

# ARPA

## Analysis Research & Planning for Armenia

### NEWSLETTER

Volume 5, Issue 2 ARPA Institute, P.O.Box 33603, Granada Hills, CA 91344 December 1999

#### A New Course on Health Risk Factors Taught to High School Students in Armenia

*Project definition and progress report*

Hrayr S. Karagueuzian\*

*"Live sensibly - among a thousand people, only one dies a natural death, the rest succumb to irrational modes of living."*  
Maimonides, (1135-1204 AD)

While the great philosopher, Maimonides, had recognized the perilous consequences of health risk factors centuries ago, it is only recently that the general public in the U.S. is being made aware of elevated health risk factors promoting cancer, heart attack and stroke. Such educational undertakings are by and large being accomplished by monumental efforts exerted by private/public organizations such as the American Cancer Society and the American Heart Association, to name a few. By disseminating the risk factors related to excessive smoking, alcohol & substance abuse, obesity, stress, hypertension and low self-esteem, these health-promoting organizations have succeeded in significantly reducing the incidence of premature death and disease. The records of the US Public Health and Human Services and the National Institutes of Health show these results clearly.

*continued on page 2*

#### Honor the Past and Imagine the Future

Hagop Panossian

The Armenian nation has survived through several millenia. Throughout the ages Armenians have migrated from their homeland to various other countries, thus forming diasporas. Wherever they have settled they have created churches and schools for children. They have also kept some form of contact with the homeland, either through the church leadership or via merchandising activities. However, there are only a few instances in our history when a given Armenian community has helped Armenia in any way, other than sending in some financial assistance. The majority of all the diasporas have created means of removing Armenians from their homeland to "greener pastures", thus taking away the most entrepreneurial and adventurous, and sometimes even the educated spirits from the land. This phenomenon continues even now and more vigorously.

On the other hand, the diasporas are facts of life and they have to be treated properly. Armenia is now an independent nation and is the owner of the problem called diaspora. There are many ways Armenia can treat their compatriots abroad and none will satisfy all the "diasporas". The leadership of Armenia has a genuine stake in the diaspora. If the attitude of a given Armenian community in any given country is positive towards Armenia, then there are ways of positively effecting the host countries' political outlook towards Armenia. This can be difficult if there are diasporan groups that have diametrically opposing views to that of the government of Armenia. On the other hand the government has a virtually impossible task in keeping everyone happy, especially because there is no leadership to deal with. At best there are influence circles. These influence circles have created networks and mechanisms that are used as their hubs of force in promoting an image and/or impressing their attitudes upon the masses. Some of these influence circles have financially strong people that provide the necessary funding for a given cause that is found worthy by the elite. The majority of the Armenians are out of the direct influence of these elite because they either do not care about anything Armenian or are, somehow or another, alienated. There are also those that would like to do good independently or remain bystanders. All Armenians, however, deserve to be

---

#### INSIDE THIS ISSUE

- 1 A New Course on Health Risk Factors
- 1 Honor the Past and Imagine the Future
- 3 President of NFSAT of Armenia visits LA
- 4 Report from "Sarko Tilkian Blood Services Center"

Still, each year 400,000 Americans die directly from tobacco related diseases. An extrapolation of these numbers to the population of the Republic of Armenia (ROA) (even conservatively) points to the premature death of one person every two hours! Since, in this high-risk population, death often strikes the person at his/her prime, the economic impact, while no match to the loss of a precious human life, is considerable. By the sudden and premature death of an individual at his/her prime, long and costly years of learning and training processes suddenly vanish leaving a huge vacuum very difficult and prohibitively expensive to fill. The irony however is that such valuable and untimely loss of human life and productivity can be averted because most of the premature death-promoting factors are controllable by human will. A person can by his/her own will and decision, maintain these factors within a safer range and prevent the early onset of morbidity and mortality. This is accomplished by adopting healthy life style habits. It is equally true, however, that it is easier and perhaps more expedient to pontificate about adoption of healthy life style habits than to be able to practice them. Changing life style habits once acquired is a very difficult and slow undertaking. Models and theories of behavior modification have shown time and again the high costs and the slow process involved in changing a habit once acquired. Even if behavior modification is exercised, failure rates are notoriously very high. This is so because of the development of the phenomenon known as addiction, both in the objective and subjective sense of the term. In order to insure greater success and ease of acquiring safer and healthier life style habits the education process and the actual practice of healthy life style habits must start at an early age before the habit (addiction) kicks in.

