

## SCIENCE AND SECURITY

### *“Child has the right to be defended since embryo”*

At present it is doubtful that development of science is approaching its top heights. Particularly usage of gene engineering makes it possible to create a new human being. Today there exists a method for artificial fertilization and the newborns are already in evidence. In the XX century we became witnesses of human being's stepping out of the rocket into the space and even visiting other planets.

However it does not mean that science is developing in such a way, that every one can equally understand its development in different branches.

Let me explain how I personally interpret science and security.

First of all development of science should be based on the maintenance of bioethical standards.

Secondly, science and security must be determined together with social-economic and ecological environment. Together with each of these two factors science may have both positive and negative sides. Thus, in my opinion, science of the XXI century should serve the mankind at high level of urbanization, safety of each citizen of this country and carry on preventive measurements against possible negative influence.

Proceeding from the above-said our intention was to discuss several important topics regarding health care in order to carry on necessary preventive measurements.

For estimation of situation in public health in the region it is necessary to analyze data of separate groups of population: the I group comprises data about children's health. In this group death-rate of newborns and children aged 5 years are important. Neonatal mortality, especially at earlier stage, determines a general level of newborns' mortality. It is clear, that in those countries, where mortality of newborns is high, its decrease may be achieved by reduction of mortality level in newborns, while decrease of mortality in newborns is achieved by attenuating of neonatal mortality level. While estimating children's health it is necessary to consider children's nutrition, including nursing during the first year of life and deficit of microelements in children's feeding; children's diseases (their course). All above mentioned indices depend on amount of the needed bed-places for children in hospitals, which should be considered together with social-economic and ecological conditions of the region.

At the same time, mortality rate in mothers, children immunization, carrying out preventive measures against tuberculosis and HIV/AIDS stipulate state of infant health.

Currently our research group conducts the project "Role of viral pathogens among infants with systemic infections" supported by the Georgian Research and Development Foundation (GRDF). Our US partner is the research group at the Department of Microbiology, Virology, Immunology and Molecular Diagnostics of the School of Medicine, University of Pittsburgh at Magee-Women's Hospital.

In parallel we are implementing the diagnostic and preventive measures for such an important infection as one induced by Human Immunodeficiency Virus (HIV). Until now in Georgia this infection was

not seriously considered in paediatric clinical practice. Our activities in this field give us opportunity to perform the early diagnostics of this infection and through this contribute to the prevention of the HIV epidemic in our country.

Since coming into force of convention of children's rights up today there has been some progress in the defence of children's rights. Some important steps have been made. A new legislation was developed with more refined international standards, such as additional proceedings of the convention of children rights about trade with children, children prostitution and pornography, use of children in armed conflicts. Highly important are the rights of children in conflict zones and I can't help dealing with it on the example of Georgia.

Demolition of the USSR and regaining of independence of Georgia have brought to its population political disorders, civil war and disorganization of economics. As a result of conflicts and separative movements in South Osetia and Abkhazia there took place fierce struggles and processes of forced migration. At present, as is known, Abkhazia and South Osetia are governed by *de facto* separative governments, which are not recognized by the International Commonwealth.

It is important that problems concerned with health, nutrition, education, as well as to defence and development of children are more acute in the zones of conflicts than in other regions of Georgia. The International Commonwealth had better expand its own role in these zones for solving the problems of defence of children's rights.

And indeed "Child has the right to be defended since embryo".

One of the main determinants of health is also a way of life, which consists of feeding, physical activity, smoking, alcoholism, drug addiction-toxemia.

With the support of UNICEF we have fulfilled a project "Social-psychological, medical-prophylactic and rehabilitation measures of children and adults in Penitentiary Institutions", one of the main goals of which was the study of drug addiction and toxemia problems in above mentioned contingent.

Data of clinical-laboratory and instrumental investigation in 417 children and adults have been analyzed. Questionnaire for Darvy and Bass aggression investigation, Shind test, Loosher colour test were used which permit to create a perfect "psychological portrait" of under age criminals with recommendations having proper practical significance. In future the latter will be a basis for creation of behavioral prophylactic model having a harmful influence on the society and on themselves.

