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Collaborating for Digital Health and Care in Europe

Scaling-up and sustaining telemedicine implementations: The Telemedicine Community Readiness Mode

Dr. Lena Otto, TU Dresden

Use of telemedicine has increased rapidly in 2020. A telemedicine community readiness model (TCRM), based on earlier Momentum Blueprint work, is now available free of charge. Using its steps is helping to encourage scaling-up of telemedicine innovations. Use of the model has already assisted several communities – for example in Australia, Croatia, and Scotland – to identify key aspects of their own telemedicine success stories. Further use of the TCRM could really help to encourage telemedicine implementation during ongoing waves of the COVID-19 pandemic.

Telemedicine in 2020 and beyond

During 2020, there were many telemedicine innovations. Internationally, increasing numbers of telemedicine solutions were put in place; they were used for many more reasons than the social distancing and special circumstances posed by the COVID-19 pandemic. Innovations started to occur rapidly. Barriers assumed to exist were suddenly overcome, because COVID-19 did not leave citizens and organisations with many alternatives. However, what we perceive from former pandemic or epidemic situations, based on other respiratory conditions like SARS or MERS, is that this increase in innovation and continued use of telemedicine is rarely sustained after the special situation ends. Therefore, the COVID-19 situation teaches us two main lessons: we should empower stakeholders – as well as communities – to develop long-term strategies to implement telemedicine initiatives successfully, and we should create environments which makes it easy to scale-up telemedicine initiatives in scope and number.

The Telemedicine Community Readiness Model

The Telemedicine Community Readiness Model (TCRM) underpins telemedicine development by communities and stakeholders. The TCRM was developed to support communities – and stakeholders in those communities e.g., community representatives, legislative institutions, and payers – to create a favourable environment for implementing and scaling-up telemedicine. It is a valuable tool that helps to assess and improve the status quo for telemedicine in communities that can be connected locally (e.g., regions or health networks) or through a shared concern (e.g., a common disease). The model

consolidates research on telemedicine barriers, and success factors for telemedicine implementation, e.g. by incorporating the findings of the MOMENTUM Blueprint. The TCRM was evaluated at several stages during its development in different communities in Australia and Germany – more recently, there have been other test sites for the model. Now, it is available free of charge as a web tool, and is accessible to anyone searching for support on telemedicine deployment in his/her community.

Steps for scaling-up telemedicine

There are several steps to using the TCRM. As a first step, the TCRM guides users through several questions for assessing the status of telemedicine initiatives, the involvement of users within the community, and the level of evidence generated for existing telemedicine projects. In a second step, different aspects need to be rated, which can improve the community's ability to implement telemedicine initiatives successfully. Based on this rating, the TCRM proposes specific improvement aspects that help the community to be better prepared to implement telemedicine successfully. In a third step, community stakeholders – including representatives in communities, payers, healthcare professionals, technicians, or people using telemedicine – work together to develop a specific strategy on how to put the proposed aspects into practice.

Example best practice uses of the TCRM

In preparation for the 22 October 2020 EIP on AHA workshop on citizen and community empowerment led by HELICT (the Healthy Living Competence Team) of TU Dresden in Germany, several communities applied the TCRM. Several sites reported on their best practices in the workshop. The tool was applied particularly e.g., in Australia, Croatia, and Scotland.

The communities in these three countries have already implemented quite a high number of telemedicine initiatives. A considerable number of people are now involved in telemedicine in each community. All three communities are highly interested in generating evidence that their telemedicine initiatives serve as intended. Based on an initial assessment of their status quo, various aspects have been identified that can help further improve the telemedicine implementation in all these communities.

The focus of the workshop was on lessons learned, and what can be learned from the success stories created in these communities so far. Many of the successes took place in communities and regions that were remote or were in some ways deprived.

Three success stories: Australia, Croatia and Scotland

Successes were identified in each of these three telemedicine initiatives in Australia, Croatia, and Scotland.

The Australian community benefitted from the fact that the stakeholders designed the layout and settings on mobile devices based on citizens' needs; they engaged Aboriginal team members to ensure culturally appropriate communication with users. Their focus on partnerships with state-wide services and an interoperable infrastructure helped them to succeed. A key point in their strategy was that the technical needs were very much driven by the clinical use case and not by the available technology.

In the Croatian community, co-development workshops were conducted with relevant stakeholders (including software developers, doctors, nurses, patients, and policy makers) to ensure people's involvement. Thanks to a pre-existing framework for telemedicine reimbursement, adequate financial resources were available for telemedicine initiatives.

The Scottish community also experienced provision of adequate financial resources. The Scottish Government Funding and Local Health Board resources were helpful in implementing telemedicine initiatives. A Scottish government programme exists which defines a sustainable scaling-up strategy necessary to implement and scale-up telemedicine initiatives in the long-run.

Several key factors appear to have included stakeholder engagement and co-development; a focus on use cases, infrastructure, regional or governmental leadership, and financial support.

Next steps with use of the TCRM

Beside the success factors discussed in the EIP on AHA workshop, the TCRM helps mainly in identifying aspects for improvement. Specific 'hard factors' (e.g., infrastructure, resources) and 'soft factors' (e.g., vision, awareness) are proposed by the model, which help each community to mature towards a state where it is easy to implement telemedicine initiatives. Furthermore, the TCRM supports the communication among all stakeholders involved by providing a unified understanding of their situation for them to work on together.

Since the TCRM is now in active use and freely available, it will serve as a knowledge base for sharing best practices in capacity building among communities regarding telemedicine initiatives.

By offering such support to communities, use of the model will very much aim to help in sustaining the increased use of telemedicine throughout ongoing waves of the COVID-19 pandemic in 2021 and beyond.

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