With these facts and concerns in mind, the Los Angeles-based Analysis, Research and Planning for Armenia (ARPA) has initiated a new course, entitled health education and lifestyle program (HELP) for mid-level High School students in Armenia. The course is designed to teach the students about addiction, narcotics, smoking, alcohol abuse, unhealthy eating habits and lifestyle, and facts about the necessity of assuming personal responsibility and a high level of self-esteem.

After two years of planning, this author has prepared a booklet of 22 chapters that systematically details and clarifies in simple terms each of the health risk factors in a style of discovery and learning rather than the "doctor-patient" approach. The book was translated to Armenian by Dr. Ani Vartabedian, a graduate of Yerevan State Medical School and published in mid 1998, thanks to the generosity of the Armenian Missionary Association of America (AMAA). Through the efforts of ARPA Board members in LA and its Yerevan-based VP and course coordinator the HELP course was successfully administered in the above mentioned 10 schools in Armenia, with the approval of the Ministry of Education

and Science on a one hour per week basis. During the year 1998-99 there was a total of 800 students (8<sup>th</sup> grade) in 10 schools. Seven of the schools are in Yerevan, and the rest in Bejni, Apovyan and Etchmiadzin. The results of the final exams in these 10 schools were nothing short of resounding successes, according to the ARPA coordinator Lucine Aloyan and our VP Serop DerBoghossian. Lucine visits the schools regularly for quality control, attendance and test distribution and evaluation. This author prepares the questions for tests and for the final exam in a multiple choice format. With no absenteeism, 96% of the students scored a passing grade with 20% of them scoring excellent to perfect.

Impressed with these results and the cooperation of the Principals and the students of 10 schools we have enlisted 5 additional schools in Yerevan to participate in the HELP program. Moreover, ARPA took the unusual step and embarked on a fundraising campaign to sustain and expand the program. The outcome of the fundraising is surprisingly lower than expected. Nevertheless, ARPA managed to sustain the program largely through the generous contribution of a dozen or so individuals and friends of ARPA, and the HELP project is now in its second year. During the 1999-2000 academic year HELP will be taught in 5 new schools in Yerevan, thus having a total of 1,200 students in 15 schools. I am happy to report that concrete steps are being taken and funds are already secured for one school (the first!) in Stepanakert (Karabagh) to teach the HELP course starting February 2000 on a 2 hour per week basis for five months to the combined 7<sup>th</sup> and 8<sup>th</sup> grade students. In addition to the service fees and the travel expenses of our coordinator in Yerevan (and other minimal office and administrative expenses), the cost of the program is limited to providing an honorarium of \$25 for each of the 15 teachers. The total cost per school runs in the order of \$400 a year.

ARPA's ultimate goal is to secure the support and the active participation of the ROA's Ministry of Education and Science to make HELP a part of the official curriculum and a required course to 8<sup>th</sup> grade students in the entire ROA and RNK.

As a final thought, it is in order to emphasize that Armenia has very limited reserves, restrained natural resources and minimal assets. Armenia's most valuable asset is its human resources and its future hope lies in its children. These children need help and guidance to grow and mature into healthier and more productive citizens. Since this crucial help is needed now and at the present the Government of the ROA is neither in a position nor has the resources to provide this help, the Diaspora with its enlightened self-interest and keen affect should fill this critical gap.