Results of investigations carried out were analyzed by means of modern computer programs, involving psychological test-questionnaires and drawings in crayons.

Analysis of data obtained has shown that:

1. In children and adults of such category we deal with yet unformed person, subjected to definite changes.

2. While considering obtained results the I, II and III necessary stages were outlined, where:

The I stage stipulates pretrial period.

The II stage stipulates measures to be taken during trial.

The III stage – after being sentenced.

Most children formally refuse the fact of smoking, hashish and glue tasting, but it is not true. The majority of them before the arrest used different toxic substances (glue, petroleum), which need a great attention at the I-II-III stages.

Thus, investigations carried out have shown that there is a necessity of taking prophylactic measures against toxemia and drug addiction in children and adults in order to avoid formation of groups of persons committing a criminal offence.

Taking into account the fact, that the way and conditions of life, environmental and genetic factors have a great effect on human health, while share of health defence is only 12-14%, a great attention of WHO to the problems of environmental and health defence becomes more comprehensible.

concrete priority factors of the environment, particularly:

**Water.** Problems of improvement of water-supply of populated places as well as questions of sanitary state and measures for prevention from pollution of sea-side regions and other recreation objects.

**Air.** Degree of atmospheric air pollution of populated places and sanitary defence measurements.

**Stable debris and soil contamination.** Questions of chemical safety and defence of the environment (soil, air, water) of inhabited places from domestic agricultural and industrial toxic debris.

**Food-stuffs.** Measures for reducing risk of influence on health; state conception of safe feeding of population is presented.

**Ionizing and non-ionizing irradiation.** Radiation background. Sources of ionizing and non-ionizing irradiation existing in the country. Measures to be taken.

**Natural calamities and industrial accidents.** Topics of readiness for expected natural calamities and industrial accidents as well as readiness for prophylaxis and their liquidation.

**Industrial and domestic environment.** Labor conditions of employed population, prophylactic measures for professional diseases, traumatism and poisoning; Creation of physical, social and psychological environment desirable for health in inhabited places.

**Towns and large populated places.** Hygienic-ecological problems created in big towns, ecopathology with preventive measures.

Temperature of the environment - In the XXI century a great attention should be devoted to the problems of global heating, resulting in natural calamities and spread of different diseases. Therefore, measures against expected epidemic should be taken.

Accomplishment of above said may be possible only on the strength of cooperation and intersector cooperation of relevant ministries, departments, institutions, self-governmental institutions and boards of administration and non-governmental organizations with a broad participation of population. A special role must be played by self-governmental institutions and boards of administration, which according to recommendations of WHO must elaborate and accomplish plans for regions and towns, separate projects for

improvement the environment and public health. In order to realize concrete priority measures in most countries (especially, in the post soviet space) taking into account a complicated social-economic situation, it will be necessary to search different sources for financing, including assistance of international organizations, funds and donor countries. As to our region, it is necessary to have close contacts with South Caucasus and the Black Sea Basin countries, first of all to solve such problems as water and health, contamination of the Black Sea, problems of the Mtkvari river basin, etc.

Let me finish my report by the words of Catholicos-Patriarch of All Georgia, His holiness\_ and Beatitude, Ilia II:

“Life of human-being is an examination. It is suffering and we must endure it with dignity. Every human being created by the God is an image (icon) of Him, but we must remember that human being is always followed by a sin committed by Adam and Eve. A human being is helpless and he needs the grace of holy spirit; he needs help of church as it is the strongest ecclesiastical force; church is the abode where a human being gets grace of holy spirit. That’s why our ancestors blessed each other so “Rejoice on earth and in heaven“. The only condition of this appears to be closeness to the Lord, fulfillment of His supreme will. We must hasten to do good, as nobody knows about that wonderful and secret day when a man will appear before the Lord, kindness done by us goes to the Lord”.

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