

***Dr. Gennady Pakhomov, formerly Chief of Oral Health of the World Health Organisation, shows how oral health in the Russian Federation mirrors political and economical stabilization***

**Prior to 1991**

Before the collapse of the former Soviet Union in 1991, the total number of dentists in all fifteen Republics was approximately 140,000, working in about 1,500 stomatological polyclinics (clinics from 10 to 100 or more dental units) or in one-unit clinics at schools, factories or other institutions. Annually, about 350,000,000 visits to dentists were officially registered. With the exception of clinics for governmental employees which were equipped with Western dental units and materials, most dental equipment and materials were locally produced. Permission to purchase dental equipment abroad was given exclusively by the Central Government.

**Failed Fluoride Policy**

Although many Soviet Government decrees regarding improvement of oral health were produced, most of them remained on paper. Water fluoridation represented one of the most typical examples. The use of fluoride was officially recognized in the former Soviet Union as an important measure against dental caries. In the 1960s, throughout the whole country, fluoridation plants were built in more than 140 cities. Only higher concentrations (1.2 ppm/L) were regularly controlled by responsible agencies. Chief Dental Officers who insisted on the introduction of water fluoridation did not have any power to influence those who were responsible for the water supply and so water fluoridation was slowly discontinued without any impact on dental caries prevalence.

**Decline in Life Expectancy and Population Health**

In the early 1990s, political uncertainties and the severe economic crisis in the Soviet Union had a negative result on the population's health. The life expectancy rate declined to the lowest level ever, as the World War II. National Health Care System had collapsed, and local health departments were running under their own momentum.

**New Approaches to Health Care Development – including Oral Health**

Ironically, this crisis also became a starting point for the implementation of new approaches to health care development, including oral health. In 1992, the Russian Dental Association (RDA) was established and effectively became an influential organization in all aspects of national oral health development, including communications with international organizations such as the FDI World Dental Federation, the International Association for Dental Research (IADR), and the International College of Dentists (ICD). Approximately 50% of Russian dentists today are members of the RDA (1)

### **Recommendations for Radical Reforms in Dental Education**

It is well known that dental education is a key element in the delivery of an effective oral care service. In February 1992, the World Health Organization (WHO) and the ICD coordinated a visit by a group of international experts in dental education to three representative dental faculties in Belarus, Latvia and the Russian Federation. Following the visit, the same group of experts convened a workshop in Moscow. While expressing their admiration for the teaching staff who had to work under extremely difficult conditions, they made the following statement:

*“until some of the fundamental educational flaws are addressed and radical revision of the clinical and educational procedures carried out, it would be a waste of resources to correct the physical problems”.*

The major problems were listed as follows:

- Outdated equipment and shortage of dental materials, including local anesthetics, resulted in all patients and children being treated without local anesthesia;
- Too much emphasis laid on temporary restorations and too little on planned comprehensive treatment;
- Some procedures were deleterious; many patients might have been better off had no treatment been carried out;
- Some approaches in restorative dentistry and endodontics did not appear to follow currently acceptable principles of clinical practice;
- A lack of cross-infection control throughout the clinics;
- An excessive number of students appeared to be trained in poor facilities and with old-fashioned equipment;

Based on these observations, a set of recommendations was prepared on education, oral health care, staff development, priorities for treatment of the individual patient and designated centres for innovation.

### **Ten Years On – Some Changes for the Better**

Almost ten years have passed since the above meeting of the WHO/ICD experts in Moscow and although not all of these recommendations have been fulfilled, many positive changes in oral health have occurred in Russia during this time.

Firstly, a national oral health survey has been conducted using WHO standard methodology (2). Data from this survey have indicated that for the first time, the level of dental caries among the entire population has either stabilized or decreased. This could be attributed to a wider use of fluoridated toothpaste. Toothpastes which dominated the Russian market 10 years ago were almost all locally-produced or Bulgarian-made and did not contain fluoride. Presently, all major international toothpaste manufacturers are successfully selling their products in Russia.

As yet unpublished sociological studies being conducted in various parts of the country have confirmed that more than 80% of the population understand the importance of fluoride for dental caries prevention.

