosmetics: <http://www.health-report.co.uk/cosmetic-regulations.htm>

⁷ Skin Whitening and Skin Lightening Resources: <http://www.whiterskin.info/mercury-is-a-dangerous-skin-lightening-ingredient/>

Long term usage of cosmetics that contain mercury will deliver common symptoms such as *peripheral neuropathy* or the feeling of itching, burning, or pain on your skin. It can also cause *skin discoloration*; swelling and dead skin peels off in layers. Mercury will block the degradation pathway of the catecholamine, thus the epinephrine excess will cause hyperhidrosis or we can call it as profuse sweating. When the effects get worse, acceleration of the heart beat and blood pressure can be experienced. Using eye makeup that contains mercury is unlikely to cause immediate health problems, but still, mercury accumulates in the body. It gets more dangerous if a woman who is a regular user of cosmetic that contains mercury is pregnant, because it can retard brain development in children and fetuses⁸.

Skin contact with mercury compounds can lead to irritation, including patches of inflammation and the appearance of tiny bumps close together. These bumps may burst and discharge matter, which later crusts over leading to soreness and discomfort.

Most skin lightening creams containing mercury are either white or yellow in colour.

Unscrupulous manufacturers can also easily change their product names and packaging to evade the authorities. The packaging for skin whitening creams containing mercury would also usually not list mercury as one of its ingredients, although sometimes calomel is listed. Calomel is mercurial chloride, a type of mercury⁹.

Minnesota apparently is the first state in the US to ban intentionally added mercury in cosmetics, giving it a tougher standard than the federal government.

Retailers who knowingly sell mercury-containing cosmetics in Minnesota could face fines of as much as \$700. Penalties could reach \$10,000 for manufacturers who fail to disclose mercury on product labels, according to the Minnesota Pollution Control Agency. Federal law allows eye products to contain up to 65 parts per million of mercury¹⁰.

Because mercury is toxic, skin lightening creams, soaps and other cosmetics that have mercury in them are prohibited for sale or distribution in Illinois under a state law¹¹.

Skin-bleaching creams, which people use not only to lighten their skin, but also to fade age spots and freckles, often have some less-than-ideal ingredients. Mercury is dangerous, which shouldn't be in face cream at all.

In an investigative report, The Chicago Tribune sent 50 bottles of skin-bleaching face creams purchased in Chicago stores to a lab for testing. Five of the jars had more than 6,000 parts per million of mercury, which is enough to cause kidney or neurological damage over time. The FDA banned mercury from skin-lightening products in 1990, but it tests products frequently¹².

4.2. Goal of the present study

While many skin-lightening products are safe, myriad products on the market are unlabeled, mislabelled, counterfeit, or not labelled in a language the user can read. Therefore, consumers cannot know what is actually in the product they are using.

This project aimed to try to ascertain the existence of mercury in cosmetics products in a number of countries within the EECCA region with the support of representative NGOs in these countries to carry out:

- Desk study and research on existing studies/papers concerning mercury in cosmetics, for EECCA and other regions.
- Desk study and research on developments of EU, some EECCA or other countries which have implemented bans on mercury containing cosmetics.
- Interviews with several retail shops and customers (mainly women)
- Assessments of the ingredients present in these products based on what is indicated on their labels
- Sampling of certain skin care products that are suspected to contain mercury

⁸ [The Danger Of Mercury In Beauty Products: http://meliatop.com/the-danger-of-mercury-in-beauty-products.html](http://meliatop.com/the-danger-of-mercury-in-beauty-products.html)

⁹ [Skin Whitening and Skin Lightening Resources: http://www.whiterskin.info/mercury-is-a-dangerous-skin-lightening-ingredient/](http://www.whiterskin.info/mercury-is-a-dangerous-skin-lightening-ingredient/)

¹⁰ FOX News: <http://www.foxnews.com/story/0,2933,316811,00.html>

¹¹ Skin Lightening Products: <http://www.epa.state.il.us/mercury/mercury-cosmetics.pdf>

¹² BLISSTREE: <http://blisstree.com/look/beauty-products-mercury-found-in-skin-bleaching-creams/>

- Testing some sampled product for mercury
- Compiling a report on the situation

The project objective was to carry out a survey to establish the status of mercury use in cosmetics within the EECCA. Specific objectives include:

- To look at the existing policies /scientific history in the EU and potentially other countries and what led to the banning of mercury in skin lightening creams – in order to give recommendations for other regions on the basis of that.
- To review relevant studies in the EU, EECCA and maybe other countries.
- To see what laws in EECCA countries are related to that , if any
- To see if there are known local EECCA producers of creams which may contain mercury
- To see if/how creams are mainly imported in EECCA countries and, if possible, to determine from where? (look at some trade issues)
- To discuss alternatives that should be considered
- Examine the level of knowledge and awareness of consumers/sellers on mercury in general and mercury in cosmetic products.
- To buy and test a number of creams to the extent funds allow. However, if funds are not sufficient and the study establishes that indeed there are mercury containing cosmetic skin creams in the market, then a plausible recommendation would be that such an analysis of samples is carried out in future when funds become available.

This study was designed to collect and present information on situation regarding mercury containing and mercury free cosmetics in markets of 3 participating countries.

4.3 Methodology

The European Environmental Bureau ‘Zero Mercury Campaign’, in support of the global objectives of the Zero Mercury Working Group (ZMWG), was taking the lead through engaging ZMWG members based in EECCA countries to undertake the baseline study. The specific NGOs were involved in carrying out of the survey include: Armenian Women for Health and Health Environment NGO based in Armenia; Centre for Environmental Solutions (CES) – Belarus and Georgian Environmental and Biological Monitoring Association – Georgia.

The three organizations carried out the activities to ascertain the extent to which skin lightening creams are in use in their countries and the region as a whole. AWHHE was coordinating the work for 3 countries. In order to work in the same way the documentation for survey and sampling of cosmetic products and requests for needed information was developed by AWHHE, such as:

- Questionnaire on mercury in cosmetics
- Guide on survey on detection of mercury in cosmetic products
- The pattern (in Excel sheet) of inserting the answers
- Sampling protocol on detection of mercury in cosmetic products
- Sample description form & pattern of sample description form
- Questions for requested information

Data collection was organised by the local NGOs, through sending official letters to the ministries, Chamber of Commerce and Industry, the State Revenue Committees, the National Institutes of Standards, the Customers Services and other authorities.

The survey was organized according to the questionnaire and accompanying documents. The results were inserted into the excel sheet and sent to AWHHE who further finalized the analyses.

The local NGOs collected samples of the skin lightening creams and other cosmetic products and sent them to Armenia with their sample description forms. The Armenian partner organisation took the samples to a qualified laboratory for making an analysis for mercury content.

5. Situation in project countries: differences and similarities

According to the “Hygienic Requirements to Manufacture and Safety of Perfume and Cosmetic Products” In Armenia mercury must not be contained in cosmetic products. Mercury and its compounds are included in the list of those substances that are not permitted to be used as ingredients in the perfume and beauty product (Annex 5), with the exception of the cases laid down in the 1st part of the Annex 4. This refers to the fat-based liquid beauty soaps where the total mass of heavy metals should not exceed 0,002 percent.

According to the Annex 4.2 to Section 4 of Chapter Two of the Uniform sanitary-epidemiological and hygienic requirements of Belarus for the goods subject to sanitary-epidemiological supervision, mercury and mercury compounds are prohibited for use as ingredients in perfumes and cosmetics and oral hygiene products.

But, according to the Annex 4.5 to the same section, the mercury compound is allowed to be used as a preservative (from the list of authorized for use as ingredients in perfumes and cosmetics and oral hygiene). The maximum concentration of mercury of not more than 0.007 percent is not allowed except for eye make-up and eye makeup remover cosmetics.

In 2001, Georgia banned mercury and its compounds in manufacturing of oral hygienic products, cosmetics and perfumery (Sanitary Rules and Norms, 1.2.000-00, published in the Juridical Journal “Macne”, #90, 24.08, 2001)

Thus, the use of mercury as an ingredient of a cosmetic product is banned in all 3 countries. There are also some exceptions.

5.1 Situation in Armenia

In Armenia certification of cosmetic products is not mandatory. The Market and Consumers Advocacy State Inspectorate of the RA Ministry of Economy has no resources for testing of cosmetic products. In the Republic of Armenia the control over the manufacture, importation and exportation of cosmetic products is exercised in accordance with the Sanitary Regulations and Norms No 2-III-8.2 “Hygienic Requirements to Manufacture and Safety of Perfume and Cosmetic Products” approved by the Order No1109-N of the Minister of Health of the Republic of Armenia issued on the 24th of November, 2005.

These sanitary regulations and norms set out the hygienic requirements to the manufacture, storage and transportation of the perfume and cosmetic products, as well as the requirements to the safety of these products: the toxicological, bacteriological, clinical and laboratory, immuno- cyto-chemical (Annexes 1,2,3), sensitivity determination and physicochemical (Annex 4) indices and the list of those substances that are not permitted to be used as ingredients in the perfume and cosmetic product.

Irrespective of the type of ownership, these sanitary regulations are applied to all the organizations engaged in manufacture of perfume and cosmetic products. The safety of the product is certified on the basis of the positive hygienic expert conclusion issued by the Hygiene and Anti-Epidemic State Inspection bodies and organizations of the RA Ministry of Health. In case there is a risk to human health because of harmful effect of the product the application of that product is temporarily banned by the Hygiene and Anti-Epidemic State Inspectorate unless the manufacturer of the given product submits a scientific and experimental substantiation.

The sanitary regulations set out the hygienic requirements to: the space, micro climate and the lightening of the workshops and premises of the manufacturing enterprise; water supply and sanitation; the structure of the industrial facilities, technological processes and equipments; raw material, substances, reagents, the packaging and the labelling of the finished product; store rooms; utility rooms; working conditions and the personal care.

The sanitary regulations also set out the sampling procedure, the storage and transportation conditions, as well as the means for fighting against rodents and insects.