*\* HSK is Sr. Research Scientist at Cedars-Sinai Research Institute and Professor of Medicine at UCLA School of Medicine.*

## **President of National Foundation of Science and Advanced Technology of Armenia Visits Los Angeles**

Gagik Melikyan

Dr. Harutyun Karapetyan, the Chairman of National Foundation of Science and Advanced Technology (NFSAT), visited Los Angeles from September 14 to 16, 1999 at the invitation of the US Civilian Research & Development Foundation (CRDF). ARPA Institute organized a meeting for the visitors with the Armenian/American scientific and engineering community leaders which was held on September 14, 1999 at the Merdinian Armenian School in Sherman Oaks.

The objectives of Dr. Karapetyan's visit were two-fold:

1) Primarily the purpose of the visit was to inform the scientific and professional community of Los Angeles about NFSAT and CRDF. CRDF is a non-profit organization created by the US Government under the auspices of the National Science Foundation (NSF) to help promote collaborative research with the former Soviet countries. He said that the CRDF has a grants program under which a U.S. scientist or an engineer can apply for a collaborative scientific grant with counterparts in Armenia. Dr. Karapetyan's organization in Armenia is a partner in that program and will facilitate and administer the grants. CRDF and NFSAT are thus grant-makers whose aim is to increase the awareness of members of the U.S. scientific community of possibilities for collaborative research with their counterparts in Armenia.

2) The second objective is to help NFSAT find new partners and eventually become a self-sustaining organization (currently NFSAT is operating out of funds provided by CRDF). So the latter is seeking grants from both government agencies and philanthropic organizations as well as collaborative work that might result in some contracts or other revenue stream for NFSAT.

During the meeting, Ms. Inta Berkovskis of the CRDF spoke about CRDF's programs. A period of questions and answers followed. Dr. Karapetyan and Ms. Berkovskis discussed ways and means of scientific collaboration and cooperation. The type of research currently performed in Armenia through grants from the CRDF, the research potential and capabilities, as well as programmatic guidelines of the NFSAT were reviewed.

counted as, and have the right to feel part of their people. It's the burden, mainly of the churches, and also the diaspora organizations (and now partly Armenia) to achieve this.

The government of Armenia has dealt with the diasporas in various ways in the past. The Ter-Petrosyan administration had a practical vision that involved investing in Armenia, supporting Armenia via lobbying efforts, doing humanitarian work, but without interfering in internal politics. The Kocharian/Sarkissian administration has chosen the softer approach. It has allowed all parties to participate in the political process, expecting in return their backing and investments. The Armenia-Diaspora conference was a good manifestation of this regime's attitude. It essentially, sent the message that the diaspora can have all the differences in its internal and inter-party relations. But when it comes to Armenia they should all get together and help attain the same goal. Namely, help strengthen Armenia, invest in Armenia, lobby for Armenia, but not interfere with the internal affairs of Armenia. Although slightly different from the previous administration, it has the same basic principle.

The perception is that the government of Armenia has not placed a high enough degree of importance to the diaspora. The current status of the Armenia-Diaspora relations is in the hands of a department under the Foreign Ministry, similar to what it was during the Soviet era. If the diaspora is important for Armenia then its liaison body should at least have the rank of a Ministry.

What can the Diaspora do? There are now many independent professional organizations in the diaspora working towards enhancing the lives of their fellow countrymen. These have "soup kitchens", support schools and orphanages, or carry out professional activities, such as establishing modern blood banks and medical centers, as well as helping the higher education system. ARPA Institute has two major programs ongoing in Armenia; 1. The "Sarko Tilkian Blood Services Center" that was inaugurated in December 1998 and is fully operational, 2. The Health Education and Lifestyle Project (HELP), which has helped numerous youngsters live a healthy, smoke & alcohol free life. We successfully taught HELP in 10 schools reaching 800 7<sup>th</sup> and 8<sup>th</sup> grade students. We will expand to 15 schools this year and have plans to start HELP in Karabagh as well, thanks to the enthusiastic financial support of our community in the US. The traditional diaspora organizations have their own agendas that most often have political overtones. ARPA strives to be an independent professional organization of experts that has its *raison d'être* to assist Armenia. Our members have carried out numerous consultations with various Ministries of Armenia and have provided assistance to many centers of higher education. We believe that any assistance to Armenia should be independent of the existing administration or political atmosphere, and especially should not have any strings attached and should have one thing in mind: a stronger Armenia and a better life for its people. All should have one motto, honor the past and imagine and plan the good future.

