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New Catalysts for Change NETWORKED HEALTHCARE SYSTEMS Panel

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St. Petersburg, Russia 2013

Moderator:

<u>Mark Kurtser</u>, Chairman, Presidium of the Moscow Society of Obstetricians and Gynecologists; Chairman of the Board of Directors, Group of Companies Mother and Child

Panellists:

Nicole Bricq, Minister for Foreign Trade of France

Arjan de Jongste, Chief Executive Officer, Russia and CIS, Philips

Vasil Latsanich, Vice President of Marketing, MTS

Simon Matskeplishvili, Chairman of the Echocardiography Section, Russian

Society of Cardiology; Chief Scientific Researcher, Bakulev Scientific Center for

Cardiovascular Surgery of the Russian Academy of Medical Sciences

Robert Puskaric, Head of Region Northern Europe and Central Asia, Ericsson

Andrei Yurin, Deputy Minister of Healthcare of the Russian Federation

M. Kurtser:

This session is dedicated to healthcare issues, which are very important in any country, and particularly in Russia today. I think that the discussion will be an interesting one. Government ministers, managers of big companies, representatives of sectors working with modern technology and doctors are all taking part to exchange opinions about healthcare systems.

An unprecedented situation has emerged in Russia: All participants in the treatment process, including the healthcare employees, want change. The state has offered colossal 10-year tax breaks to people investing in medicine. For two years now, all medical organizations, regardless of their form, have been exempt from capital gains taxes and VAT. These are excellent terms. Patients are tired of the unresolved issues in healthcare, and they want a different sort of medical system. The state understands that, and so it is instituting modernization and launching different national projects. Physicians also want medicine to change. They watch the television show *House* and see how doctors work in other countries. I think that our session today will help us answer many questions.

I will give the floor to Andrei Yurin, the Russian Federation's Deputy Minister of Health, who I would like to ask the first question of today's session. These days, besides state-funded healthcare, there is also private care. A law on public-private partnerships has been adopted, and we now have the ability to license private hospitals. The question is: will this lead to a surge in new investment in medicine? Please go ahead, Mr. Yurin.

A. Yurin:

Good afternoon.

In recent years, the Government of the Russian Federation and the country's leadership have been paying very serious attention to developing healthcare. Additional resources have been targeted to the sector, most of all for providing medical care under the mandatory medical insurance programme. A decision has been made to expand contributions into the mandatory medical insurance system to

2% of payroll, and this has yielded an annual augmentation of resources equal to RUB 200 billion.

Naturally, resources are needed not just to pay for on-going medical services; we also need to replenish fixed capital assets. I will give you two numbers. Over the past 10 years, the rate of depreciation of fixed assets in the healthcare area has increased from 30% to 53%. In other words, the fixed assets created before the early 1990s need to be updated today. The mechanism that was applied in the past of investing government and only government resources is not going to work in this case, because the government simply does not have those kinds of resources. Therefore, if we want to replenish our fixed assets in a timely manner and advance the operations of medical facilities onto a qualitatively new level, we must make use of public-private partnerships.

What needs to happen in order for business to begin investing in medicine? We need a long-term agreement on payment for medical services, between the organizations that deliver those services and the state. Today, the Ministry is preparing changes of that type to the regulations, which will provide for those agreements to be in effect for longer periods of time. Right now the budget cycle is one year, although we are transitioning to a three-year budget. However, three years is not enough for an investor who wants major investments to pay off. We need a medical services tariff that looks at least five years ahead. We are preparing legislative proposals connected with the adoption of the public-private partnership law, under which an investor will be able to come into the sector on the basis of a public-private partnership, conclude a tariff agreement for a term of several years, and provide people with medical care on set terms, at a set volume, and at a set price. Based on that price, the state will compensate him or her for the cost of services. In that manner, the burden of replenishing capital assets will be the private investor's, and the state will guarantee him timely payment. That is what the Ministry is currently working on.

There is one more new idea that is becoming a part of the everyday realities of medical organizations, and that is outsourcing: the capacity for those working professionally in a given market, and not just the medical organization itself or its subordinate structures, to provide medical services.

