

This activity ended in April 2012 with a hand-over workshop in the Czech Republic. The recommendations from the workshop are under consideration at country level.

The e-health development support has been expanded into other countries. In the last period (2012-2013) the NST has been primarily involved in The Republic of Moldova. The work with supporting the Republic of Moldova with developing a national e-health strategy commenced in May 2012 and was reported in the period 2011-2012. In this period, the activity has continued with several visits and workshops by the NST to the Republic of Moldova, as well as hosting a study visit to Norway. In between the visits, there have been a number of virtual meetings and document exchange. On 31 May the formal project ended by a public consultation in Chisinau with more than a hundred participants. The NST has expressed willingness to support the telemedicine and e-health in the Republic of Moldova in the future. Based on the experience in Moldova, the NST is writing a scientific paper on how the WHO/ITU Toolkit for e-health strategy is used in local contexts. See <http://www.telemed.no/index.php?cat=7398> for further information.

The NST has assisted WHO and member states upon request, e.g. by identifying resources for project development and study visits (Serbia, Estonia). The NST has given advice to WHO on various topics, e.g. methodologies on deciding impact indicators for e-health development in LMIC.

In the capacity as a WHO-CC and Ambassador Platform for 'eHealth in Inaccessible Regions' under the Integrated Applications Programme of the European Space Agency (ESA), the NST organised a workshop focusing on the provision of health care to people living in the High North with the challenges of long distances, harsh climate and lack of health care professionals. This joint WHO CC and ESA AP workshop brought together stakeholders from different regions and institutions to discuss challenges and potential solutions of overcoming barriers in health service provision in the High North. The workshop was organized in cooperation with the Arctic Council and had a special focus on the Arctic Region. More information, http://www.paho.org/ict4health/index.php?option=com_content&view=article&id=148:workshop-healthy-living-in-the-high-north&catid=42:seccion-qen-otras-regiones-de-la-omsq&Itemid=64&lang=en. In July, the NST received funding from the Ministry of Health for a joint two year project on supporting e-health in the Nenets Autonomous Region. The aim of the project is to improve the accessibility and quality of primary healthcare services to inhabitants of remote settlements and the nomad indigenous population. The project supports the federal programme for monitoring pregnant women and infants using the Nenets Telemedicine network. The NST contributes with telemedicine advice as well as provided training and assist with motivation and incentive mechanisms.

Activity 2

Title: Support the analysis and reporting of the Global eHealth Observatory survey

Description: The WHO CC will support the analysis and reporting of the Global eHealth Observatory survey in the European region. The outline of the report will be defined in a kick-off workshop with the survey secretariat in WHO-HQ. Parties will discuss other activities, like follow up of the WHO/European eHealth Trends study.

The NST prepared an executive summary of the Global eHealth Observatory survey from 2009 for the European region, in close collaboration with WHO-Euro and WHO-HQ. The activity was closed from the NST side by the end of 2012. The report is under the final revision by WHO-Euro and will be published by the end of this year.

The NST has expressed willingness to support the 2013 GOe survey to the COIA countries (<http://www.everywomaneverychild.org/resources/accountability-commission>) with translation and adaptation into Russian language.

Activity 3

Title: Support developing eLearning courses

Description: The NST will support the development of e-learning modules within areas decided by the WHO. In addition, the NST offers hands on training in telemedicine/e-health and e-learning as well as other courses and research / training visits. The NST will investigate the potential for developing e-learning modules for telemedicine / e-health training. WHO Europe will promote and consider supporting participants from countries in need.

This topic has been discussed with WHO-EURO and WHO-HQ over the years. The NST has expressed willingness to assist with advice on the technology, organisation of modules and content production for e-learning. The parties have agreed to explore funding opportunities for a joint e-learning project. Discussions have been made on developing an interactive module of the WHO/ITU eHealth strategy tool-kit.