Mercury and its compounds are included in the list of those substances that are not permitted to be used as ingredients in the perfume and beauty product (Annex 5), with the exception of the cases laid down in the 1st part of the Annex 4. This refers to the fat-based liquid beauty soap where the total mass of heavy metals should not exceed 0,002 percent.

According to the RA Law “On Sanitary-Epidemic Security Provision of the Population” (adopted on 12.12.1992) the use of perfume and cosmetic products is permitted provided that the positive conclusion of the appropriate authority of the State Hygiene and Anti-Epidemic Service is made available.

This law defines the legal, economic and organizational bases for sanitary-epidemic security provision of the population of the Republic of Armenia, as well as the warrants anticipated by the state and excluding the impact of harmful and dangerous environment factors on human health and providing beneficial conditions for vital capacity of a human being and the future generations.

Article 4. Sanitary regulations and hygienic norms

The sanitary regulations and hygienic norms define the criteria of the environmental security and the requirements to the provision of favourable conditions for human vital activity.

The observance of sanitary regulations is mandatory for all state bodies, manufactures, establishments, organizations, as well as for the officials and citizens.

The procedure of development, approval, revision and enforcement of the sanitary regulations is established by the government of the Republic of Armenia.

The sanitary regulations are published and freely disseminated among the population. Below are mentioned the chapters and articles of the law, which are somehow connected with cosmetic products.

Chapter 4. The General Requirements to Sanitary-Epidemic Security Provision of the Population of the Republic of Armenia

Article 14. The general requirements to sanitary-epidemic security provision of the population of the Republic of Armenia in the field of use of chemical substances and biological means

The use of vectors' control means, mineral fertilizers, plants growth regulators and chemical and biological control means of plant protection, polymeric substances and plastics, perfume and cosmetic products, other chemical substances and biological means, medical immuno-biological preparations is permitted provided that the positive conclusion of the appropriate authority of the Hygiene and Anti-Epidemic State Service is made available.

One of the future laws regulating this field is the Law of the Republic of Armenia “On Ensuring the Public Health Safety” which is still in the stage of development.

Chapter 6. Organization and Implementation of Exclusion of Harmful and Dangerous Environmental Impact on Human Health in Armenia (Environmental Hygiene)

Article 41. The public health safety requirements to perfume and cosmetic products:

1. The perfume and cosmetic product which is manufactured in the Republic of Armenia, as well is imported or exported should have such composition and packaging which must be safe for health when applied in the designated form. The perfume and cosmetic product is permitted to be put into production and used provided that the positive conclusion of the authorized body in the field of public health security is made available in the result of the state expertise. This part of the examination procedure must be approved by the government of the Republic of Armenia.

2. In case the requirements set out by this Article are violated, by the decision of the authorized body of the public health security sector there may be terminated by the organizations and private entrepreneurs the realization and the use of perfume and cosmetic products, as well there may be imposed other sanctions stipulated by this law and other laws [12].

Data about the external trade of cosmetic products of the Republic of Armenia are taken from the official webpage of the National Statistical Service of the Republic of Armenia. Customs declarations and statistical surveys data served as a basis for information [13].

The below-mentioned Table 1 presents the volumes of external trade for the period of 2006-2009. It becomes obvious from this table that the exports in 2007 increased by 17% and in 2008 by 7,3% as compared with that of in 2006. In 2008 the exports decreased by 8,3% and in 2009 amounted to 38,4% in comparison with the year 2007. As compared with the year 2006 the exports decreased by 27,9%. The situation is the same in the field of importation. In 2007 the imports increased by 49% against 2006, and the increase in imports in 2008 amounted to 35,4% against the year of 2007. In 2009 the imports fell by 25% against 2008.

Table 1.

External Trade of the Republic of Armenia by Commodity Groups for 2006-2009 (thousand US \$)

Code	Group	EXPORT				IMPORT			
		2006	2007	2008	2009	2006	2007	2008	2009
	Total	985108.2	1152300.8	1057161.4	710157.5	2191612.6	3267788.0	4426129.3	3321133.9
33	Essential oils and resinoids; perfumery, cosmetics	117.2	268.7	49.0	120.6	19385.8	28884.2	45858.2	40938.0
34	Soap, organic surface-active agents, washing	232.8	224.5	514.5	349.8	14675.4	22261.2	34543.7	33574.6

According to the external trade statistic data, 527054.3 tons of commodities were exported (worth of 710,157.5 thousand USD), out of which 572.2 tons of goods were cosmetic products of the Commodity Groups 33 and 34, and the total price of these goods made 470.4 thousand USD. In the same year 3,162,083,0 tons of commodities were imported (3,321,133.9 thousand USD), out of which 22,353.7 tons (74512,6 USD) were cosmetic products of the Commodity Groups 33 and 34. Thus, one can drive to the conclusion that the volumes of imports exceeded the volumes of exports. This regularity is to be observed in all the sectors.

In the Table 2 are given the data on exports by countries. It is obvious from this table that Armenia exported greater number of the perfume and cosmetic products to Georgia, Syrian Arab Republic, Slovakia and Ukraine.

Table 2

Exports of the Republic of Armenia by Separate Countries by Commodity Groups for 2009 (thousand US \$)

33. Essential oils and resinoids; perfumery, cosmetics			
Country	Country code	Export	
		volume, ton	thousand US \$
Georgia	268	8.8	59.0
Syrian Arab Republic	760	0.6	39.6
Slovakia	703	0.0	16.4
Ukraine	804	0.1	3.6
Islamic Republic of Iran	364	0.2	1.1
United Arab Emirates	784	0.0	0.5
Unknown country	0	0.0	0.4
Germany	280	0.0	0.1
Total		9.8	120.6
34. Soap, organic surface- active agents, washing			
Georgia	268	540.7	333.0
Ukraine	804	21.6	15.7
Syrian Arab Republic	760	0.1	0.7
Belgium	56	0.0	0.3
Spain	724	0.0	0.1
Unknown country	0	0.0	0.1
Total		562.4	349.8

The data relating to imports are given in the Annexes. In the table presented in the Annexes are listed those countries from where the cosmetics were imported and the volumes of the imported cosmetics are presented in descending order up to 10 tons and more.

According to these data the biggest volumes of perfume and cosmetic products of the Commodity Group 33 were imported from Russia, Bulgaria and China. Such countries like Turkey, Islamic Republic of Iran and Russia are considered to be the biggest exporting countries for the Commodity Group 34 related products.

Armenia has commercial relationships with 141 countries, of which with 63 countries Armenia has a trade relation for the Group 33 related products and with 53 countries for the Group 34 related products.

In Table 4 the trade in cosmetic products is presented by individual subgroups. It becomes clear from the table that in case of both exports and imports the greatest volumes of cosmetics fall on soaps while the hair preparations are in the second place. But from the point of view of costs hair preparations occupy the first place while the beauty, make-up and skin care preparations come the second.

Table 4.

External Trade of the Republic of Armenia by Commodity subgroups for 2009

Code	SUBGROUP NAME	EXPORT		IMPORT	
		volume, ton	thous. US \$	volume, ton	thous. US \$
3301	Essential oils, resinoids and terpenic by-products	0.0	16.4	1.4	20.1
3302	Mixed odoriferous substances for industrial use	0	0	104.3	1206.5
3303	Perfumes and toilet waters	0.3	32.0	78.7	7949.6
3304	Beauty, make-up and skin care preparations	1.7	35.4	453.0	10091.5
3305	Hair preparations	7.4	28.7	2236.2	13135.8
3306	Oral and dental hygiene preparations	0.0	1.3	469.3	2986.0
3307	Shaving and toilet preparations, deodorizers	0.4	6.8	810.4	5548.4
3401	Soaps	23.1	18.7	3492.1	8167.9

In answer to the official letter of AWHHE the State Revenue Committee of the Government of the RA replied that they were not able to provide information regarding the composition of the cosmetics imported because the customs authorities carry out the classification of the products through referring them to the Commodity Groups provided by the External Economic Activity List. The state registration of the cosmetic products is performed by the National Institute of Standards of the Ministry of Economy. The mentioned Institute also carries out the laboratory testing of the products, including the analyses for mercury content in cosmetic products. According to the Head of the laboratory of the Institute so far mercury has not been found in any of the tested cosmetic products. The terms of reference of the National Institute of Standards does not cover the control over the import and export of cosmetic products, therefore, they do not possess information on cases of prohibition of import or sale of cosmetics.

There are 31 registered cosmetic producing companies in Armenia, but in the market it is possible to find skin lightening products only under the trade name "Bio Nica".

5.2. Situation in Belarus

In Belarus, the control over exports and imports, as well as the manufacture of cosmetics is carried out in the form of mandatory state hygienic registration. Cosmetics and perfumes in Belarus are goods subject to state hygienic registration. The purpose of registration is the establishment of security. The registration is performed by the sanitary-epidemiological service whenever the manufacturer or importer applies to them. This service issues a certificate of the state hygienic registration. Without specifying the identity of the state hygienic registration the retail network in the country has no right to take the goods from the manufacturer or importer.

At the present time, due to the fact that since July 6, 2010 a single customs territory has been formed between Belarus, Kazakhstan and Russia, the Customs Code of the Customs Union entered into force in the relations of the three countries. Imports and exports of goods are regulated by single sanitary-epidemiological and hygienic requirements for the goods subject to sanitary surveillance. Basic requirements for cosmetic products are set out in the Chapter II, Section 4, and Subsection 1 – Requirements for Cosmetic Products. According to them, the safety of perfumery and cosmetic products (PCP) is ensured by a set of requirements to: raw materials; organoleptic quality, content of toxic elements; microbiological safety; toxicological safety; clinical and laboratory parameters; packaging and labeling, conditions of storage and transportation.

The content of toxic elements in the raw materials of natural vegetation and natural mineral origin should not exceed: arsenic - 5,0 mg/kg; mercury – 1,0 mg/kg; lead – 5,0 mg/kg, based on the maximum recommended concentration in a finished product.