And the latest new idea that is probably most in demand and most widespread in terms of the adoption of the new version of the law on mandatory medical insurance is that barriers preventing private medical organizations from entering the mandatory medical insurance system have been removed. Whereas previously that required special permission from the government agencies of the federal subject in question, today, with the aim of following the rules of competition, that restriction has been removed. The only thing necessary is confirmation of a licence to provide medical services.

The future services the Ministry is working to implement, and the introduction of private business to the medical services sector: all this is in demand today. Experience shows that when private medical organizations begin fulfilling the functions of ordinary district clinics, people have fewer complaints. We are examining that phenomenon very closely, but overall the trend looks fairly promising. We will continue to put these principles into practice, working carefully, deliberately, and cautiously, of course, in order not to deprive citizens of their right to free medical care.

M. Kurtser:

Thank you very much, Mr. Yurin.

I will give the floor to Ms. Nicole Bricq, the French Minister for Foreign Trade. We are very pleased that Ms. Bricq was able to find the time to participate in our panel and to speak on healthcare issues. I would like to hear from her what kind of trends are being observed in the healthcare sector in France today, what kind of possibilities exist for attracting private investment into the French healthcare system, and how she sees the prospects for investment cooperation between our two countries. Might there be a possibility of investing in Russia, or attracting Russian money in order to introduce French technology into Russian medicine?

N. Bricq (translated):

Thank you very much, Mr. Chairman, Mr. Deputy Minister, and ladies and gentlemen!

I very much wanted to represent France at this Forum, because, among other things, when I took my post last autumn, the Ambassador and I had a talk. We spoke about how today Russia is making efforts to modernize its healthcare system: in particular, it has adopted the Pharma-2020 strategy and is improving its mandatory medical insurance system. Naturally, we thought that we could help the Russian Government, which is now coming up against the problem of an aging population and which also has certain budgetary restrictions, as a consequence of which it is necessary to think about attracting private investment into this sector.

In France, such a partnership between the private sector and the government sector has been in existence for quite a long while. Of course, we have so-called university clinics, where scientific research is carried out alongside treatment, but there is also a developing network of hospitals in the cities and in rural areas. In the rural areas, we are seeing the creation of so-called Health Houses, where professional physicians come to provide quality medical services to the rural population. Furthermore, France has big companies producing quality pharmaceuticals: Sanofi, for one, which also has a presence in Russia. This sector, it seems to me, holds great potential for cooperation between Russia and France. Furthermore, we are starting to see technology parks in pharmacology and medicine, among other industries, that are acting in cooperation with university clinics and developing some very interesting products. Recently I visited the booth of one of these French technology parks at an exhibit in Chicago.

We would very much like to organize a two-way investment flow, France–Russia and Russia–France. Every time I meet with my Russian counterparts, we discuss the potential inherent in such investment. Naturally, there are obstacles along this path, but we are quite strongly motivated. We strive, firstly, to reduce state spending, and secondly, to provide our people with high-quality medical services.

There is a wide field for action here, given that we must provide these services in extremely diverse areas. A very pressing topic for us, for example, is the struggle with chronic disease and the problems of an aging population, despite a high birth rate in our country. Russia also needs a quality healthcare system. At the same time, we must always be aware of safety in medical assistance and take into account people's individual requirements.

With regard to money, the state may invest resources, but anywhere it invests one euro, we must receive two or three euro from private investors or local government agencies.

There is also much to be done in the information systems sector. We have French companies that are prepared to meet Russia's demand: for example, one affiliate of the Orange group, a big player on the telecommunications services market, including mobile services. The construction of technology parks and many other things have also been discussed.

I came to St. Petersburg along with Mr. David Sourdive, who will be coordinating all activities on our part and representing all the French companies, so that you may address your questions to a single person. I am also accompanied by the representatives of various companies who are able to set up turnkey hospitals, with all the necessary medical equipment, with everything they require.

So we have some very serious proposals, but we need to understand to what extent they meet your requirements. We would like to work on this together with the Russian side, together with you, Mr. Deputy Minister. Russia has a very great demand for high-quality medical services. I believe that we have good potential for cooperation, and that is what I have come here for.

Thank you.

M. Kurtser:

Thank you very much, Madame Minister.