*continued on page 4*

The NFSAT is organized along lines similar to the U.S. National Science Foundation. It is intended to operate independently from the government and its research grants are awarded on a competitive basis, unlike the National Academy of Sciences (NAS) where peer review process has not yet been implemented. The question was raised whether such an organization is in competition with the NAS. The answer was that the presidents of the NAS, the Yerevan State University and the State Engineering University are all members of the board of NFSAT and there is a constant communication between the officials of these organizations.

The meeting was organized with the help of the Armenian Engineers and Scientists of America (AESA) and other organizations.

Arrangement was made to visit the California State University, Fullerton, where Dr. Gagik Melikyan (Professor of Organic Chemistry at California State University, Northridge) took the guests on a tour of the Regional X-Ray Crystallography Center and held discussions with the director of the center, Professor Katherine Kantardjieff. Dr. Karapetyan became familiar with the state of the art equipment

#### **ARPA Institute Board of Directors and Officers**

H. Aintablian, Ph.D., *Technology*

V. Broussalian, Ph.D., *Economics*

A. H. DeMirdjian, M.S., *Energy, Petroleum*

S. DerBoghossian, M.S., PE, Vice President,  
*Transportation*

H. Karagueuzian, Ph.D., *Pharmacology, Health*

S.P. Karian, B.S., PE, *Energy*

G. Melikyan, Ph.D., *Chemical Technology*

H. V. Panossian, Ph.D., President, *Technology & Organisational Control*

A. Runge, MT (ASCP), *Health*

S. S. Simonian, Ph.D., Treasurer, *Technology & Natural Resources*

J. Tabibian, M.A., *Planning and Policy*

C. Tateosian, B.S., PE, *Energy*

A. Tilkian, M.D., *Health/Cardiology*

V. Vorperian, Ph.D., Secretary, *Power Electronics*

A. M. Yeghnazar, M.A., *Business/Finance*

I. Hovseyan, Exec. Director

## **Report from the the Director of the "Sarko Tilkian Blood Services Center"**

Arshak Abrahamyan

### **Training at UCLA**

I started my training at UCLA on July 5, 1999. The first part of the training involved evaluation of donor information forms. At the Erebuni Hospital we have started using specially prepared donor information/background forms since January of 1999. I had to evaluate our forms with respect to the ones used at UCLA. I have taken copies of all the SOP's with me to study and implement appropriate procedures in Armenia. I now fully understand the organization of volunteer donor drives as well as emergency donor procedures and record keeping activities. Very important records/information are requested in these forms about the iron content of donor blood such as whether the iron content is low because of dietary reasons or induced by drug use. I also learned and collected literature on the determination of hematocrit by the use of centrifuges and by micro-testing methods.

Especially interesting for me was the formal and professional treatment of the donors. This professional approach is non-existent and definitely needs to be applied in Armenia, specially if we are to start voluntary donor procedures and blood collection campaigns.

I learned the use of the promposite generation machine, the technology involved and the procedures. I have copies of the documentation and procedures with me now for use in Armenia. Of course the absence of epheresis machines in Armenia and the large sums of money required for the acquisition of such machines does not allow the use of these procedures in the near future.

In the UCLA blood bank I learned about the principles involved and the use of incubators and the special cabinets for the storage of tromposites and the safety conditions required. I think that it is possible to start the derivation of tromposites from donor units in our laboratory in Yerevan. We have great demand for tromposites in Armenia and the region. I have a clear picture of the procedures and the record keeping forms for this useful process.