Requirements to toxicological safety

Whenever a PCP is handed in for a toxicological-hygienic examination of the safety the assessment is carried out in several stages and begins with a review of documentation: an analysis of recipes (ingredient composition) of products for assessing the availability of toxicological characteristics and severity of each ingredient, especially the new, not previously used, their content in a concentration not exceeding the maximum allowable; destination estimate of the products, methods and frequency of application, the total area of contact with skin and/or mucous membranes, duration of exposure, age composition of the consumers.

Based on comprehensive analysis one of the proposed methods of toxicological evaluation is selected: either on laboratory animals or on alternative biological models with methods of *in vitro* or by analyzing the recipe of the PCP.

Based on the analysis of the recipe of a PCP and formulation of PCP toxicological characteristics of ingredients an expert conclusion is issued without conducting experiments for the following types of a product: hair dyes, the means for a perm, fixing and straightening of hair, discoloring agents, peelings, liquids and means for removing the varnish and its dilutions. An expert conclusion should include comprehensive data on the toxicological safety of the PCP, based on careful consideration of each ingredient and analysis of all available information.

Clinical and laboratory tests are conducted after obtaining positive results of the organoleptic, physical and chemical, microbiological and toxicological studies.

According to the Annex 4.2 to Section 4 of Chapter Two of the Uniform Sanitary-Epidemiological and Hygienic Requirements for the goods subject to sanitary-epidemiological supervision mercury and mercury compounds are prohibited for use as ingredients in perfumes and cosmetics and oral hygiene products. 221. Mercury and its compounds, except those special cases laid down in Annex 5

But, according to the Annex 4.5 to the same section, the mercury compound is allowed to be used as a preservative (from the list of authorized for use as ingredients in perfumes and cosmetics and oral hygiene).

Reference number of the EU directive on the cosmetics-perfumery products	Substance (name of the substance in accordance with the international nomenclature of cosmetic ingredients INCI).	Maximum allowable concentration	Limitations and requirements	Terms of use and warning information which must be communicated to the consumer

1	2	3	4	5
16	(Thiomersal (INN) (ethylmercurthiosalicylate)	0,007 % of Hg. In a mixture of mercury-containing components, as allowed by this law, the maximum concentration of mercury not more than 0.007 %	only for eye make-up and eye makeup remover cosmetics	Contains thiomersal

The question regarding the ban of import of cosmetics due to detection of mercury in their content is not yet cleared up.

According to official figures, during the last 2 years the abuse of mercury in the samples of the analyzed cosmetics has not been observed.

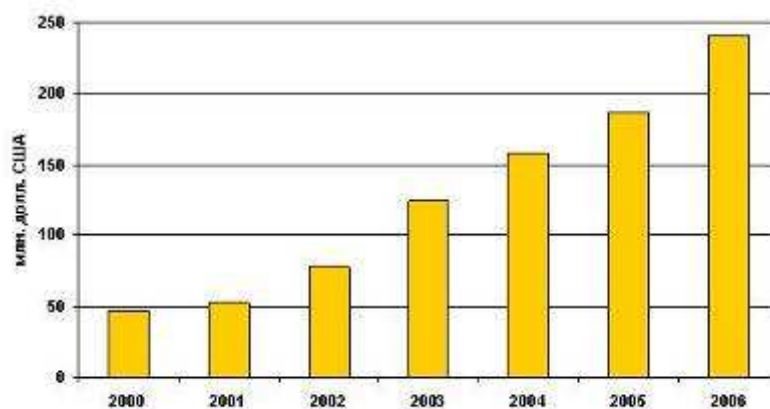
Unofficial reports, articles from the "living magazine", written by a former employee of perfume and cosmetic industry cited: "If I've heard about the excess of microbiological indicators, though at the time when I worked with this business in the enterprise the situation was good, then excess of content of toxic elements I have not encountered even by hearsay. This means that the drinking water (which is used for making cosmetics) and the main raw material as well did not contain toxic elements¹³."

The market of cosmetics in the Republic of Belarus

Since 2000 to 2006 the production of cosmetics in Belarus has increased significantly (about 5 times). Market for cosmetics production is mainly represented by small and medium-sized businesses. In this area more than 100 enterprises are registered, of which only in Minsk about 20 enterprises are active.

Diagram 1.

Volumes of production of perfumery-cosmetics in Belarus (million USD)



Note: Assessment of production of perfumery and cosmetics industry is made based on the indicators of shipment of products to the domestic market and exports of some of the largest enterprises of the industry.

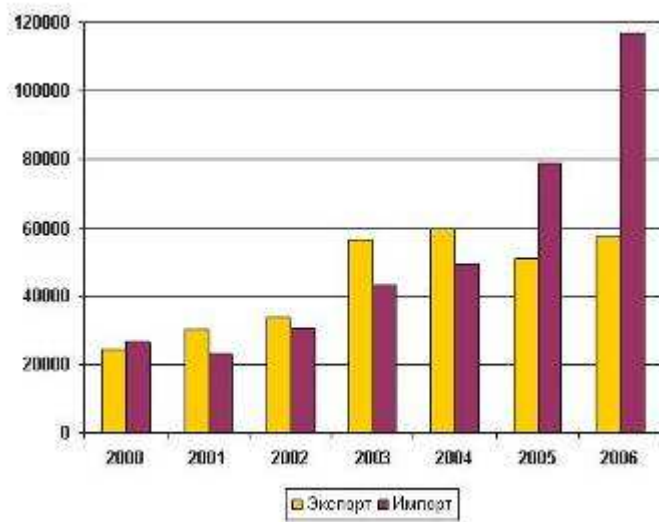
Belarusian manufacturers of cosmetics and perfumery, not only satisfy the demand of the domestic market, but actively deliver the goods for export. The products are mainly sold in Russia. According to an experts' opinion, the Russian cosmetics market is estimated at 7-8 billion dollars, and by 2010 is expected to increase to 10-12 billion. This is more than the total Russian market for tractors and trucks.

¹³ Live Journal. <http://superhimik.livejournal.com/2009/12/29/>

Between 2000 and 2006, the largest volume of export was reported in 2004, when it was exported perfumes and cosmetics worth about \$ 60 million, while imports in the same year amounted to 50 million (Fig. 3). Since 2004, exports have fallen, but imports have grown from 50 million to \$ 117 million.

Diagram 2.

Export and import of perfumery-cosmetics in Belarus in 2000-2006 (thousand USD)



Source: State Customs Committee of the Republic of Belarus
 Source: "National Center of Marketing and Market Prices"[10].

Almost the entire volume of production of the Belarusian creams falls on Minsk. But in 2006 the volume of production decreased by 0,6% as compared with the previous year and amounted to 41.3 million units. At the same time in 2007, the rate of decline in output increased to 7.5%. Moreover, the results of January-September 2008 output of the products in question amounted to only 21.5 million units.

On a much smaller scale the production of creams was carried out in the Minsk region. In 2006, the region produced 521 thousand units of the products in question, that is 18,1% higher as compared with the previous year. At the same time in 2007, production of creams in the Minsk region decreased by 0.8%, and in January-September 2008 no perfumery-cosmetics have been produced [11].

Greater market share of production of perfumes and cosmetics falls on the Belarusian partner companies "Belita" and "Vitex". Cosmetics of these firms have been sold in the stores of the republic since 1989. Leading manufacturers of this industry also include: firm "Markell" which has been in the market since 1993, and Perfumery and Cosmetics Factory "Modum - our cosmetics". The latter produces a wide range of high quality cosmetics (creams, balms, shampoos, gift sets, tooth-paste, etc.). The company has been active in the cosmetic market for over 12 years.

"Martha" Ltd has been in the market since 1996. With its own manufacturing base and having a great scientific potential, the company produces today more than 150 innovative products for skin care and hair under the trademark "Martha", in conformity with world standards. Perfumery and Cosmetics Research and Production center "Floralis" was established in 1998. Several years later were established subsidiary companies "Exta" Ltd (2003), which specializes in the production of phyto-and parapharmaceutical cosmetics. Enterprise "Exclusive cosmetic" was founded in Belarus in 2001, specializes in the manufacture of cosmetic products.

"Belorek" - one of the largest and most stable trading enterprises in the Republic of Belarus, manufactures products under the trademark "Iris". The company "BelKosmex" first introduced to market its products to care for face, body and hair in 1995.

Country	Major brands of cosmetics in Georgia
Bulgarian:	Refan, Vesna, Ventoni Cosmetics
Belgium:	Lamis
French:	La-Roche, L'Oreal, Maybelline, Gerlen, Vichy, Saint Laurent, Rocher, Van Cleef and Arpels, Yves Saint Laurent, Roc, Chanel etc.
Germany:	Nivea, Dr. Scheller Cosmetics
Indian:	Lakmé, ColorBar cosmetics
Italian:	Kepero S.p.a.
Poland:	Bela Jardin, Gaia
Russian:	Kalina: "Chistaya Linia", "Sto Receptov Krasoti", Svoboda
Swedish:	Oriflame

5.3 Situation in Georgia

In 2001, Georgia banned mercury and its compounds in manufacturing of

oral hygienic products, cosmetics and perfumery (Sanitary Rules and Norms, 1.2.000-00, published in the Juridical Journal "Macne", #90, 24.08, 2001). Although, due to the lack of regulatory structure mercury is used in homemade skin lightening creams and sometimes, such creams are on sale in the black market. All cosmetics in Georgia are not subject to obligatory testing.

The majority of cosmetics sold in Georgia are imported from Bulgaria, France, Germany, Israel, Italy, Japan, Poland, Russia, Switzerland, Spain, Sweden, the Czech Republic, Ukraine and the USA. Many people actually prefer buying low price everyday products, or making themselves skin care creams. The number of different types of allergies among consumers has significantly increased due to low quality cosmetic products available on the market. There is a

lack of any kind of control on cosmetics. Many famous brand cosmetics are fake products and consumers are mistaken while buying them. Perfumery, make up and skin care products are the most common for a grey market. To suppress grey market the foreign companies and the local importers create their own systems of distribution involving large wholesalers with well-formed marketing channels. Major distributors of cosmetics in Georgia are: Gelava Trading Company, "Farmacy" Ltd, Cosmetic firm "Faberlic", Cosmetic firm "AVON", "Oriflame Georgia" Ltd, Perfume shops network "Vulevu", Shiseido cosmetics products, and etc.