Before giving the floor to our guests from the big international companies which facilitate the use of information technology in medicine, I want to offer the floor to

Simon Matskeplishvili, someone who I know personally. He is a wonderful cardiologist, professor, and doctor of medicine, who works in what is probably one of the best medical centres in Moscow, the Centre for Cardiovascular Surgery, headed by Dr. Bokeria.

I have several questions I would like to ask him. How are we getting on with the issue of education? What can be said about implementing modern technology developed in the West, and also in different regions of our own country? What ought the healthcare system to look like? How should we attract investment? I very much liked what Ms. Bricq said about how for every euro invested by the state, two or three euro of private investment must go with it. Is that possible in Russia, and if so, then in what areas?

S. Matskeplishvili:

Thank you very much, Mr. Kurtser, for inviting me to speak at such a distinguished Forum. It is true that we have been acquainted for a very long time, not least because all of my children were born in your centre.

As for the question you have just asked me, the answer to that is very important. There are changes taking place today in Russian healthcare, and we must make sure they go in the right direction.

When we talk about the US, France, Germany, or Israel, we never fail to note that healthcare is a priority in those countries, and that they have a very highly developed level of medicine. Today Russia has the potential to become that sort of country. People will be coming to us from abroad to obtain medical care. This is not a fairytale and not an illusion. Achieving this is totally possible, if we build a working system of public-private partnerships, and if we introduce outsourcing, as the Deputy Minister of Health was saying: medical centres will be contracting out a portion of their research or even treatment work to specialized centres. Of course, investment is very important here. Medicine is a part of the economy not just in the sense that it is a means of making money and filling up the budget. Medicine is a part of the economy in the sense that it protects people's lives and health.

I would like to touch on medical education. You mentioned the television show *House*. I remember that Dr. House has some knowledge in practically all spheres of medicine, that he has a very broad education. In our country, medical education has suffered, to a certain extent, and we also need investment in it, and not just in building and modernizing clinics that treat patients. I am talking about both undergraduate medical education and about postgraduate education. We can rely on the experience of many countries, including France itself, where they have the fantastic SAMU emergency medical service. The specialists working there are both emergency physicians and hospital physicians, so that there is a constant rotation of staff within that service. Their specialists constantly undergo professional development, which is very important.

As for our country, what I think will have a big impact on medical education will be having so-called simulation centres and information technology. The technologies are developing, and a large amount of content is now accessible in electronic form. If we do not make use of those achievements, then we will lag behind most Western countries. But there is a trend towards improvement. Simulation centres are emerging, and virtual education and so forth are becoming ever more widespread. It is important that the companies that produce medical equipment and medical supplies participate in the education process. Most physicians today, unfortunately, are not familiar enough with the products of well-known companies such as Philips, which is taking part in this Forum. If companies such as Philips, General Electric, Ericsson, and MTS participate in the education process, then they will be able to promote their products, and doctors, for their part, will find out about the latest achievements in medical science and technology and how to use them.

We must also encourage work on our own technologies and approaches to treating disease. In many areas of medicine – gynaecology, cardiology, heart surgery and neurosurgery – we have a unique wealth of experience. We ought to attract investment to develop our own technologies, while not neglecting the international trends. Investment in medicine and in medical education will then yield real benefits.

M. Kurtser:

Thank you very much for your speech, Dr. Matskeplishvili.

We have heard from executive branch officials and a physician. Now it is time for medical equipment manufacturers.

On our panel here, we have a representative of Philips, Arjan de Jongste, CEO for Russia and the CIS. I would like to ask him to discuss applications of the newest information technologies in medicine. For example, in our new Lapino Hospital there is a good deal of modern technology, mostly made by Siemens: machines for radiology, open MRI scanners, CT scanners, x-ray units, and so on. But we must understand very clearly that there are problems facing Russian healthcare that do not exist in other countries, including in France: problems connected with the enormous size of the country and the uneven distribution of the population. The job of the Ministry of Healthcare is to ensure that the quality of medical care is identical everywhere, both in the big cities in central and southern Russia, and in the small towns situated in eastern Siberia and in the northern part of the country. Here quality equipment plays a large role, but so does the possibility of arranging online consultations in which doctors from the large medical centres in the European part of the country can take part. That would be a great help to doctors conducting treatment on location. I am talking about telemedicine and also other communication possibilities.

Please go ahead.

