Russian report: priorities for the new health minister

Michael Ryan

The hour brings forth the man. In mid-November 1991, at a time when acute shortages of medicines and basic medical supplies confronted an already disintegrating health service, a doctor of high distinction accepted nomination for the now unenviable post of minister of health for Russia. The exceptionally demanding burdens of that office have been assumed by Andrei Ivanovich Vorobyov, member of the Academy of Medical Sciences.

Here a brief biographical sketch is appropriate. Born in 1928, Vorobyov graduated in 1953 from the prestigious 1st Moscow Medical Institute named after I M Sechenov. Beginning his professional career on the bottom rung of the ladder, as a sector (uchastok) doctor, he had an early introduction to administrative responsibilities since his job description soon included the management of his rural district polyclinic. Subsequently he advanced to head the clinical department of the Institute of Biophysics—a major research unit—and the Centre for Assistance in Radiation Accidents. After the nuclear disaster at Chernobyl (26 March 1986) he was in charge of diagnosis and treatment of patients suffering from radiation sickness. From 1987 he held the post of director of the All-Union Haematological Research Centre.

The details given above are taken from the first feature article about Academician Vorobyov to be published in *Meditsinskaya gazeta*.¹ It makes no mention of him having been a member of the Communist party and thus eligible to have his career furthered by means of the party's influence over appointments to senior posts throughout the economy. But silence on that point is unsurprising since by then, "the leading and guiding force of Soviet society" had been suspended in the aftermath of the August coup attempt, later to be legally banned. What the newspaper does imply is that the minister has unimpeachable political credentials for a place in a post-Communist government: speaking on Radio Russia during the coup attempt, he had courageously denounced its instigators and called for the consolidation of democratic forces.

For the new times

As the hero of Russian democracy, President Boris Yeltsin has been able to reject the former centralised "administrative command" system of planning and set in train a thorough reorganisation of ministries to meet the requirements of what is termed "the period of radicaleconomic reform." The health ministry formally ceased to exist at the end of November 1991, being immediately re-established as part of the new machinery of government. (It lost the division devoted to social security, which became the new Ministry of Social Protection of the Population.) Incidentally, it was made the residual legatee of all property and financial and other resources of the former USSR health ministry, together with subordinate "enterprises, organisations, and institutions."²

Inherent in the demise of the old ministry was a rejection of the political and administrative philosophies which had informed its activities. The validity of that assessment is borne out by the words of Vorobyov to his interviewer. The minister declared: "We have finished with the pyramid of power and

system of dictatorship, the essence of which was the will and intention of one person."

Turning from past to present, the minister went on to give some indication of the role which is being evolved for his born-again department. A major element in its activity will be the primarily regulatory function of setting minimum standards which must be met by local health institutions. The critical instrument of control will be the power to license newly opened units for medical and pharmaceutical services. According to Vorobyov, "permission will only be granted where there is an appropriate level of equipment and [staff] qualifications." Also envisaged, apparently, is some scheme of long term monitoring of the units' activities to secure the highest possible performance.

The ministry's regulatory duties, it should be noted, will be carried out in the circumstances of a health care "mixed economy" which has been emerging throughout Russia. When the death throes of state socialism began a few years ago it became legal for medical staff to practise on an independent, fee charging basis, firstly from cooperatives and later from purpose designed premises in unambiguously private ownership. Their numbers, though increasing, must be small compared with the units constructed by public authorities under the Communist state. These are now the property of local authorities or—to use current terminology—municipalities.

Unless expectation is confounded the pattern will be complicated further by the emergence of a third category. This will come into being in connection with the introduction of "insurance medicine" under the law "concerning medical insurance of the citizens of the RSFSR," which Boris Yeltsin signed on 28 June 1991. Apparently, the new insurance companies, in addition to concluding contracts with existing health care units, will be free to establish their own hospitals, polyclinics, and so on. Incidentally, on the evidence of his interview with *Meditsinskaya gazeta*, the new minister is less wholehearted about this scheme than his predecessor, V I Kalinin, who masterminded it. The essence of Vorobyov's position seems to be the entirely cogent contention that insurance constitutes just one organisational means among several for supplying medical care—and that it should not be perceived as the ideal against which all other schemes must be deemed inferior.