Turkey:	Nolen & Alix
Ukraine:	Krymskaya Rosa, Alyie Parusa
USA:	Revlon, Avon Products, Elizabeth Arden, Estee Lauder Revlon, Helena Rubinstain

6. Mercury contents in analyzed skin lightening and other cosmetic products

AWHHE preliminarily developed a sampling protocol on detection of mercury in cosmetic products (see in Annexes). All the requested cosmetic products were bought by the partner organizations in Georgia and Belarus in accordance with the protocol. The cosmetic products were sent to Armenia with their own containers (flasks, bottles, tubes, etc.). AWHHE also created a sample description form, which was further filled in for each cosmetic product.

6.1 In Armenia

In total 49 cosmetic products were bought by AWHHE. The total number of the samples amounted to 52 as some of these products consisted of 2 parts. The purchased products included 27 skin lightening creams, scrubs and lotions, 8 tonal creams and powders, 3 shampoos, 3 tooth-pastes, 2 eye-mascaras, 2 hair dyes, 2 anti-age creams, 2 shadows, 1 soap, 1 lipstick and 1 nourishing cream.

As seen from the Diagram 3 the purchased cosmetics were manufactured in different countries. Information about the origin of the product was lacking on the packages of 3 samples. 22% of all cosmetic products were made in Poland, 14% - in Armenia and 10% were produced in France. There was no information on the packages of 10 cosmetic products on the terms of use. The useful time of Head & Shoulders shampoo at the moment of buying was already expired.

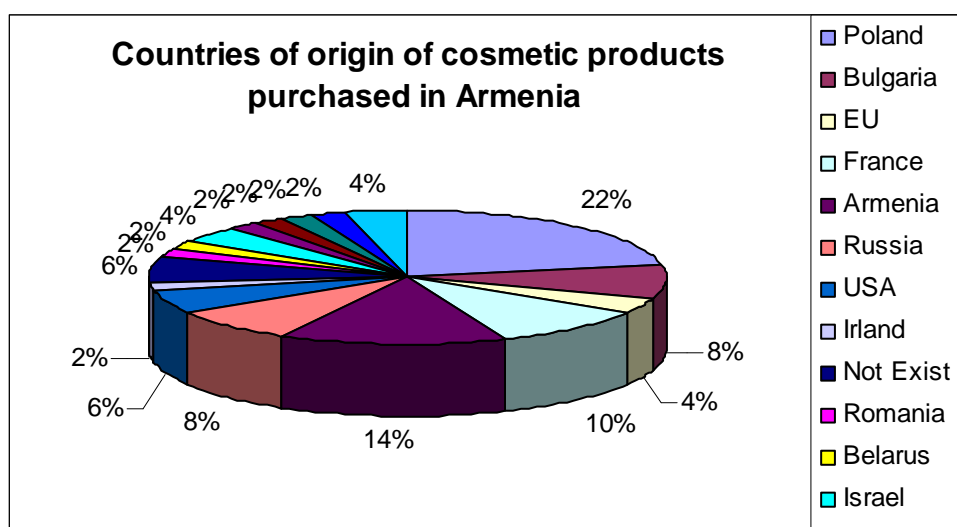


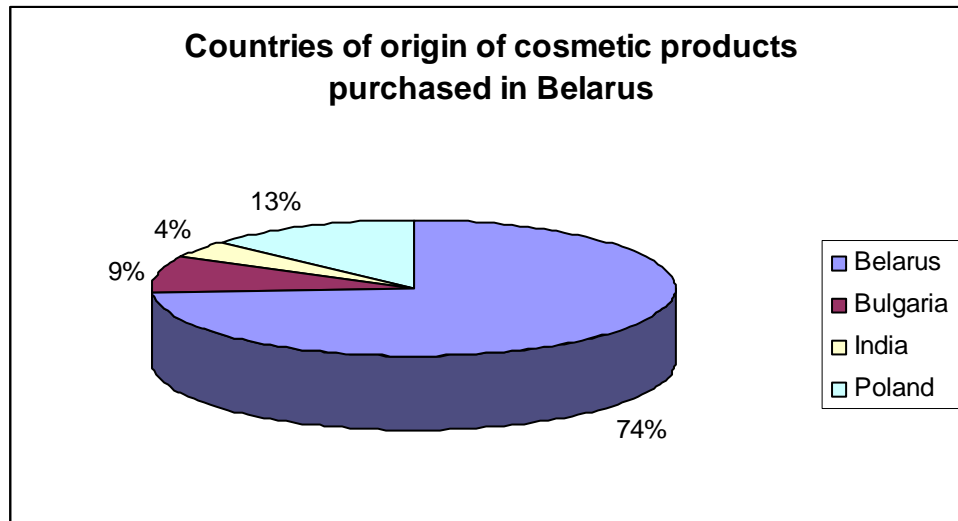
Diagram 3

6.2 In Belarus

24 cosmetic products were purchased by the partner organization in Belarus and sent to Armenia.

The cosmetic means included 16 whitening creams, lotions and scrubs, 3 eye mascaras, 1 shadow, 1 tooth-paste, 1 rouge and 1 tonal cream. As seen from the Diagram 4 74% of all cosmetics were of home production, 13% were made in Poland and 9% were produced in Bulgaria. The expiry date was missing on one of the packages of the cosmetic products. The useful time of the whitening mask-cocktail with rejuvenating effect under the trade name Exclusive Cosmetics at the moment of buying was already expired.

Diagram 4.



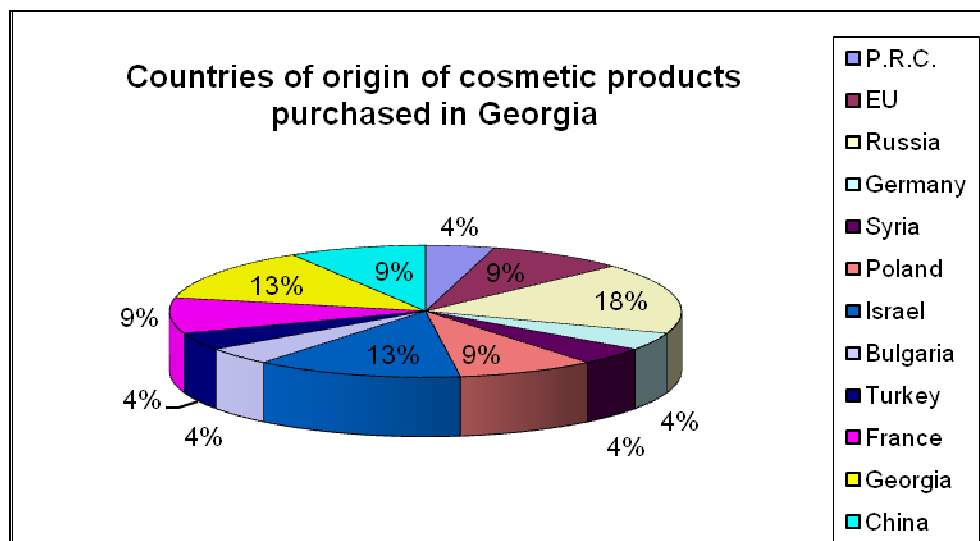
6.3. In Georgia

23 cosmetic products were bought by the partner organization in Georgia and sent to Armenia for analysis. The total number of the samples amounted to 24 as far as one of the products consisted of 2 parts.

Among 23 products were 15 whitening creams, lotions and soaps, 2 tonal creams, 1 child soap, 1 lipstick, 1 eye shadow, 1 regenerative eye cream, 1 foot care cream, 1 cream for skin around the eyes. In case of the cosmetics sent from Belarus, the majority of them turned out to have a Belarusian origin while among the cosmetics sent from Georgia, 18% of products were made in Russia, 13% - in Georgia, 13% - in Israel. The French, European and Polish cosmetics made 9%, correspondingly (Diagram 5). Turkey



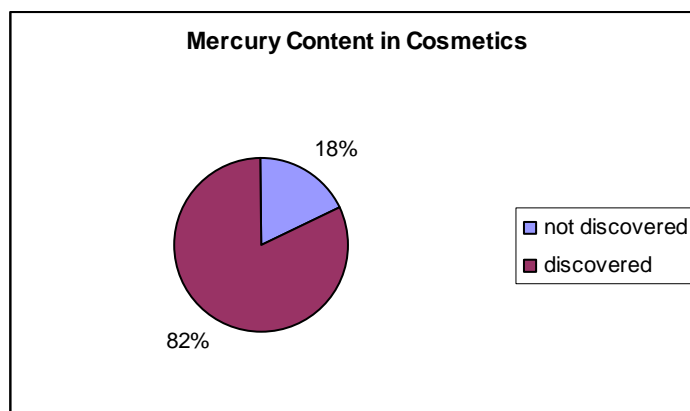
Diagram 5.