A. de Jongste:

We are known in Russia for producing a lot of equipment. The challenges are very unique. If you take Russia, China, and India where the population is even greater and to a certain extent even poorer, and if you consider rural India, the real challenge is how to create access to healthcare. Solutions like hubs and telemedicine are a good way to do that.

However, that needs a lot of coordination between companies like ours with hospitals, authorities, and education. I think that is one of the magical, let us say,

'recipes' to join hands and start to build that step by step. But it is hard work. I think many of the speakers have pointed out that the first step is to deal with bringing the fixed assets in place. I think we should immediately take them to account in the next challenge, which is: once you have that infrastructure or once you have caught up in investment, how do you keep it affordable? Because we should all be aware that the global trends are not favourable in that sense. Age and population are factors. Between 2010 and 2050, the number of people over 60 will double to 1 billion. That is a global trend, but the same trend will be here in Russia. If you consider that as 70% of the running cost (and I take an average globally), you start to see the problem if you add that because as people age, they need to be treated longer and, therefore, the cost will further explode. In that case, I think the first challenge is to bring the infrastructure into place. The second step is not to shy away from investment and innovation and new technology. Innovation is a very good way to make sure that there is efficiency in the system because when you look at the running cost, that is not the investment; the investment is a lot of man hours – the manpower that is necessary for doctors and nurses to keep the system running on a daily basis.

Technology can also help in efficiency and reducing the needed level of specialists where we will have shortages at a certain point in time. In that sense, telemonitoring, remote access, and remote diagnosis are also elements of that. The other element is that you want to have procedures to discharge patients as quickly as possible, but you have to deal with aftercare which can also be done by telemonitoring.

Nowadays, you have machines that can monitor the concentration of blood thinners in the body for an indication of the condition of the patients after heart surgery. We did a study in the UK and we saw that telehealth systems can bring good results. We saw there that the number of emergency admissions was reduced by 14% thereby lowering the burden on the healthcare system. We saw that the bed days were reduced by 14%, and we saw that the mortality cases in that part of the phase of a patient were reduced by 45% as well. Those are all clinical numbers. We

should not forget that the freedom of the patient and the well-being of the patient is an element to be taken care of as well.

Philips, in Europe, set up a consortium with companies, hospitals, universities, and healthcare authorities to bring the best practices within Europe. And we could replicate that here in Russia and in other places. Scotland is participating. The Northern part of Holland is participating. Lombardy in Italy is participating and the Basque country and Catalonia in Spain.

We can think of other technologies to help, such as applications from smartphones. There is technology that can scan your vital signs without contact by looking at the camera. It can monitor breathing rhythms and blood pressure rhythms which are absolute building blocks for setting up a different healthcare system that does not burden hospitals and that makes it all affordable. I think the real lesson of that is that hand in hand with all stakeholders and then collectively step by step, pioneering in making those inventions and technology work is making real, meaningful innovations for society and people. Thank you.

M. Kurtser:

Thank you very much.

Certainly, our lives are changing quickly. We used to think that a telephone was just a telephone, but now it is not just a telephone, not even just a television, but also a camera, and a video camera, and so on. It turns out that a telephone can also be a doctor, or rather a device that registers vital signs and, independent of the owner, transfers important information directly, or emits a warning signal to people around you, or transmits that signal to a medical facility, which means medical assistance can arrive on time.

Robert Puskaric, Ericsson's Head of Region for Northern Europe and Central Asia, is here on our panel. I would like to ask him to discuss current trends in the area of remote health control, about Ericsson's accumulated experience in that field, and about whether additional investment is needed in technological research. How much can remote health control be of help to doctors?

R. Puskaric:

Thank you very much. I will try to answer those tricky questions. Let me start by responding to the previous presenter here. It is extremely important that you get the enabler right from the start. It took us 100 years to connect 1 billion people to the Internet worldwide. It took us another 25 years to connect another 5 billion people. By 2018, you will actually have on this planet, 3 billion more people connected to the Internet. That more than triples the number of users that are connected today. We will also have 60% of the world population being able to access networks from their devices that have speeds of more than 100 megabytes per second in the air interface. Mobile broadband is a very powerful tool that will change our lives, the way we do business, the way we communicate, and the way healthcare will be performed in the future, but it is an enabler.

