

Biosafety and Biosecurity: from Soviet Past to Global Community

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Effective implementation of biosafety and biosecurity measures can contribute significantly to minimizing the risks posed by natural, accidental and deliberate disease and to minimizing the potential for the misuse of life science research.

Though end of the Cold War and collapse of Soviet Union had reduced versatility of the world from the point of view of biosafety/biosecurity, but there still are "hot points" remaining, and, though the general principles of biocontainment, safe laboratory practices, biosecurity, are similar globally, there still are differences in approaches.

As I come from Soviet Union, and represent former Soviet Anti-Plague system, which was unique structure carrying out not only on plague, but other especially dangerous infections too (like tularemia, anthrax, brucellosis, etc.), and later I had chance to get acquainted with western style of work, I can see what the similarities and the differences are. Besides, I can see how the different states of FSU develop their policy and strategies in the field of biosafety and biosecurity.

The first stage of independence of was extremely complicated for practically all of FSU republics. This was the time of economic difficulties, when no state funding was available for normal functioning – purchasing materials, transportation expenses, salaries for personnel, etc. As for Georgia, here the situation was even worse, because there were disastrous failures in electricity and gas supply, and the fact, that unique collection of the especially dangerous pathogens of the National Center for Disease Control and Public Health (NCDC) of Georgia, former Georgian Anti – Plague Station, survived in those years, is the result of heroism of its staff.

During mid 1990's the "iron curtain" was ringed up, and the aid from western countries started coming, aiming to deepen cooperation, transparency, and trust, potentially leading to progress, and, most important, redirection of so – called Soviet "former weapon scientists" – not only those who had worked on production or otherwise using bioweapons, but those who have expertise in this field too.

It must be mentioned, that Soviet legacy sometimes, in some of former republics, did not give full scientific freedom to the "focus group" to implement projects which were necessary for improving the

field, and engage weapon scientists. And the reason not always was managing science, often it was due to remnants of the system, when there was distrust and fear.

In Georgia, it must be said, that there were no such difficulties, but, during the last decade, there was dictatorship from the government (which was replaced during recent election), and not always right decisions we made, often opposing to donors' wills. Though financial support from western countries was devoted to those areas of public health that needed improvement.

To come back to the deficiencies of post – Soviet era, the need for improving the legislation in the field of biosafety and biosecurity was evident, as most of former Soviet republics continued to abide by old Soviet regulations in handling dangerous pathogens: (1) the Decree of the Ministry of Health of USSR "Concerning Rules of Registration, Containment, handling and Transfer of Pathogenic Bacteria, Viruses, Rickettsia, Fungi, Protozoa and others, also bacterial Toxins and Poisons of Biological Origin" approved by the Ministry of Health of USSR, and (2) the "Instruction on Regime of Control of Epidemics while Working with Materials Infected or Suspected to be Infected with Causative Agents of Infectious Diseases of I-II Groups" approved by the Ministry of Health of USSR, both issued in late 1970's.

Human resources have the most important role when you deal with EDPs – personnel reliability, its qualification, attitudes towards newly introduced in newly independent states personal protective equipment, etc. Highly experienced old staff of former Soviet Anti – Plague system, who were used to work with EDPs open – bench, and relying on good microbiological techniques, prefer to go on the same way, Young good specialists do not eagerly join institutions working with pathogens in these countries, the problem of brain drain is acute.

International organizations, like World Health Organization, using its mechanism of International Health Regulations (IHR), along with Biological and Toxic Weapons Convention (BTWC), and other treaties can be important tool for improving the situation in the post Soviet space, and build confidence between east and west.

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