### **Russian oral health profile (2000)**

<b>General information</b>				
Population size		145.5 million		
Life expectancy		67.3		
Birth rate		9.4		
Death rate		13.9		
Population growth		-0.35%		
Population below poverty line		40%		
<b>Dental caries prevalence</b>				
Age	Year	DMFT		
12	1986	3.6		
12	1999	2.9		
35-44	1999	13.1		
65>	1999	21		
<b>Periodontal disease prevalence (CPI,%)</b>				
Age	Healthy	Bleeding	Calculus	Pockets
15	43.2	31.1	24.5	1.2
35-44	13.8	11.5	47.1	27.7
<b>Oral health personnel and oral health service</b>				
Dentists (number)		47,400		
Therapists (number)		18,558		
Dental technicians (number)		20,550		
Dental hygienists		Intake in 2000		
Dentists and Therapists (population ratio)		1 : 2.250		
Number of visits to dentists per year		145.5 million		
Beds in hospitals (number)		6,694		
Inpatient numbers (maxillo-facial surgery)		189,690		

### **On-Going Poverty and Continuing Poor Oral Health**

A large proportion of the population cannot afford regular use of fluoridated toothpaste, the price of which is considerably elevated due to high governmental taxation. Unfortunately, the country's macro economy has not yet improved sufficiently in order to implement a national programme of water or salt fluoridation. ***Thus, the same study referred to above has indicated that more than one third of all visits to dentists, 48.5 million in one year, were due to severe toothache demonstrating again the low quality of dental care and lack of oral health education among many of the people.*** This is one of the reasons why health administrators keep more than 6,500 hospital beds for dental patients. A large percentage of the 200,000 dental in-patients admitted per annum present with maxillo-facial infection due to complications arising from dental caries.

### **Progress in Dental Education**

Some progress has been achieved in dental education. Public health and prevention have been crystallized within the curriculum. The negative attitude of many of the faculty members towards prevention has been reversed, although it has not yet become an integral part of the training programme in all disciplines from oral surgery to paediatric dentistry.

A reduction in the number of dental students was not achieved. On the contrary, there are now 30 dental faculties instead of 28 ten years ago. A modern Centre for Innovation in Dental Education is functioning, but only in Moscow. The remaining faculties sometimes lack even the most basic dental materials and equipment.

### **Conclusion**

In conclusion, although many of the recommendations made by the WHO/ICD experts in Moscow 10 years ago have not yet been achieved, it is obvious that the recent positive political and economical developments in the Russian Federation have created favourable conditions for further implementation in the near future.

Our Russian colleagues are deeply grateful to the ICD for their expert input and continuing involvement with the ongoing dental developments in the Russian Federation over the last ten years. Long may it continue!

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**Geneva**

### References:

1. Leontiv V.K. (2002) Dentistry in Russia: state of the art and prospects for development. (Progress Report at VII All-Russian Congress of Dentists). *Stomatologia*, 1, 75 -83
  2. Oral diseases prevalence among population in Russia. (1999) Edited by Kuzmina E.M. Moscow, 228 p
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Dr. Gennady Pakhomov was Chief of Oral of the World Health Organization (WHO) from 1995 to 2001. During this time, he had responsibility for the development of the entire Global Programme on Oral Health which involved an analysis of the global situation on oral health, and the promotion of oral health through the introduction of demonstration projects on basic oral care. In response to requests from project staff in several countries, Dr. Pakhomov is continuing as an international consultant. He is also now special adviser for the Russian Dental Association on reforms and research projects.

WHO Oral Health (ORH) publications produced over the last five years include:

- the use of fluoride in community programmes;
- atraumatic restorative treatment of dental caries;
- dental amalgam and alternative direct material.

CAPP Web-site – Country/Area Profile Programme: ([www.whocollab.od.mah.se/index](http://www.whocollab.od.mah.se/index))

- In addition to the regularly maintained the WHO Global Oral Data Bank ([www.who.int/m/topics/oral\\_health/en/index](http://www.who.int/m/topics/oral_health/en/index)), the WHO Oral Health Country/Area Profile Programme (CAPP) was established on the Internet during Dr. Pakhomov's time. More than 30 WHO Collaborating Centres all over the world are co-ordinated by the WHO ORH.