All purchased cosmetic products (in total 100 samples) were handed to the Ecological Safety Center of the Yerevan State University for carrying out analyses for the mercury content in these products. The investigation was

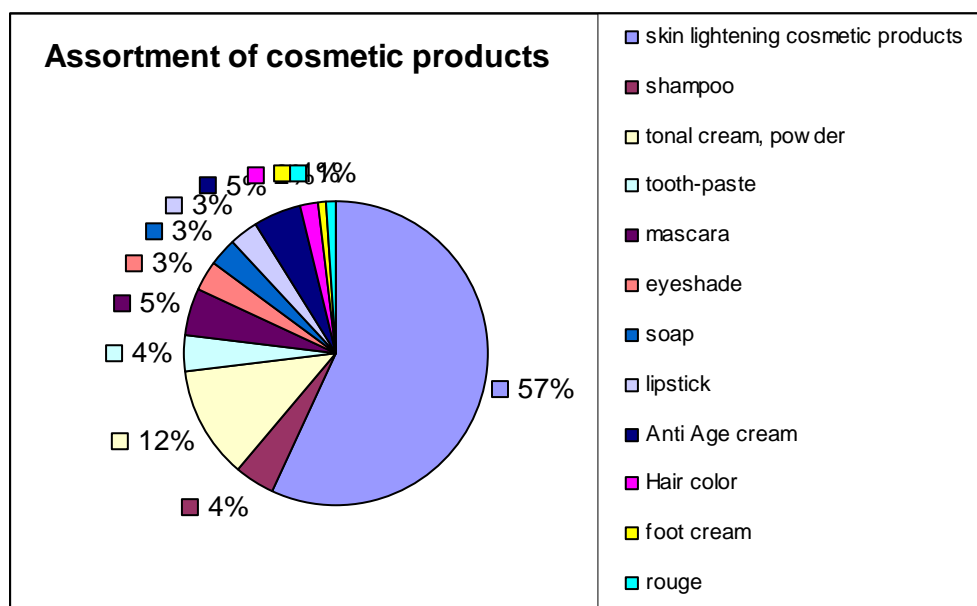
conducted by the help of LECO-Mercury Analyzer AMA-254 (Certificate No S1889474) using an atomic adsorption method.

Diagram 6.



The analyses showed that out of 100 samples mercury was not discovered in 18 samples, including 4 shampoos, 2 child soaps, 1 child lipstick, 1 tonal cream, 1 regenerative cream for eyes, 1 skin nourishing cream, 2 mascaras, 6 whitening creams and scrubs.

Diagram 7.



As seen from Diagram 7 the majority (57%) of purchased cosmetics were skin lightening products.

Different levels of concentrations of mercury were discovered in the remaining 82 samples. The highest levels of mercury were found in *C.L. set* for fading the freckles made in China. This set is comprised of 2 containers: whitening cream and nourishing cream against black spots. In both creams the level of mercury amounted to 1,7ppm. High levels of mercury concentration were found also in 29 samples (0,01233 – 0.08860 ppm) in Achromin skin whitening mask, Feromona dermacos spot serum lightening brown spots and discoloration, Himalaya herbals Fairness cream, RELOUIS eyeshade and etc. Relatively high concentrations (0,00118 – 0,00924 ppm) were found in 40 samples of cosmetic products. For different cosmetic products have a look at table 5. The results of analyses see in the Annexes.

With regard to the creams purchased from the beauty saloon, mercury was found in all these samples although one of the cosmeticians assured that mercury was not contained in the products made in their saloon.

Thus, despite the fact that the mercury content in cosmetic products is banned with some exceptions in all three countries, though in low concentrations but mercury was discovered in the most part of the samples.

Table 5.

Type of cosmetic products	Quantity	Hg discovered	Hg not discovered
Skin lightening cosmetic products	57	51	6
Shampoo	4	0	4
Tonal cream, powder	12	11	1
Tooth-paste	4	4	0
Mascara	5	3	2
Eyeshade	3	3	0
Soap	3	1	2
Lipstick	3	2	1
Anti age cream	5	3	2
Hair color	2	2	0
Foot cream	1	1	0
Rouge	1	1	0

7. Conclusions and Recommendations

From the just concluded baseline survey in all three countries, it is clear that:

- In all three countries the majority of women do not pay a special attention to the ingredients of a cosmetic product. Therefore the governments of the countries should develop special working mechanisms to prohibit the sale of the hazardous cosmetic products. In addition, the cosmetic products should be certified before they reach the consumers (especially in Armenia).
- The close cooperation between all key organizations dealing with cosmetic products such as the Market and Consumers Advocacy State Inspectorate of the RA Ministry of Economy in Armenia and the Hygiene and Anti-Epidemic State Inspection bodies as well as the perfume and cosmetic industry, is of great importance.
- Raising awareness among the women on possible content of toxic substances, especially of mercury in cosmetic products is of utmost importance. The consumers as well must be careful and read the information on the ingredients of the cosmetic products and ask for a certificate before purchasing them. This includes paying attention to the expiration date of the cosmetic products as in some cases this information is either missing on the package or the useful time is expired at the moment of purchasing.
- Pregnant, feeding, and allergic women should exercise maximum caution in choosing the cosmetic products. The use of some cosmetic products that contain toxic substances do not immediately cause poisoning but chronic poisoning may occur in the result of a continuous usage. Therefore, women should avoid long term using of such cosmetic products.
- Finally, mercury production, supply and trade should be banned to cut the mercury flow that ends up in consumer products and eventually in people's bodies. The ongoing mercury negotiation process (<http://hqweb.unep.org/hazardoussubstances/Mercury/Negotiations/tabid/3320/Default.aspx>) which is aimed at achieving this objective and it is our hope that the ensuing treaty will be strong and robust to ensure protection of the human health as well as the environment from mercury contamination is promoted.

7.2 Proposed further actions:

The results of the study show clearly that the continuation of this project is of great importance. The need to utilize the findings from this survey to influence policy especially now that a global treaty is being negotiated cannot be overemphasized. To influence change at the global level, the NGOs that participated in the project would seek to share the results of this survey with the participating countries' government representatives that are involved in the global mercury negotiations and point out the need to ensure that skin care products are listed among the mercury-containing products to be banned through the global treaty. At the local level, the NGOs could push for stricter enforcement of the current regulation which sets limits on mercury use in skin care products and a crack-down on the merchants that are selling these products illegally.

Specific actions to achieve these objectives would include:

a) Influence legislative and policy change:

The NGOs would organize a meeting with the mercury experts within the government in the three countries to discuss these findings an entry into the general discussions on mercury flow within the region. It is good to note here that the only remaining primary mining plant in the world is in Kyrgyzstan which is in the EECCA region. The meeting could take place in Armenia and include participants from the other two countries preferably before the next International negotiating Committee (INC) or a legally binding instrument on mercury scheduled to take place in October 2011. Holding the meeting before the next INC is hoped to influence these government representatives' position on mercury phase out within the auspices of the continuing global debate on a legally binding instrument on mercury by 2013.

At the same time the NGOs would request to be included in the policy development fora so as to create the direct link between grassroots input and policy development. If included in these policy development meetings and process, the NGOs would have an opportunity to present the results of this study to the government and lobby the government to introduce a mandatory certification of the cosmetic products and improve the legislative framework.

b) Create awareness both to the public as well as to the policy

Awareness and understanding of hazards by the local population is key to reducing health risks by limiting exposure pathways. The goal is to improve local practices and consumption patterns which can minimize the risk of exposure to/from mercury and its compounds. To achieve this, a public outreach program should be developed that will inform on risks, possible consequences, treatment options in case of intoxication, and advise on good practices to reduce risk.

This would entail development of sensitization materials that would be disseminated to the consumers and the policy makers. These materials include press releases, booklets, brochures and posters or even information days/forums where the public can access information on which creams contain harmful mercury and which are the better alternatives. Also during the information days, the consumers can ask any questions they may have regarding protection of human health from mercury contamination. Also it would be good to monitor the change in consumers' behaviour after the awareness creation efforts.

A rough budget of 15,000 USD would be sufficient to carry out these activities outlined in paragraphs a) and b) above within a period of about 10 Months.

Immediate actions

To disseminate the project results and to make them available for the public at large and decision makers the following activities shall be carried out immediately:

- Create a media release and disseminate it in all 3 countries preferably simultaneously
- Organize a press conference
- disseminate the result findings widely through the internet and the Zero mercury Working Group network
- Write a letter to the Ministry of Health of Armenia informing them about the results of the study and call the Ministry to take concrete measures to improve the situation
- request a meeting with the Market and Consumers Advocacy State Inspectorate of the RA Ministry of Economy to discuss the results and map a good way forward

8. Annexes

Annex A.

Analyses of the survey results In Armenia

To carry out a survey in all three countries AWHHE developed a questionnaire consisting of 17 questions, and also a guide on survey. The survey was carried out in all 3 countries using the same questionnaire and following the same guide on survey.

Below are presented the analysis of results of the survey carried out in Armenia. Among the respondents were 9 merchants, 30 students, 10 housekeepers, 6 academics and 5 random costumers. The analysis of 13 questions is presented in the form of figures and the answers of the remaining 5 questions are textual.

I. What age group do you belong to?

73,3 percent of the interviewed women, including 9 merchants, 26 students, 2 housewives, 2 random customers and 5 academics, were females of the 20-35 age group. 13,3 % of the surveyed women, including 5 housekeepers, 2 random customers and 1 academic, belonged to the 35-50 age group. 6,7 % of the respondents were of the 15-20 and 50 years and above age groups.

II. Cosmetics of which countries do you prefer to use?

25 % of the interviewed women prefer only the French cosmetics, 28,3 % prefer the cosmetics made in France and other countries, 18,3% use the cosmetics made in Europe, 6,7% prefer only the Swedish cosmetics, and 13,3 % of the respondents prefer cosmetics made in Sweden and other countries (with the exception of the women preferring only French and Swedish cosmetics), and 8,3 % prefer the cosmetics made in the USA, Switzerland, Italy, Bulgaria and Russia.

III. What brands of cosmetics do you prefer to use?

8,3% of the respondents prefer only the cosmetics of L'Oreal Firm, 8,3% prefer the cosmetics of L'Oreal and other firms, 6,7% - L'Oreal and Pupa, 3,3 % prefer the cosmetics of L'Oreal and Lanqome companies. Thus, 26,6 % of the interviewed prefer only the cosmetics of L'Oreal company and also the cosmetics manufactured jointly with L'Oreal firm. 6,7% prefer only the cosmetics of L'Oreal company, and 11,7% prefer the cosmetics of Oriflame and other companies. 26, 7% of the surveyed women prefer the cosmetics of different firms. The survey showed that none of the respondents preferred the home produce cosmetics.

IV. Have you ever had any problems connected with the use of cosmetics?

25% of the interviewed, including 33% of the merchants, 16,7% of the students, 20% of the housekeepers, 33,3% of the academics and 60% of the random customers, have had problems connected with the use of cosmetics. 68,3% of the respondents, including 66,7% of the merchants, 76,7% of the students, 70 % of the housekeepers, 50% of the academics, 40% of the random customers have not had any problems regarding the use of cosmetics. 6,7 % of the respondents, including 6,7% of the students, 10% of the housekeepers, 16,7% of the academics were not able to give a clear answer.