The minister predicts that in certain respects—he specified furnishings and food—differences will be evident between the three categories of private, municipal, and "insurance" units. However, he showed that he was well aware of the most objectionable disadvantage of plural ownership by identifying the need to forestall the emergence of first and second class services in the management of illness. "The quality of medical care must be one and the same," he declared, "and come up to the highest general standards."

Demographic imperative

Whatever measures may be worked out to achieve that requirement in the future, the minister and his officials have to deal as best they can with consequences for their sector of Russia's here and now crisis

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situation, which the media have made familiar to the world. And the top priority in health care is clear from an account of Vorobyov's first meeting with the ministry's kollegiya (top policy making committee), which took place in December.³

"There is no finer investment for any community than putting milk into babies." So said Winston Churchill during the second world war, a time when the very low birth rate in Britain lent added force to that humane sentiment. In contemporary Russia a similar demographic situation also provides a powerful *raison d'état* for attempting to protect the health of every child who is born alive, and that point would not have been lost on the kollegiya as it discussed a strategy for reducing the infant mortality rate. That Boris Yeltsin himself is alert to the urgency of this issue seems clear from the presence there of E Lakhova, his special adviser to the government on maternity and childhood.

At 17.4 per 1000 live births in 1990, Russian infant mortality is tragically high by the standards of most Western countries; it is even higher if calculated by the normal method (see below). However, in fairness it should be said that a few years earlier the Russian health ministry had elaborated a programme to improve the health protection of mothers and young children and reduce infant deaths. Among other measures the programme entailed the commissioning of new units. By December 1991 several regions had acquired specialised centres for paediatric diagnosis, "reanimation consultative centres," medical genetic counselling, and what sounds like a form of health visiting service (*sotsialni patronazh*).

The report in *Meditsinskaya gazeta* ignores the problem of proving a causal relation between this programme, which started in 1989, and an improvement in infant mortality. But the figures did improve—from 18.9 to 17.4 per 1000 live births during 1988-90. Moreover, the rate for the first nine months of 1991 fell further to 16.8. Infant mortality varies very substantially with geographical location: in 1990 it ranged from 12.7 in North Osetia to 33.1 in Tuva (with few regions having a rate higher than 20 per 1000 live births). Such differences provide the rationale for a cardinal feature of the programme—namely, its emphasis on taking proper account of special circumstances in the various regions of Russia.

The report also itemises three elements which account for the overall decline in infant mortality: deaths from infectious diseases (down by 23%), diseases of the respiratory tract (down by 30%), and congenital abnormalities (down by 5.4%), respectively. Those figures clearly call out to be located in a context of cause specific death rates. So the table gives the relevant data for 1989, which are the latest set available to me.

Concealing nothing

Several important points are implicit in the table. Firstly, the fact that infectious and parasitic diseases account for 15.1 deaths per 10000 live births can be seen as a measure of the developmental gap between Russia and most high income countries with respect to domestic hygiene; environmental health standards in general; and, presumably, take up rates for immunisation. The even higher mortality from acute pneumonia implicates not only conditions in the home, such as overcrowding, but also serious deficiencies within the health care system. The need for massive improvement in the maternity services is undeniable when, as can be calculated from the table, almost 44% of the deaths in children aged under 1 year are due to conditions which arise in the perinatal period; among the more common are birth trauma, intrauterine hypoxia, and asphyxia at birth.

Another factor implicated in the high perinatal mortality rate is a workplace environment which all too often can be injurious to pregnant women and their unborn children. The sheer scale of this problem becomes evident from the report of the kollegiya's meeting; well over one and a half million women (1 710 800) are employed in industrial activity at enterprises which do not conform to the safety at work regulations. The corresponding figures for the construction industry and transport are 111 200 and 80 200 respectively. In addition, three quarters of a million (751 600) women are employed in jobs officially designated as hard physical labour.

