International Journal of Integrated Care ISSN 1568-4156

Volume 15, 27 May 2015
Publisher: Uopen Journals
URL: http://www.ijic.org
Cite this as: Int J Integr Care 2015; Annual Conf Suppl; URN:NBN:NL:UI:10-1-117022

Conference Abstract

The Benefit Trajectory – a framework to support innovative and beneficial technology based solutions in integrated care

Ann-Catrine Monberg, *Department of Public Health, University of Copenhagen, Denmark*

Dorthe Furstrand Lauritsen, *Department of Public Health, University of Copenhagen, Denmark*

Lena Sundby Jensen, *Department of Public Health, University of Copenhagen, Denmark*

Lars Kayser, *Department of Public Health, University of Copenhagen, Denmark*

Correspondence to: ***Lars Kayser,*** University of Copenhagen, Denmark, *E-mail: lk@sund.ku.dk*

Abstract

Introduction: The implementation of technology in telehealth and integrated care poses several challenges as users often expect technologies to be similar to what they know from their everyday lives, such as smartphones, tablets and social media. These expectations are difficult to meet by the healthcare sector, as development and implementation of new technologies can be challenging, especially for smaller healthcare providers such as municipalities and counties. The purpose of this study was to clarify whether there exists a robust health technology assessment model for development, implementation and assessment of maturing telehealth solutions.

Methods: We have conducted a narrative literature overview [1] to identify published use of health assessment technology models in order to identify how they can be used in relation to telehealth and telemedicine projects. We searched for the words “telehealth”, “telemedicine” and “health technology assessment” in PubMed and Google Scholar.

Results: Seven models were identified: Constructive Technology Assessment [2], Continuous Systematic Evaluation model [3], mini-HTA [4], Model for Assessment of Telemedicine [5], an Assessment for Decision Makers [6], the West Midland Toolkit [7] and Plan-Do-Check-Act [8], an instrument to iterate processes. None of these models seemed to be suitable for application in the setting of development, implementation and evaluation of maturing technologies.

Discussion: The identified models all have various benefits in relation to assuring agile development, involving users and stakeholders, aligning processes or ensuring evidence-based practice. However, a model which covers all these areas as one framework is missing. We therefore propose a “Benefit Trajectory” which is a framework based on the business development concept from the Continuous Systematic Evaluation Model [3] with the addition of key elements from the other models. The Benefit Trajectory consists of four stages; I Inception, II Materialization, III Implementation and IV Assessment. The core of the framework is a need-based process that ensures alignment of needs, goals and expected outcome by a smooth project trajectory.

This approach makes it useful in all health related settings, starting from a problem or need of the organization. The Benefit Trajectory can support innovation and development of new solutions as well as adaptation and implementation of existing solutions in new contexts. Also in research, the model has a potential to unify the wish for innovative development with a focus on effect and outcome. Currently we are exploring the use of the model in a hospital setting and in a PhD project developing a digital intervention to support men with prostate cancer in lifestyle changes.

Conclusion: We here present a theoretical framework for planning and implementing telehealth solutions using an operational framework, which can be used by small and middle sized organizations as the model takes the project through an agile, formative process ensuring involvement of users and stakeholders along the trajectory.

Lessons learned: In integrated care, we still need a model based on HTA that can support the acquisition and implementation of new technology-based solutions, since no such model could be identified in the literature. The existing HTA models are not suitable in a rapidly developing market and may be limiting to the future development in the healthcare sector.

Limitations: The literature review did only examine the telehealth and telemedicine area and we cannot rule out the possibility that business models in other areas or models using other key words for health related technology could be useful in this context. Also the study has not systematically reviewed the effect and usage of the identified models.

Suggestions for future research: Our Benefit Trajectory needs to be verified, and we invite organizations and researchers to collaborate with us in this effort. The framework also needs the development of an easy applicable toolkit to support every step in all four stages.

Keywords

innovation; implementation; telehealth; technology assessment

---

References

1. Green BN, Johnson CD, Adams A. J Sports Chiropr Rehabil 2001;15:5–19.

2. Dourma KFL, Karsenberg K, Hummel MJM, Bueno-de-Mesquita JM, Harten V, Wim H. Int J Technol Assess Health Care. 2007;23(02).

3. Catwell L, Sheikh A. PLoS Med. August 2009;18.

4. The Danish National Board of Health.

5. Kidholm K, Ekeland AG, Jensen LK, Rasmussen J, Pedersen CD, Bowes A, et al. Int J Technol Assess Health Care. January 2012;28(1):44–51.

6. Zanaboni P, Lettieri E. J Med Internet Res. 2011 Jan [cited 2014 Mar 25].13(3):e72.

7. Harding J. Birmingham; 2012.

8. Bulsuk KG. Plan-do-check-act. 2009.

PowerPoint presentation

http://integratedcarefoundation.org/resource/icic15-presentations