When you put mobility, cloud, and broadband connectivity together, you get something that William Ericsson called the 'networked society' in which everything that benefits being connected will be connected. In our estimation, you will have 50 billion connected devices by 2020, the bulk of them most probably within the healthcare sector. In the way we know healthcare today (extremely well exemplified by Philips, I think) we also agree fully that there is an enormous pressure on the healthcare sector to improve the quality and accessibility but also work with cost efficiency and cost effectiveness.

With mobile broadband, the ICT industries interest in helping out in the transformation of the healthcare sector is accelerating. We will see that by having access to mobile broadband everywhere at any given point in time with very low latency, which is also required with very high speeds, the data collection will improve for patients around the world. Remote health control will, of course, be provided in a totally different way. In 2020, self-healthcare will be something that we simply take for granted. The collaboration between doctors worldwide will come to a totally new level. The healthcare that we know of today with the help of mobile broadband connectivity in cloud will transform dramatically in the future.

I would also like to point out one last thing: today, we have made a big step forward when it comes to providing mobile broadband to Russia. We have announced the first signature of cloud in 4G technologies together with MTS, and that will also become available for the healthcare sector in the very near future. Thank you.

M. Kurtser:

Thank you very much.

I am going to give the floor to Mr. Latsanich, Vice President of Marketing at MTS. I remember very well that there was also a panel last year in which an MTS official participated. He talked about the Mobile Doctor programme. The essence of that programme was that both the physician and the patient could always find additional information using the patient's mobile phone. But today, we are posing a wider question. There is a way to record the parameters of the body's vital signs, a way to transmit broadband signals. Accordingly, a communications operator can facilitate the development of medicine in the country and the emergence of new forms of medical assistance.

Go ahead!

V. Latsanich:

Thank you very much.

Ladies and gentlemen, Forum participants and guests! Thank you for allowing me to speak on this panel. I would like to discuss how we, a mobile phone operator, see this issue and how we can resolve it. In the OSCE countries, some estimate the savings from introducing mobile medicine to be as much as USD 400 billion. Thanks to more efficient response times, enormous resources could be freed up and directed at solving other problems. If cars were equipped with special chips and mobile phone company SIM cards that could transmit a signal from an accident, we could save the life of one in every nine people who die in traffic accidents today. Think about it: one in every nine people could have lived longer if an ambulance had

arrived on time! This is not just a question of money or efficiency. This is a question of people's health and survival.

Ms. Bricq correctly noted that the biggest international corporations are working on this. Our French counterparts – Orange and France Télécom – are working on creating a mobile medicine system. This might be a surprise to many of you, but the technological prerequisites to build such a system also exist here in Russia, put in place by us, MTS. What is more, concrete results have already been achieved. While in the developed European countries medicine rests on a solid financial foundation, sufficiently financed by the state, it is obvious that there are barriers there that are purely psychological in their nature, preventing the introduction of telemedicine. There, they believe that telemedicine is not as necessary in principle: there are well-trained doctors; there is no shortage of them; and the countries themselves are not so large.

For Russia, this problem is more pressing. It is no secret that here the quality of medical services is better in the big cities, and the further you go from a big city, the greater the decline in the efficacy and even the speed of those services. This is where we can come in to help. Nobody except us can bring together a person – a patient, perhaps – with a doctor, or a less experienced doctor with a more experienced one. We have the networks, and we have the ability to transmit great masses of data and build whole systems to provide care. Today we have heard the words 'mobile medicine', 'telemedicine', and 'telediagnosis'. All of these things have already been worked out in pilot projects. As of today, 28 regional telemedicine centres are in operation, and we are participating in that work as a service provider. These centres record around 22,000 messages per year and give a corresponding number of consultations.

But this is not enough. The problem is that the state and the society are not yet paying enough attention to developing telemedicine, which, as I have already said, will allow us not just to save money, but to save people's lives. We are prepared to cooperate with government agencies, too. For example, in Ukraine, we have been working closely since 2006 with the Ministry of Healthcare and the scientific

research community at the institutes of medicine, constantly conducting experiments that have already led to the creation of a telemedicine system that makes it possible, for example, to provide long-distance consultations during surgical interventions.

