

A Telehealth strategy for BRICS countries based on National Research and Education Networks (NRENs), to support Mothers, Newborns, Nutrition, Child and Adolescent Health

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Understanding that the innovative benefits of the increasing use of information, communication technologies (ICT), to achieve technological training and collaborative medical activities among BRICS countries, it is thought to develop a strategic roadmap to connect telecommunication infrastructure, National and Regional Research and Education Networks (NRENs) and existing healthcare networks for mothers, newborns, child and adolescent units.

Based on a study from WHO/2013 on “eHealth and innovation in child and adolescent health”, it has been demonstrated that among 64 countries, 78% lack on qualified human resources for health and 77% did not have adequate infrastructure for eHealth. The National and Regional Research and Education Networks can provide at least part of this demand, integrating, and enabling medical and health professional collaboration between reference institutions and healthcare facilities.

The significance of expanding the telehealth strategy among BRICS countries is based on their continental sizes, lack of specialists, lack of health professionals continuous training and inadequate infrastructure mainly in remote areas. Therefore, great demand for a well-organized strategy and platform to promote initiatives to improve health care and qualification.

Needless to strengthen the great demand on qualified health services for 42% of the world’s population.

Since 2013 mainly the telemedicine experts from Russia and India have met and planned its insertion under BRICS goals. A major force have been the BRICS initiatives from Russian specialists. Under the sponsor of the government of Khanty-Mansiysk in Siberia, telemedicine experts from BRICS countries have met in 2014, 2015

and 2016 at the International IT Forums and signed the Statement of Experts on Telemedicine BRICS to the BRICS Ministers of Health emphasizing the great demand of these countries on permanent and consistent remote health support to assistance, education, collaborative research, management, monitoring and evaluation.

Based on these statements, the BRICS Ministries of Science, Technology and Innovation have first approved the concept of “telemedicine” under the focus area “biomedicine and life sciences” in the Brasilia Declaration from March 18th 2015. In the recent 6th BRICS Health Ministers Meeting in New Delhi, India, it has also been approved in December 15th and 16th 2016, in the agenda item Information and Communications Technology in Healthcare, “Appreciating the work undertaken and progress made by BRICS countries in use of ICTs in the different areas of healthcare such as health delivery (including tele-medicine), interoperable electronic health records, surveillance, health promotion, awareness, etc”; in the item 16 of the Delhi Communiqué “Emphasized the importance of child survival and development through progressive reduction in the maternal, infant, neo-natal, under-5 mortality and congenital disorders as well as their consequences to child development with the aim of achieving the unfinished agenda of the Millenium Development Goals and the relevant Sustainable Development Goals. Confirmed their commitment to a renewed effort in this area and to enhance collaboration through exchange of best practices.”

A Global Network of Institutions of Learning, Research and Extension on Nutrition, Food and Nutrition Sovereignty and Security (NutriSSAN) was launched during the

Olympics Games held in Rio de Janeiro (Rio 2016), by the Brazilian Ministries of Health, Sciences & Technology, Education, International Affairs, together with the United Kingdom and Japan. This Global Network is running a technological platform for collaboration based on the Telemedicine University Network (RUTE), which is coordinated by RNP the National Research and Education Network from Brazil to integrate and contribute to the efforts of the international community in their fight against hunger, malnutrition, and poverty.

During the G7 ICT Ministers' meeting held in Japan in 2016, it was highlighted the importance of the National and Regional Research and Education Networks (NRENs) and Regional Research and Education Network (RENs) such as GÉANT, a European success story and project that has been a vital element of Europe's e-infrastructure strategy for 15 years.

In a Joint Declaration the G7 ICT Ministers stated: "We recognize the importance of development, interconnection and utilization of national research and education networks (NRENs) as providing an open infrastructure for education, research and development purposes that also serve to enhance connectivity around the world."

In Brazil, there are three major Telehealth initiatives: the Brazilian Telehealth Programme¹, the Open University for the National Health System (UNA-SUS)² and the Telemedicine University Network (RUTE)³. Together, they combine a comprehensive and integrated range of actions that supports capacity building and assists education, research, and health care through telehealth.

Currently, the Brazilian Telehealth Programme is established in 14 out of 27 Brazilian States in more than 2000 cities, engaging 30 thousand health professionals from the Family Health Programme.

RUTE⁴ launched in 2006 is present in 124 Telemedicine Units from medical schools and teaching hospitals, in all 27 Brazilian States. Its network comprises 60 special interest groups SIGs (assigned to specific health areas) that holds on average, 2 to 3 scientific videoconference sessions every weekday, engaging 380 different health institutions, producing 525 video and 125 web conference sessions per year, all recorded and available online for consultation. There are at the moment 14 SIGs tailored to Mothers, Newborns, Nutrition, Child and Adolescent Health, which are: Child and Adolescent Health, Pediatrics Radiology, Urology, Rheumatology, Oncology, Endocrinology, Surgery, Cardiology and Congenital Cardiopathologies, Human Milk Bank, Endometriosis, Fetal

Medicine, Congenital Infections, Vaccines, Aedes Aegypti and correlates. They can also all be held in English enabling the collaboration among BRICS countries.

With all this infrastructure, established and consolidated procedures and governance in place, the Telehealth Strategic Plan for the BRICS countries can be built and thrive establishing a sustainable collaborative network.



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