The various analyses performed in the UCLA blood bank were very impressive and useful to me. All these need to be carried out within the "Sarko Tilkian Blood Services Center". In the blood bank the blood grouping, ABO, RH-HR and the antibodies are determined and the cross matching of blood for transfusion is carefully performed. I have a complete understanding of the procedures and the technology used in the cross-matching and the determination of the antibodies in blood. Also informative were the blood transfusion/analysis procedures related to pregnant women, women with hard labor and newborn children, the procedural literature and approaches of which are now clear to me. This is especially important for us because by a recent decision of the Yerevan City Municipality

continued on page 5

the “Sarko Tilkian Blood Services Center” will be the primary source of blood for all transfusions related to childbirth in Yerevan Hospitals.

I also thoroughly studied the process of freezing the red blood cells at temperatures of -65 to -80 degrees Celsius. The process of thawing these cells is even more interesting. The implementation of such a procedure is not practical at this time in Armenia due to the expensive refrigeration systems required. However, we can implement a similar process of freezing the red blood cells from -22 to -24 degrees Celsius and thus be able to safely store blood cells for 9 months.

**Training in the San Bernardino-Riverside Regional Blood Bank**

I was specially interested in the auto bus that is used to transport blood for emergencies. The specially adapted weights and balances, the nicely designed mechanisms that move as blood is being transported, are things that can easily be adapted and used in Yerevan. It was very interesting for me to learn about analyses carried out for the determination of positive ALT blood and because of this (aryan khodanoum(?)). I have never encountered a case in our lab of positive ALT blood. This does not mean that we never had such a case but that we need to carry out the proper procedures and ensure the results. In case of a positive identification special letters are sent to the individuals concerned giving them information, suggestions and providing them with guidelines of what to do and who to contact. This same procedure should be in place in Armenia as soon as it is possible.

The most important part of this training was the organizational and administrative aspects of the blood banking system. The treatment of individuals, donors, their safety (both staff and patients), and the general methodology and professionalism was impressive and I have made a point to try my best to establish such mechanisms and procedures within our “Sarko Tilkian Blood Services Center”. Copies of all the literature and the SOP’s are with me for proper implementation in Yerevan. Moreover, the transportation

system used and the blood storage and proper handling equipment utilized inside the bus are also applicable to our blood center. This type of facility ensures the safety of the transported blood and eliminates numerous potential hazards related to improper blood transportation. Even though the San Bernardino-Riverside Regional Blood Bank is a public organization its operation is flawless and smooth unlike our administrative procedures and mechanisms.

**Training in the Red Cross Blood Bank**

The Red Cross Blood Bank has several features that are useful for our applications. Namely, their mobile and stationary collection and storage facilities should serve as models to initiate in Yerevan. They have about 15 mobile and 4 stationary collection centers. The methodology used to calculate the number of blood units necessary at a given time for emergencies and normal use is fascinating and should be applied in Armenia. I was acquainted with the other organizations that the Red Cross works with and coordinates blood donation/ collection activities and its relations with the AABB and the FDA. I attended several lectures organized by the Red Cross on blood banking and administrative issues and collected literature and data that will be very useful in Armenia.

In conclusion, the training and the educational aspects of my stay in Los Angeles will have a immeasurable impact on me and hopefully will be positively reflected in the administration, procedure and execution of blood banking services offered in the “Sarko Tilkian Blood Services Center”. More importantly, what I learned will not only apply to our center but to other representatives of our blood banking community in Armenia. I will put my best efforts forward to try to establish world class standards in the blood banking systems all over Armenia.

My deepest gratitude goes to the Board of Directors of ARPA Institute and the directors and staff of the UCLA, San Bernardino-Riverside and the Red Cross blood banks. I hope my training will bear fruit in a short period of time.

ARPA Institute  
P.O.Box 33603  
Granada Hills, CA 91344

BUILD RATE
US POSTAGE
PAID
PERMIT NO.
98765

ADDRESS CORRECTION REQUESTED

Mailing Address  
Street Number and Name  
City, State 98765-4321