The long term collaboration between the NST and Palestinian Rehabilitation Centres (PalRehab) has continued in this period focusing on the sustainability of the network after the project ends in 2013, <http://telemed.no/new-telemedicine-activities-in-the-palestinian-territory.4960156-247951.html>. An evaluation report has been made on the impact of this long-term collaboration from 2005, http://telemed.custompublish.com/getfile.php/2436426.357.bueapauwvc/NST-rapport_2013-07_Assessment_of_the_Results_and_the_Sustainability_of_the_Palestinian_Telemedicine_Programme.pdf

The NST has been project manager and provided technical assistance to an initiative from The University Hospital of North Norway (UNN) (financed by UNN and NORWAC) to set up a training program for Syrian physiotherapists and physiotherapy assistants in Turkey on the border between Syria and Turkey. The background for the initiative was the dramatically increased need for specialised physiotherapy and rehabilitation services, both among refugees in Turkey and among civilians inside Syria. The tailored training program improves the knowledge and expertise of physiotherapists, and provides the physiotherapy assistants with basic knowledge and skills. The program includes prolonged on-site supervision, training programs, and in the long-term the application of e-health technologies, among them, e.g. e-learning.

Activity 4

Title: Facilitate telemedicine networks for low and middle income countries

Description: The NST will facilitate collaboration between existing global telemedicine networks for improving health care in low and middle income countries. Based on other existing telemedicine networks in developing countries, such as the Swinfen Charitable Trust and The ITG Telemedicine Network the NST will facilitate contacts and support telemedicine consultations.

This activity has been phased out as the person in charge Dr Wootton is only 20% employed by the NST.

Activity 5

Title: Mobile technology applications to promote public health

Description: Mobile technology applications that promote public health. The NST will help to identify and/or develop mobile based interventions to address public health issues and healthy living, e.g. smoking cessation, healthy diet, increase of physical activity.

Additional consideration will be given to web and mobile health applications for disease surveillance and tailored information to the public.

The NST has agreed to support WHO in the field of m-health as the centre has several on-going m-health projects and services in the field of diabetes, lifestyle and smoking cessation. More information at the NST website, e.g. The Diabetes Diary, <http://telemmed.custompublish.com/better-quality-of-life-for-patients-with-diabetes.5208977-287081.html>, lifestyle changes <http://telemmed.custompublish.com/lifestyle.4467424-247953.html>, smoking cessation <http://telemmed.custompublish.com/mobile-text-messaging-as-an-adjunct-to-an-internet-based-smoking-cessation-intervention.4644224-247953.html> and cardio-vascular diseases, Antypas K, Wangberg SC. E-Rehabilitation - an Internet and mobile phone based tailored intervention to enhance self-management of Cardiovascular Disease: study protocol for a randomized controlled trial. BMC Cardiovasc. Disord. 2012;12:50. <http://www.biomedcentral.com/1471-2261/12/50>.

Upon the request from WHO (Tajikistan), the NST prepared a concept outline for clinicians regarding SMS-warnings when the child's development measurements fall outside of acceptable parameters. The concept describes a simple SMS-application that upon submission of 2-3 variables of a child (height, weight, age) could give an appropriate positioning within a growth chart. If values fall outside local norms, then a recommendation for further action could be sent.

The NST participated in a seminar organized by Norad, 'New partnerships for Innovation in Global Health' on 4 June 2013, where m-health was on the agenda. The NST has provided content to the Norwegian MFA report on Norwegian support to Global Health, <http://www.norad.no/no/aktuelt/nyheter/bredt-engasjement-og-mange-suksesshistorier-i-global-helse;jsessionid=E27C5E7F86E7B0BC2E703C98D17D5D47> (in Norwegian only).

Activity 6

Title: e-inclusion initiatives

Description: The WHO CC will explore potential opportunities for the E-inclusion initiative. This will include ICT support for combating disparities in health and social inequalities, e.g. develop e-health programs for people suffering from psychological diseases.

There have been no requests in this area in the last period.

Activity 7

Title: Guidelines for country feasibility study

Description: In the area of implementation and methods, the WHO CC will revise the Guidelines for a Country Feasibility Study and advice on methods for evaluating telemedicine and e-learning programs. Based on NST's research, provide recommendations and assist in evaluating telemedicine and e-learning systems and services.