V. If yes, please describe the cosmetics that have created problems and what problems you have had in connection with the use of such cosmetics.

Among the respondents who had some problems connected with the use of cosmetics, 20% of the users mentioned that they had problems because of the use of Mary Kay tonal creams, and 20% of the respondents had problems caused by Oriflame tonal creams. In both cases the users had an allergic reaction. 20% of the respondents

had eye inflammation, 26,6% also had an allergy problem: in 13,3 % of users the reason of the allergy was the cosmetic product of Nivea company, the remaining 13, 3% did not mention the source of the problem. 6,7% had problems connected with a hair dye and the mask "Chaynoe derevo". In the latter case the users had a nettle rash.

VI. How often do you use the cosmetics?

71,6% of the respondents, including 100% of the merchants, 53,3% of the students, 90% of the housekeepers, 83,3% of the academics and 80% of the random customers use cosmetic products every day.

18,3% of the respondents, including 26,7% of the students, 10% of the housekeepers, 16,7% of the academics and 20% of the random customers use cosmetics several times per week.

3,3% of the respondents or 6,7% of the interviewed students use cosmetics several times per month.

6,7% of the respondents or 13,3% of the interviewed students use cosmetics rarely.

VII. Where do you prefer to buy cosmetics?

35% of the respondents, including 33,3% of the merchants, 33,3% of the students, 40% of the housekeepers, 50 % of the academics and 20% of the random customers prefer buying the cosmetics from the supermarkets.

45% of the respondents, including 66,7% of the merchants, 26,7% of the students, 40% of the housekeepers, 50% of the academics and 60% of the random customers pay a serious attention to the origin of the cosmetic products and prefer buying them from the specialized stores.

16,7% of the respondents, including 20% of the housekeepers, 20% of the random customers and 23,3% of the students buy the cosmetics from the individuals. 8,3% of the respondents or 16,7% of the students buy the cosmetics from the beauty saloons.

VIII. Do you read the content (ingredients) before buying the cosmetics?

Almost half of the respondents (48,3%) before buying a cosmetic product do not read the information about the ingredients. The merchants (66,7%) and the students (56,7%) turned out to be the most careless respondents. The content of the cosmetic products is not checked also by 30% of the housekeepers, 33,3% of the academics and 20% of the random customers. The academics (66,7%) and the random customers (60%) are more cautious and pay a special attention to the ingredients of the product. The content of the cosmetic product is checked by 22,2 % of the merchants, 13,3% of the students and 30% of the housekeepers. 25% of the respondents sometimes acquaint themselves with the content of the product.

IX. Do you use skin whitening creams?

Whitening creams are used by 28,3% of the respondents. Consequently 71,7% do not use such products. 50% of the academics use lightening creams, while the remaining 50% of them never use them. Among the random customers only 40% of them use cosmetics. Cosmetics are used by 22,2% of the merchants, 23,3% of the students and 30% of the housekeepers.

X. Do you know that the skin whitening creams may contain mercury?

61,7% of the respondents are well aware that whitening creams may contain mercury. The survey showed that the academics (83.3%) and the housewives (80%) were especially informed. 38,3% of the respondents, especially the merchants (66,7%) and the random customers (60%) were not aware of the content of mercury in cosmetic products.

XI. (only for merchants) Are you aware of the content of mercury in the cosmetic products sold at your shop?

It became clear that the majority of the interviewed merchants (88,9%) are not informed that the cosmetics in their store may contain mercury. Only 11,1% of the merchants know about the possible content of mercury in cosmetics.

XII. (only for merchants) Have you ever received any complaints from your customers?

88,9% of the interviewed merchants never received any complaints from their customers. Complaints were received only by 11,1% of the sellers.

XIII. Do you know that mercury is toxic?

95% of the respondents, including 100% of the interviewed students and random customers, the 88,9% of the merchants, 90% of the housewives, 83,3% of the academics, are well aware of toxicity of mercury. 11,1% of the merchants, 10% of the housewives and 16,7% of the academics lack awareness of toxicity of mercury.

XIV. Have you ever used mercury containing cosmetics?

More than half of the respondents (53,3%), including 77,8% of the merchants, 46,7% of the students, 40,0% of the housewives, 66,7% of the academics, 60,0% of the random customers in their answers mention that they do not pay special attention to the ingredients of the cosmetics. 20% of the respondents who gave positive answer to the question noted that Dermacol was supposed to be the mercury containing cosmetic product that was ever used by them. 30,0% of the interviewed women feel certain that they never used mercury containing cosmetics. Such cosmetics were never used by 40,0% of the random customers, 33,3% of the students and 33,3% of the academics, 30,0% of the housewives and 11,1% of the merchants.

XV. If yes, what positive or negative effects did you notice after using them?

This question is answered by 8 respondents; the majority of them (75%) did not notice any effects. The remaining part of the respondents mentioned such effects like wrinkles smoothing, skin lightening and dryness of skin.

XVI. Do you know mercury - free cosmetics available in the market?

70% of the respondents are not informed about the availability of mercury-free cosmetic products in the local market. Such response was often met especially in the answers of the academics (83,3%) and the students (76,7%), as well of the housekeepers and the random customers (60, 0% respectively). Positive answers were received by 30% of the interviewed, including the merchants (44,4%), the housekeepers and the random customers (40% respectively), the students (23,3%) and the academics (16,7%).

XVII. If yes, do you use only mercury-free cosmetics?

This question was answered by 30% (18 women) of all respondents.

44,4% of the respondents use only mercury-free cosmetics. The question was answered negatively by 22,2% of the interviewed, 33,3% of the respondents try to use only mercury-free cosmetics. Positive answers were reported by the random customers (40%), merchants (33,3%) and the housewives (30%). 16,7% of the academics and 10% of the students gave a negative answer. 13,3% of the students, 11,1% of the merchants and 10% of the housewives try to use only mercury-free cosmetics.

Thus, it becomes clear from the analysis of the survey results carried out in Armenia that the majority of the customers do not pay attention to the composition of the cosmetic products; at best they check the expiration date. Regarding the toxicity of mercury, although 95% of them know about it, but they continue to use cosmetic products, not being confident in their composition.

In Belarus

Below is presented the analysis of the results of the survey carried out in Belarus. Among the participants of the survey were 10 merchants, 31 students, 5 housekeepers, 5 academics, and 8 random costumers.

I. What age group do you belong to?

50,9 % of the interviewed persons, including 2 merchants, 28 students were women of the 15-20 age group. 20,3 % of the surveyed women, including 3 merchants, 2 students, 6 random customers and 1 academic, belonged to the 20-35 age group. 18,7 % of the respondents including 4 merchants, 1 student, 4 academics and 2 random

customers were of the 35-50 age group. And only 10,2% of the respondents including 1 merchant and 5 housewives belonged to the 50 years and above age group.

II. Cosmetics of which countries do you prefer to use?

The analysis of the survey results show that 18,7% of the respondents prefer using EU and Belarusian cosmetics, 11,9 % prefer the cosmetics of EU countries, 8,5% - the cosmetics of Belarus and France, 6,8% prefer Belarusian, 5,1% - the cosmetics of Israel and France, 5,1% - the cosmetics of Germany, France and Belarus, 5,1% - German and French cosmetics, 3,4% prefer the cosmetics of Germany, Israel, France and United Kingdom, 3,4% - French, Belarusian and Polish cosmetics, 3,4% - the products of India and Belarus, and 3,4 % prefer using Belarusian and Russian cosmetics. 27,1% of the interviewed prefer using cosmetics of other countries.

III. What brands of cosmetics do you prefer to use?

The answers are very diverse and the cosmetic products are mentioned in different combinations. In 2 cases the answers coincide regarding the combination of cosmetics. 3,4 % prefer using L'Oreal, Nivea, MaxFactor, Garnier, Florena, Bourjois cosmetics, 3,4% prefer L'Oreal and Nivea cosmetics. Among most preferable cosmetics are the cosmetics under the tradenames L'Oreal, MaxFactor and Belita (18,7% respectively). 15,2% prefer Oriflame and 11,8% -Himalaya cosmetics. Preference for Belor-Design and Maybelline made 8,5% respectively, for Eveline and Vichy 6,7%, for Lanqome, Nivea, Yves Rocher - 5,1% respectively.

IV. Have you ever had any problems connected with the use of cosmetics?

47,5% of the respondents had no problems connected with the use of cosmetics, the remaining 47,5% had some problems, and only 11,9% met some difficulties in answering this question. 100% of the housewives, 62,5% of the random customers, 60% of the merchants, 35,5 % of students and 20% of academics had problems, whereas 80% of the academics did not have any problems. 25% of the random customers faced difficulties in answering this question.

V. If yes, please describe the cosmetics that have created problems and what problems you have had in connection with the use of such cosmetics

Out of all the interviewed women in total 17 participants (28,8%) answered this question. Among the problems caused by the use of cosmetics were mentioned the itch (29,4% of respondents), redness of skin (17,6%), allergy caused by the Belarusian cosmetic product (1 respondent). One respondent had problems connected with the use of Clean and Clear and Garnier Cosmetics. One respondent mentioned skin irritation after using L'Oreal cosmetic. The Pantene shampoo caused redness of skin. Because of Polish eye mascara 2 respondents had eye redness. Also were mentioned skin dryness and conjunctiva but no information was given regarding the sources of these problems.

VI. How often do you use the cosmetics?

The majority of the respondents (64,4%) use cosmetics every day, 25,4% - several times per week, 6,8% - several times per month, and 3,4% use them rarely. Everyday use of cosmetics was mentioned by 83,9% of the students and 80% of the merchants.

VII. Where do you prefer to buy cosmetics?

Almost half of the respondents (49,2%) prefer buying cosmetics from the specialized stores, and 28,8% purchase from supermarkets, 18,7% - from individuals and 3,4% buy from cosmetic saloons. The housewives (80%), the academics (80%) and the merchants (70%) are more cautious and prefer buying cosmetics from the specialized stores.