Although the picture outlined above is far from novel for Russia, the harmful consequences of unhealthy and unsafe conditions of work have been exacerbated in recent times by the well known problems associated with the economic and political disintegration of the former Soviet Union. They help to explain why anaemias and kidney diseases have increased among pregnant women and why the proportion of "normal" births declined from 51.7% of all births in 1988 to 47.6% in 1990.

By making such data available to readers, the kollegiya tacitly accepted that morbidity and mortality statistics should not be kept secret however unfavourable they might be. And official willingness to have the whole truth made known was also illustrated by majority support for a historic proposal put forward by President Yeltsin's adviser. She recommended changing the basis of calculation of the infant mortality to conform to the method promulgated by the World Health Organisation. The certain consequence will be to make the rate for Russia even higher. (Davies and Feshbach, in a study exemplary for its rigour, concluded that the published figures needed to be adjusted upwards by 14.4% for accurate cross national comparison.)⁴

Range of constraints

That consequence, arguably, could strengthen the ministry's hand when dealing with regional and local authorities which are failing to play their part in implementing measures designed to reduce the loss of infant life. Given the present distribution of power, the centre cannot force those agencies to support the ministry's programme with specially earmarked funds—and none have done so as yet. The austerity budgets which are currently being drawn up on a quarterly (not annual) basis seem unlikely to give this programme

Deaths in children aged under 1 year in Russia, 1989, by cause

	No of deaths	Deaths per 10 000 live births
All causes	39 030	178.0
Infectious and parasitic diseases	3 301	15.1
Intestinal infections	1 455	6.7
Sepsis	926	4.2
Diseases of endocrine system, digestive disorders, impairment of metabolism and immunity	252	1.2
Diseases of nervous system and sense organs	869	4.0
Meningitis*	332	1.5
Diseases of respiratory organs	6 221	28.4
Acute pneumonia	4 051	18.5
Influenza	255	1.2
Diseases of digestive organs	307	1.4
Congenital abnormalities	8 099	36.9
Spina bifida, hydrocephalus	805	3.7
Anomalies of circulatory system	3 358	15.3
Conditions arising in perinatal period	17 045	77.7
Birth trauma	3 019	13.8
Intrauterine hypoxia, asphyxia at birth	2 493	11.4
Accidents, murder, and other external causes	1 609	7.3

*Except when occurring in deaths from infectious and parasitic diseases.
Source: *Demograficheskii ezhegodnik SSSR 1990*:492.

substantial additional sums from central government funds.

Bringing the kollegiya meeting to a close, Academician Vorobyov apparently assigned a priority rating to three specific policies. The first is reconstructing the pathology and anatomy service from its present "ruined" state; the second is the further development of neonatology as a specialist field; the third entails improving the quality of nursing and midwifery services, especially in small maternity homes and hospitals.

On a related matter, it is interesting that a senior medical academic, Professor Gavryushov, spoke in favour of a radical reorganisation of training for paramedics (in Russian terminology, middle grade medical staff). What Professor Gavryushov had in mind was elevating the standards in existing "schools" for these categories of staff so as to reach the level of higher educational establishments in keeping, as he saw it, with the lead set by the West. The concept of benefits from educational investment also underlay the recommendation by another professor (Shabalov) to raise the level of medical knowledge among the population, beginning with schoolchildren. In a similar vein, he called for publication, at long last, of "the necessary textbooks and reference books on children's diseases and neonatology." Incidentally, given that very many Russian doctors have a reading knowledge

of English, it is especially appropriate for British medical schools and publishers to help in this matter. Such action has an immediate practical utility and, potentially, a transformative impact in the longer term.

Achieving significant reductions in morbidity and mortality in Russia depends, to some extent, on obtaining medical supplies, technology, and pharmaceutical products from the West. In this connection I conclude with a quotation from the new minister about distribution of purchases from abroad. He emphasised the need to take into account the interests of regions which were particularly remote from Moscow (and hence less well placed to exercise influence on central decision making). "There are no second class persons," he declared, "and there must be no second class medicine." It is surely evidence of his outstanding calibre that, confronted by a sea of troubles, Academician Vorobyov can affirm such a humane and egalitarian ideal.