If the state has the will to do it, we are prepared to create and expand that infrastructure so that as many more people as possible can maintain their health and live longer lives, and so that doctors can obtain additional qualifications and come to rely not just on transportation and their stethoscopes, but also on the modern medical equipment that has already been mentioned here. We are eager to talk to anyone who might come to us and help us expand our business outside the boundaries of the telecommunications sector. We are prepared to work with anyone who comes to us with new ideas and knows how to make a new product widely available and affordable. Right now the costs of our services are very low, so we are more worried about the psychological barrier than the price barrier. We are concerned that people will not trust the new system, or will not know what it is capable of doing.

Thank you.

M. Kurtser:

Thank you very much.

Everyone who was scheduled to speak here has spoken. We have time left for questions and answers. Our discussion was not very long, but during this time we touched on a great many different topics, and everyone who spoke mentioned investment. Investment is needed to replenish our stock of hospital beds. Investment is needed to build modern clinics and outpatient centres. Investment is needed to reform the education system. Without education system reforms, we will not be able to change the mentality of the patients. They will not trust the mobile doctor who could save their life or, at least, improve their condition.

Here is a concrete example. I, like Dr. Matskeplishvili, work in Moscow, where in recent years the traffic situation has become simply terrible. And while we have an

interest in every visit a patient makes to the clinic, we have had to develop special heart monitors for recording foetal heart activity. These monitors, located in our patients' homes, decode the signals coming from the unborn child and transmit them to our site. To my utter surprise, this has brought about a revolution in people's worldviews. The doctor on duty – we call him the 'on-duty administrator' – in the evening, while no longer at the clinic, checks all the signals coming in, classifies risks, makes a diagnosis, and calls patients into the clinic. Sometimes receiving a signal on time and quickly making a decision saves the unborn child's life. There are many such examples, and not just in obstetrics and gynaecology; this is just a subject area with which I have a much closer relationship.

And the most important thing is that new systems must be introduced in a comprehensive manner. When mobile operators, working together with technology manufacturers, develop equipment, then we must make changes to the medical education programme. We must understand the importance of this; we must inform our patients and reconfigure, as appropriate, the way that clinics and medical centres operate. We have a huge job ahead of us.

I want to touch on one more issue that was not touched on during this discussion. I have been practicing medicine for over 30 years now, and I have come up against the problem that not a single medical technology manufacturer has developed a device that would make a medical examination cheaper. New tools have increased the quality of our diagnostics, and we have started making diagnoses at earlier and earlier stages of illness. All this has led to longer life spans and better quality of life, but at the same time we are constantly, and have been since Soviet times, refitting our clinic, filling it up with equipment. Every time I relax and think we have finally finished refitting it, they hold another exhibition, in Dusseldorf or somewhere else, and I realize that I have missed the train again, and that once again I have been left standing on the platform. Once more we need to attract investment and implement new technologies. Of course, that is a whole set of issues to which we cannot possibly respond within the framework of a single discussion. They have to do with taxes and the flat rates, among other things, which I mentioned at the very

beginning. I will repeat once again: everyone involved in the treatment process – the state, physicians, administrators, and patients – wants change and is ready for change.

We have just a few minutes left. Would anybody like to add anything or ask a question?

S. Matskeplishvili:

Firstly, I want to say that I completely agree with you. My mobile telephone can record a complete cardiogram, take my blood pressure, and measure blood sugar levels. Secondly, I want to note one thing. The state is not just territory, natural resources, and nuclear bombs. The state, first and foremost, is people. It is exactly the same thing in medicine. Technology, tools, hospitals, and investment are all very important, but the most important thing is the doctors: living people like you and me. It seems to me that the state today must pay special attention to doctors. The patient's survival often depends on the psychological state of the doctor, so how much money the doctor gets and the conditions he or she works in are very important. This is no less important than medical equipment and the doctor's knowledge of how to work with it.

Today, unfortunately, medicine often poses a danger to patients, which we must not forget. In medical practice, various forms of radiation are sometimes used, for example, that could pose some risk. That means that we must put more and more money into medical education, so that doctors will be able to make full use of the equipment and make the correct diagnoses, so that they can, as you said absolutely correctly, extend lives and improve the quality of life.

Thank you.

M. Kurtser:

Thank you very much.

Would anybody like to add a few words or ask a question? No?

Thank you very much to the participants in our discussion, and thank you all for your attention.