VIII. Do you read the content (ingredients) before buying the cosmetics?

47,5% of all respondents do not read the composition of the product before buying. Only 16,9% of respondents read the information about the ingredients, 35,5% do it rarely. The most careful approach is shown by the random

customers: half of them read the content without fail. The merchants are considered to be the most careless categories: 30% of them sometimes check the ingredients, while 70% never do it.

IX. Do you use skin whitening creams?

The use of whitening creams is mentioned by 10,2% of the respondents, the other 89,8% never use them. The use of whitening creams is reported only by 19,4% of students.

X. Do you know that the skin whitening creams may contain mercury?

10,2% of all respondents are aware that skin lightening creams may contain mercury. 60% of the academics are well informed about it. The merchants and housewives in general (100%) are not aware of it.

XI. (only for merchants) Are you aware of the content of mercury in the cosmetic products sold at your shop?

Discrepancy is to be observed here as from the answers to the previous question it became obvious that none of the merchants was aware of mercury content in whitening creams, whereas 60% of them in their answers to the given question mentioned that mercury could be contained in cosmetic products.

XII. (only for merchants) Have you ever received any complaints from your customers?

None of the merchants has ever received complaints from their customers.

XIII. Do you know that mercury is toxic?

The majority of the respondents (89,8%) are aware of toxicity of mercury. All the housewives, the academics and the random customers and 90% of the merchants know that mercury is toxic. Knowledge on this issue is lacking in 16,1% of the students and 10% of the merchants.

XIV. Have you ever used mercury containing cosmetics?

Only 1,7% of the respondents feel certain that they have used mercury containing cosmetics. 54,2% are sure that they never use such products, and 37,3% do not pay a special attention to the composition of the cosmetic product. 80% of the academics mention that they surely do not use mercury containing cosmetics.

XV. If yes, what positive or negative effects did you notice after using them?

The previous question was answered positively only by one respondent. This person did not notice any effects after using mercury containing cosmetic product.

XVI. Do you know mercury - free cosmetics available in the market?

45,7% of the respondents are aware of the availability of mercury-free cosmetics in the market, whereas 54,2% are not informed about it. All the academics (100%) know about the mercury-free cosmetics, while all the housewives are not aware of it.

XVII. If yes, do you use only mercury-free cosmetics?

None of 27 respondents gave a negative answer to this question. 22,2% of the respondents try to use mercury-free cosmetics. 37,5% of the housewives use similar cosmetics. 80% of the academics try to use only mercury-free cosmetics.

Thus, the analysis of the survey carried out in Belarus showed that although 89,8% of all respondents are aware of the toxicity of mercury, only 35,5% of them acquaint themselves with the ingredients of the cosmetic product before buying it. The merchants are not aware that the cosmetics sold in their store may contain mercury. In contrast with the Armenian women, the women in Belarus are more cautious and the 49, 2% of them prefer buying cosmetics from the specialized stores.

In Georgia

In Georgia the survey was conducted among 12 merchants, 25 students, 14 housewives, 5 academics and 7 random customers. Below are presented the results of the survey.

I. What age group do you belong to?

20,6% of the respondents (11 students, 1 merchant and 1 random customer) were women belonging to the 15-20 age group, 20,6 % of the interviewed (4 merchants, 5 housewives, 3 academics and 1 random customer) were females of the 30-50 age group, 36,5 % of the respondents (4 merchants, 14 students, 1 housewife and 4 random customers) were the 20-35 age group females. 22,2% of the respondents including 8 housewives, 3 merchants, 2 academics and 1 random customer belonged to the 50 years and above age group.

II. Cosmetics of which countries do you prefer to use?

30,2% of the surveyed women prefer using French cosmetics, 27% - Russian, 7,9% - home made cosmetics, 6,4% - Bulgarian, 4,8% - Ukrainian. Russian, Bulgarian, German, Italian, Polish and Sweden cosmetics are preferable for 3,2% of the respondents, correspondingly. Women who prefer Greek, Georgian, Turkish, American and other countries' cosmetics made 1,6%, respectively. So, as the female representatives of both countries prefer using French cosmetic products, it may be concluded that the preferences of the Armenian and the Georgian women to some extent coincide.

III. What brands of cosmetics do you prefer to use?

The answers of this question vary to a great extent. 11,1% prefer using Svoboda cosmetics, 9,5% - cosmetics under the trade names Kalina and Chistaya Linia, 7,9 % prefer Vichy cosmetics, 7,9%- Chanel, 6,3% prefer cosmetics made by the local cosmeticians and also products of other countries. L'Oreal, La-Roche, Ventoni cosmetics are preferred by 4,8%, respectively. 4,8% of the respondents do not remember the names of the cosmetics they use. 3,2% prefer Oriflame, Kalina, Sto Receptov Krasoti and Bela Jardin cosmetics. 14% of the respondents mention only one brand this being either of the Russian or the French origin.

IV. Have you ever had any problems connected with the use of cosmetics?

73% of the respondents never had any problems connected with the use of cosmetics. Problems were reported by 22,2% of the interviewed women, and 4,8% faced difficulties in answering this question. 28,6% of the random customers, 25% of the merchants and 20% of the academics also had problems. 85,7% of the housewives did not mention any problems.

V. If yes, please describe the cosmetics that have created problems and what problems you have had

The answers of the previous question showed that 14 respondents had problems connected with the use of cosmetics: 3 women had an allergy, 2 women had redness and allergic reactions due to the use of Avon and home made cosmetics, 2 respondents had rash, 4 women had redness of skin, and 1 woman had sensitivity. The latter respondents did not mention the sources of their problems.

VI. How often do you use the cosmetics?

57,2% of the respondents (66,7% of the merchants, 60% of the academics, 57,1% of the random customers and 50% of the housewives) use cosmetics every day. 36,5% of the interviewed women use cosmetics once per week, 6,4% - several times per month, and 14,3% of the random customers use cosmetics several times per month.

VII. Where do you prefer to buy cosmetics?

68,3% of all respondent prefer buying cosmetics from the specialized stores, 17,5% -from supermarkets, 3,2% - from individuals and 11,1% - from the beauty saloons. The most fastidious women of all the respondents are the

random customers (85,7%) and the academics. Only 25% of the merchants consider the beauty saloons as trustworthy.

VIII. Do you read the content (ingredients) before buying?

The analysis of the answers show that 41,3% of the respondents read the information about the ingredients without fail, 34,9% do it in some cases, while 23,8% never pay attention to it. Before buying a cosmetic product the interviewed academics (100%), housewives (64,3%), merchants (33,3%) and the students (32%) mention that they acquaint themselves with the ingredients of it. 41,7% of merchants do not pay attention even to the content of the cosmetics that they use for their personal needs.

IX. Do you use skin whitening creams?

50,8% of all respondents do not use skin whitening creams, whereas 49,2% do use them. The use of skin lightening creams is reported by 64,3% of the housewives, 58,3% of the merchants, 57,1% of the random customers and 40% of the students. The majority of the academics (80%) never use skin whitening creams.

X. Do you know that the skin whitening creams may contain mercury?

66,7% of the respondents are not aware that skin whitening creams may contain mercury, but 33,3% of the interviewed females are well-informed about it. The academics (100%) and the 50% of the merchants are well aware of this, whereas 80% of the students are not knowledgeable.

XI. (only for merchants) Are you aware of the content of mercury in the cosmetic products sold at your shop?

75% of the interviewed merchants are not aware that the cosmetics sold in their stores may contain mercury. Only 25% of them are aware of this issue. But 50% of the merchants in their answers to the previous question mentioned that they knew about the possible containing of mercury in skin whitening creams. Thus, one can assume that the merchants tried to present their shops in the best way or they were naïve to believe that the cosmetics sold in their stores cannot contain mercury.

XII. (only for merchants) Have you ever received any complaints from your customers?

75% of the surveyed merchants reported that they had not received any complaints from the consumers, whereas 25% of the merchants mentioned that some complaints were received.

XIII. Do you know that mercury is toxic?

49,2% of the respondents are well-informed about the toxicity of mercury, whereas 50,8% are not aware of it. The interviewed academics (100%), the housewives (71,4%) and the merchants (58,3%) know that mercury is toxic. With regard of students and random customers, they are not knowledgeable (72% and 71,4%, respectively).

XIV. Have you ever used mercury containing cosmetics?

65% of the respondents feel certain that they have never used mercury containing cosmetic, 28,5% answered that they did not pay a special attention to the ingredients of a cosmetic product, and 6,4% of the interviewed females (4 women) thought that they had possibly used mercury containing cosmetics. The academics (100%) are sure that they have never used such product, whereas 25% of the merchants think that they have used mercury containing cosmetics.

XV. If yes, what positive or negative effects did you notice after using them?

Although 4 women in their answers to the previous question mentioned that they had used skin lightening creams, this question was answered only by 3 women. 2 of them mentioned that they had felt the whitening effect of the creams used, whereas the other woman had a problem of skin dryness.

XVI. Do you know mercury - free cosmetics available in the market?

68,3 % of the respondents are well-informed about the availability of mercury-free skin whitening creams. Correspondingly, 31,7% are not aware of it. The academics (100%) and the merchants (66,7%) answered to this question positively. 40% of the students gave a negative answer to this question.

XVII. If yes, do you use only mercury-free cosmetics?

Out of all respondents 17 women, including 80% of the academics and 16,7% of the merchants, use only mercury-free cosmetics.

21.03.2011

city Yerevan

Hand - over and Acceptance Statement

The Ecological Safety Centre of the Yerevan State University is handing over and "Armenian Women for Health and Healthy Environment" NGO is accepting the results of the analyses for the content of mercury in 100 cosmetic products presented to the Centre by the mentioned organization (results are attached).