There has been no input to the revision since it was last discussed between WHO-HQ and the NST in February 2012. Since then the ITU/WHO e-health strategy toolkit has been launched and there seem to be little interest in a special guideline for telemedicine. We would therefore propose to phase out this activity.

Activity 8

Title: Collaboration with WHO-CC in telemedicine and e-health

Description: Organize a joint Who Europe - WHO CC workshop / event every 2nd year for WHO-CCs and other WHO agencies working in the area of telemedicine and e-health.

The NST participated in a regional consultation on Telemedicine organised by WHO South East Asia Region on 30 July - 1 August 2013 in Pyongyang, DPRK: Sharing experiences and the way forward. The NST has also commented on the 'Regional Strategy for Strengthening e/mHealth in the South East Asia Region, WHO, (2014 - 2020).'

The NST participated in the MedInfo conference in Copenhagen, 21-23 August 2013 upon the request from WHO which organised a plenary session with representatives from the regional offices and headquarters.

2. Please briefly describe your collaboration with WHO in regards to the activities of the WHO collaborating centre during the past 12 months (e.g. means of communication, frequency of contact, visits to or from WHO). Please feel free to mention any difficulties encountered (if any) and to provide suggestions for increased or improved communication (if applicable).

This report is based on the work-plan from 2010 although a revision was made following the WHO visit to the NST on 29-30 November 2012. The last period has been very productive for the WHO-NST collaboration. Although some of the actions described in the work-plan have not been carried out, where as other activities have been included.

The NST is continuing to support the work with the Health Atlas Project which started in the last period. This is a continuation of a WHO and the European Commission joint action to develop the project "Inequalities in health system performance and their social determinants in Europe ", from 2007. The main aims of the project was to improve availability of and access to evidence on inequalities, including quality of care and the structural determinants of such inequalities across countries and regions in Europe. The NST has finalised phase 1 of the project and is currently working on phase 2 where 2-3 themes will be finalised by the end of November.

The NST has contributed to the development of the 2013 Compendium of Innovative Health Technologies and eHealth Solutions for Low Resource Settings by providing evaluation services for products and service entries.

The NST provided technical support to the WHO work on e-health standards by helping with organizing the European region workshop on standards that took place in Tallinn 16-17 May 2013. Five member states participated: Croatia, Estonia (host), Hungary, Republic of Moldova, Serbia, and the UK. The workshop was part of WHO-HQ work on a handbook for eHealth standards which will be published in autumn 2013. Further information <http://www.telemed.no/european-technical-consultative-meeting-ehealth-data-standardization-and-interoperability.5325082-7398.html> .

The NST represented WHO at a workshop on 'Telemedicine in Crisis Management', Moscow 11-12 March 2013. The workshop was a follow-up from a previous event in Bucharest, Romania 3-4 September 2012. The scope and purpose of the workshop was to develop a project proposal for the NATO Science program for a joint project in crisis management. The workshop was a joint meeting between the Russian Federation and Romania hosted by NATO. Around 60 people from 21 nations participated in the event. The conclusion on how to move forward, e.g. which directions to take, was still pending upon the closure of the workshop.

The interaction between WHO and the centre is very good with frequent meetings and e-mail exchange. Meetings are based on needs, and primarily conducted via skype, telephone and e-mail. Several members of NST staff have met with WHO in WHO HQ, in the WHO European office as well as in other venues (see the list below). The WHO has visited the NST two times in the period.

24-28 September: Follow-up mission to Moldova on eHealth strategy development. Participant: Ms Tove Sorensen (NST).

5-7 November: Study visit from Moldova to Norway. Participants: Dr Silviu Domente (WHO Moldova country office), Dr Hege Andreassen (NST) and Ms Tove Sorensen (NST).

6-7 November: Health Atlas project meeting, WHO-office in Copenhagen: Participants: Dr Enrique Loyola and Dr Ivo Rakovac (WHO-Euro), Mr Lars Ilebrekke and Mr Kassaye Yitbarek Yigzaw (NST).