1 Borodin V. S piramidoi vlasti pokoncheno. *Meditsinskaya gazeta* 1991 noyabrya 22:1.

2 Vedomosti S "ezda deputatov RSFSR i Verkhnoye Soveta RSFSR, 1991, 48, 1947-50.

3 Gadasina A. Pervaya kollegiya s novym ministrom. *Meditsinskaya gazeta* 1991 dekabrya 20:1-2.

4 Davis C, Feshbach M. *Rising infant mortality in the USSR in the 1970s*. Washington: Bureau of the Census, US Department of Commerce, 1980:7-8.

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Lesson of the Week

Recurrent aspiration due to Arnold-Chiari type I malformation

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Even in the absence of prominent signs a neurological cause for recurrent aspiration should be considered.

Recurrent aspiration and dysphagia may be the only initial symptoms in an adult presenting with an Arnold Chiari type I malformation.

Case report

A 35 year old man had a history of seropositive rheumatoid arthritis and partial villus atrophy treated with a gluten free diet. In 1981 he was admitted with pleuritic chest pain and a pleural rub, which resolved with antibiotics. In 1987 he presented with fever, rigors, right sided chest pain, and breathlessness after inhaling a pea 48 hours previously; the pea was coughed up in the hospital. Chest x ray films showed some consolidation in the right lower lobe; neurological examination was unremarkable. In 1988 he was admitted with cough, dyspnoea, and pleuritic pain after inhaling a walnut. During fiberoptic bronchoscopy the competence of the larynx was questioned, but review by the otolaryngology consultant found no structural disease of the pharynx and larynx and, in particular, no evidence of rheumatoid involvement of the arytenoids. In 1989 he was referred with wheeze, cough, and breathlessness three weeks after inhaling a piece of apple and a pea. There was partial collapse of the right lower lobe of the lung, and two further bronchoscopies were required to remove pieces of apple. He was now noted to have a reduced "gag" reflex and was referred for a neurological opinion.

Specific inquiry revealed a 10 year history of coughing while eating: the patient often felt that food went "the wrong way," causing cough and shortness of breath. Food would seem to stick in the throat and he had to be "careful" while eating. He would sometimes wake in the night coughing. Examination

showed a short neck, low hairline, and midthoracic scoliosis. There were changes of rheumatoid disease in the hands, wrist, and feet. His voice was dysphonic with a "wet-hoarse" quality associated with risk of aspiration.¹ Corneal reflexes were depressed, and the palatal and pharyngeal reflexes were bilaterally absent. The tongue was normal. He had a mild spastic quadriparesis with brisk tendon reflexes, an extensor right plantar response, retained abdominal reflexes, and normal sensation.

Investigations showed a positive rheumatoid factor; results of the Venereal Disease Research Laboratory test were negative. Overnight oximetry and arterial blood gas measurements were normal. He swallowed 150 ml of water in 35 seconds (normal range for age and sex 2.5-15 seconds²), during and after which he coughed, suggesting possible aspiration. Indirect laryngoscopy showed a partial right vocal cord paresis. Videofluoroscopy with propylidone (Dionosil) showed laryngeal penetration by the contrast medium, incomplete closure of the larynx, and some pooling in the valleculae. Computed tomographic myelography and, later, magnetic resonance imaging showed herniation of the cerebellar tonsils through the foramen magnum to the level of the C2 vertebra (figure), a normal fourth ventricle, and some suggestion of compression of the neuraxis at the cervicomedullary junction: no syrinx was seen and there was no hydrocephalus. The patient underwent a foramen magnum decompression with removal of the arch of C1 without complication. Subsequently he noted an improvement in the symptoms of coughing at night and while eating; eight months after surgery he had not had a major episode of aspiration. Repeat videofluoroscopy showed an improved swallow without pooling in the valleculae.

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