N	Name	ppm
1.	N1. <i>Oriflame Optimals White Night Cream Liquorice Extract+Whitening Complex</i>	0.00600
2.	N2. <i>Oriflame Optimals Even OUTtm Day Cream SPF 20</i>	0.00200
3.	N3. <i>Optimals White day fluid SPF 15 Liquorice Extract + Whitening Complex</i>	0.00200
4.	N4. <i>Oriflame Optimals Even OUTtm Dark Spot Fading Concentrate</i>	0.00130
5.	N5. <i>ACROACTIVE</i>	0.00258
6.	N6. <i>JOLEN Bleaching Cream</i>	0.00080
7.	N7. <i>Belle Jardin Active Nature</i>	0.00580
8.	N8. <i>Bio Nica Facial mask skin care</i>	0.00470
9.	N9. <i>Bio Nica Facial mask skin care Pomegranate seed oil, vitamin C, E with nourishing cream</i>	0.00010
10.	N9/1. <i>Bio Nica Facial mask skin care Whitening</i>	0.00747
11.	N10. <i>Balet Tonal cream</i>	0.00206
12.	N11. <i>Jose Eisenberg Paris Anti Age Treatment</i>	0.01600
13.	N12. <i>Christian Breton Paris Whitening Lotion</i>	0.00050
14.	N13. <i>EVELINE active whitening cream</i>	0.00300
15.	N14. <i>Belle Jardin Active white</i>	0.00500
16.	N15. <i>Jolen Crème Bleach Lightens Excess Dark Hair</i>	0.00110
17.	N16. <i>Fflur (FF) Liquid foundation flawless natural Bio elastin and UV-B filter</i>	0.00310
18.	N17. <i>Max Factor Lasting Performance</i>	0.00310
19.	N18. <i>ARM Armenuhi</i>	0.00130
20.	N19. <i>Golden Rose Volume building mascara</i>	-
21.	N20. <i>Wash &GO shampoo</i>	-
22.	N21. <i>Happy Life shampoo for children</i>	-
23.	N22. <i>Vitex whitening night cream</i>	0.00400
24.	N23. <i>Krasnaya Lina whitening cream for face</i>	0.00139
25.	N24. <i>DERMACOL MAKE UP Cover</i>	0.00347
26.	N25. <i>Beauty Hair color</i>	0.00039
27.	N25/1. <i>Beauty shine color</i>	-
28.	N26. <i>Lightening Night cream from salon</i>	0.01580
29.	N27. <i>Marry Kay Tone cream</i>	0.00090
30.	N28. <i>Oriflame Giordani Gold Tone cream</i>	0.00029

31.	N29.	<i>Head& shoulders shampoo</i>	-
32.	N30.	<i>XXL Maybelline Double Beuefit Whiten& Permanence moisture</i>	0.00200
33.	N31.	<i>Christina Fluor Oxygen+ C Clarifying Scrub Rejuvenating & lightening</i>	0.00100
34.	N32.	<i>NIVEA Crème</i>	-
35.	N33.	<i>Oriflame Beauty Lash Extreme mascara</i>	-
36.	N34.	<i>Pupa face powder</i>	0,00010
37.	N35.	<i>Ruby Rose Sublime Touch Make up Liquid Foundation</i>	0.00021
38.	N36.	<i>Rapsodi eyeshade</i>	0.00030
39.	N37.	<i>Bio Nica Facial mask skin care</i>	0.00500
40.	N38.	<i>Bio Nica Facial mask skin care Pomegranate seed oil, vitamin C, E with nourishing cream</i>	0.00151
41.	N38/1.	<i>Bio Nica Facial mask skin care Whitening</i>	0.0075
42.	N39.	<i>Belle Jardin Active Nature</i>	0.00500
43.	N40.	<i>Johnson's baby soap</i>	-
44.	N41.	<i>Whitening mask for face</i>	0.05030
45.	N42.	<i>Lacalut white</i>	0.03956
46.	N43.	<i>Parodontax</i>	0.02202
47.	N44.	<i>Garnier skin Naturals</i>	0.02814
48.	N45.	<i>Belle Jardin Active white</i>	0.00500
49.	N46.	<i>Cliven tooth-paste</i>	0.016023
50.	N47.	<i>Malenkaya Feya</i>	-
51.	N48.	<i>EVELINE Cosmetics</i>	0.06669
52.	N49.	<i>Whitening cream from salon</i>	0.02100
53.	N1 B.	<i>"Vitex" CJSC whitening night cream</i>	-
54.	N2 B.	<i>"Vitex" CJSC whitening day cream</i>	-
55.	N3 B.	<i>32 Djemchujeni whitening tooth-paste</i>	0.00193
56.	N4 B.	<i>Perfumery, scrub for face and decollete against black spots and acne</i>	-
57.	N5 B.	<i>"Exclusive cosmetics" whitening anti age night cream</i>	0.00691
58.	N6 B.	<i>"Exclusive cosmetics" whitening mask-cocktail with rejuvenating effect</i>	0.00269
59.	N7 B.	<i>Belkosmex mirielle, lightening cream with vitamin C and lavender oil</i>	0.00253
60.	N8 B.	<i>Floralis white gold night cream</i>	0.01609
61.	N9 B.	<i>Achromin whitening face wash</i>	0.05650
62.	N10 B.	<i>Achromin skin whitening mask</i>	0.08860
63.	N11 B.	<i>Eveline cosmetics double white day cream</i>	0.00306
64.	N 12B.	<i>Eveline cosmetics double white night cream</i>	0.00330
65.	N13 B.	<i>Vitex CJSC whitening tonal & peeling</i>	0.04570
66.	N14 B.	<i>Feromona dermacos spot serum lightening brown spots and discoloration</i>	0.07000
67.	N15 B.	<i>Himalaya herbals Fairness cream</i>	0.06000
68.	N16 B.	<i>"Belor-Design" mascara</i>	0.05730
69.	N17 B.	<i>RELOUIS mascara</i>	0.06320

70.	N18 B.	<i>RELOUIS eyeshade</i>	0.06118
71.	N19 B.	<i>"Belor-Design lipstick</i>	0.03186
72.	N20 B.	<i>Lux visage mascara</i>	0.01397
73.	N21 B.	<i>Lux visage tonal cream</i>	0.01802
74.	N22 B.	<i>Unicosmetic discoloring agent for hair (flask with oxidizing material, 2 packets with whitening powder, balsam)</i>	0.00214
75.	N23 B.	<i>Bielita color discoloring agent for hair</i>	0.01240
76.	N24 B.	<i>"Belor-Design" delicate rouge- small balls</i>	0.02964
77.	N1 G.	<i>Olive new magic skin lightening cream</i>	0.00118
78.	N2 G.	<i>DERMACOL MAKE UP Cover</i>	0.00291
79.	N3 G.	<i>BiTEKS whitening</i>	0.01289
80.	N4 G.	<i>Floresan Belij lyon whitening</i>	0.00840
81.	N5 G.	<i>Yano body cremeseife Mild skin lightening cream</i>	0.00924
82.	N6 G.	<i>Original Magdoline Chale make up cream</i>	-
83.	N7 G.	<i>Eveline cosmetics Extra soft whitening cream</i>	-
84.	N8 G.	<i>Berezoviy cosmetic cream with whitening effect</i>	-
85.	N9 G.	<i>Mineral SPA " Health and Beauty" lightening facial soap</i>	0.01233
86.	N10 G.	<i>Lightening cream SPF-20 " Health and Beauty"</i>	0.03883
87.	N11 G.	<i>Soap Detskoe</i>	-
88.	N12 G.	<i>EVELINE active whitening cream</i>	0.00179
89.	N13 G.	<i>Belle Jardin Active Nature</i>	0.00150
90.	N14 G.	<i>Achroactive Max whitening cream</i>	-
91.	N15 G.	<i>Lipstic concealer stick</i>	0.00096
92.	N16 G.	<i>Chanel cream regenerative fundamental</i>	0.00171
93.	N17 G.	<i>Private manufacturer Natela</i>	0.02207
94.	N18 G.	<i>CL cream</i>	1.7
95.	N18 G/1	<i>CL cream</i>	1.7
96.	N19 G.	<i>Iverioi "Nurisi" foot cream</i>	0.03172
97.	N20 G.	<i>Faison eyeshadow ADS</i>	0.03000
98.	N21 G.	<i>Dior prestige parfum Revilasing eye cream</i>	-
99.	N22 G.	<i>Homemade Wrinkle reduction cream</i>	0.00628
100.	N23 G.	<i>Achroactive Max whitening cream</i>	0.00070



E. Manvelyan

President of "Armenian Women for Health and
Healthy Environment" NGO



9. References

- 1- U. S. Environmental Protection agency. <http://www.epa.gov/hg/effects.htm>
- 2- Skin Whitening and Skin Lightening Resources. <http://www.whiterskin.info/mercury-is-a-dangerous-skin-lightening-ingredient/>
- 3- FOX News. <http://www.foxnews.com/story/0,2933,316811,00.html>
- 4- Mercury in Skin Lightning Products. <http://www.epa.state.il.us/mercury/mercury-cosmetics.pdf>
- 5- Regulations on the use of toxins in cosmetics. <http://www.health-report.co.uk/cosmetic-regulations.htm>
- 6- Mercury poisoning. http://en.wikipedia.org/wiki/Mercury_poisoning#Cosmetics
- 7- BLISSTREE. <http://blisstree.com/look/beauty-products-mercury-found-in-skin-bleaching-creams/>
- 8- The Danger Of Mercury In Beauty Products. <http://meliatop.com/the-danger-of-mercury-in-beauty-products.html>
- 9- Live Journal. <http://superhimik.livejournal.com/2009/12/29/>
- 10- Information export support website. http://www.export.by/?act=s_docs&mode=view&id=1789&type=by_class&indclass=21966&mode2=archive&doc=64
- 11- Information export support website. http://business.export.by/?act=s_docs&mode=view&id=4172&type=by_country&country_id=13&mode2=archive&doc=64
- 12- Armenian Legal Information System. www.arlis.am
- 13- National Statistical Service of the Republic of Armenia. www.armstat.am
- 14- Mercury Warning for Skin Lightening Creams. <http://www.newsinferno.com/health-concerns/mercury-warning-for-skin-lightening-creams/>