29-30 November: Visit from WHO to the NST by Mr Clayton Hamilton. He participated in the international workshop 'Healthy living in the High North. Providing health and social care to remote regions.'

8 February: Norad synergy meeting with WHO and collaborating Norwegian national institutes in Oslo. The head of WHO representation was Dr Ties Boerma, Director of the WHO Department of Health Statistics and Informatics within the Innovation, Information, Evidence and Research Cluster at WHO

in Geneva. Ms Tove Sorensen participated from the NST.

16-20 February: e-health strategy writing workshop in Moldova with public consultation. Participants: Mr Clayton Hamilton (WHO-Euro), Dr Silviu Domete (Moldova country office), Dr Hege Andreassen (NST) and Ms Tove Sorensen (NST).

11-12 March: Workshop on 'Telemedicine in Crisis Management', Moscow. Participants: Ms Svetlana M Bye (NST) and Ms Tove Sorensen (NST).

16-17 May: Ramesh Krishnamurthy (WHO-HQ), Dr Marge Reinap and Ms Gerli Sirk (WHO country office) and Ms Tove Sorensen (NST).

29-31 May: Policy dialogue e-health strategy, Chisineau Moldova. Participants: Dr Silviu Domete (Moldova country office), Dr Hege Andreassen (NST) and Ms Tove Sorensen (NST).

30 July – 1 August: Regional consultation on Telemedicine 'Sharing experiences and the way forward' organised by WHO South East Asia Region (SEARO) in Pyongyang, DPRK. Participants: Dr Rajesh Bhatia, Acting Regional Director, Ms Jyotsna Chikersal, Dr Athula Kahandaliyanage, Dr Kim Son Il, Ms Akanksha Panwar (all WHO-SEARO), Dr Stephan Paul Jost, Dr Suraj Man Shrestha, Dr Jo Kwang Chol (DPRK country office), Ms Tove Sorensen (NST).

21-23 August: Meeting with WHO Euro and headquarters during the MedInfo conference in Copenhagen. Participants: Dr Najeeb Al Shorbaji (WHO-HQ), Dr Enrique Loyola (WHO-Euro), Dr Ramesh Krishnamurthy (WHO-HQ), Ms Jyotsna Chikersal (WHO-SEARO), Mr Mark Landry (WHO-WPR), Mr Clayton Hamilton (WHO-Euro) and Ms Tove Sorensen (NST).

3. Please briefly describe any interactions or collaborations with other WHO collaborating centres in the context of the implementation of the above activities (if any). If you are part of a network of WHO collaborating centres, please also mention the name of the network, and describe any involvement in the network during the last 12 months.

We have regular contacts with other WHO-CCs especially within the field of telemedicine and eHealth via e-mail, meeting and conferences. We have regular contact with Martin Raab and Claudio Zaugg at the Swiss Tropical and Public Health Institute as they are engaged in The Republic of Moldova.

The NST collaborates with Dr Antoine Geissbuhler and the WHO Collaboration Centre for eHealth and Telemedicine in Geneva, through the project 'Satellite-enhanced Telemedicine and eHealth for sub-Saharan Africa', funded by the European Space Agency (ESA).

4. Please briefly describe any type of technical, programmatic, advisory or other support received from WHO during the past 12 months for the implementation of the agreed activities listed above (if any).

WHO has financially supported several of the activities above:

- The work with the Health Atlas is undertaken as an APW.
- The NST engagement with e-health strategy support to Moldova has been co-funded by WHO with support from the Swiss Development Agency.
- The WHO has co-financed attendance to the workshop in Tallinn May 2013 and Pyongyang July 2013.

WHO gave a presentation at the international workshop 'Healthy living in the High North. Providing health and social care to remote regions' hosted by the NST.

WHO will revise and publish the Global eHealth Observatory report for the European region (to be completed).

WHO assists with dissemination of NST activities and with contact-persons within various fields, e.g. PalRehab and Syria.