



**Stanford**  
MEDICINE

| **medicine** **x**

5:40 - 6:00 pm Saturday, September 6

LK 120

**Personal health records for self-management: Critical factors for implementation in primary care**



[Floor Sieverink](#)

PhD Student, University of Twente

### **Background**

Personal Health Records (PHRs) are considered important for improving the quality of disease management for patients with chronic diseases in primary care. The functionalities of PHRs mainly include online self-management support, monitoring the disease course and functionalities for information exchange among health care professionals (HCPs) and patients. Although the number of PHRs in primary care is growing, there is insufficient evidence about the (cost-)effectiveness and the working mechanisms of PHRs. The goal of this study is first to identify facilitators and barriers for the use of PHRs and to assess how patients and HCPs benefit from the PHRs. Second, we evaluate the (cost-)effectiveness in order to improve the value of PHRs for self-management support.

## **Methods**

My Health Portal (MHP) and e-Vita are two Dutch PHRs for patients with chronic diseases, with 10.500 potential end-users in primary care. Both PHRs contain functionalities for education, monitoring health data, and an online coach for working on health-related goals. MHP offers eConsultation as well. In a 3-year pragmatic controlled trial, a holistic perspective for evaluation will be used. Real-time usage will be studied via build-in log files to identify user profiles and persuasive factors to increase user engagement and adherence (study part 1). Validated questionnaires, interviews and usability tests among patients and HCPs will be conducted to monitor the impact on quality of life, self-management skills, health care processes and cost-effectiveness (study part 2). This presentation focuses on the results of the first year of evaluation (study part 1).

## **Results**

After the first year of evaluation, the reach of MHP and e-Vita is 12% and 15%. Remarkably, monitoring health data was the most favored function on both PHRs, while the online coaches were hardly used. Analyses of log-data revealed that the distribution of usage patterns is diffuse, indicating unfocused and nonstrategic use.

Usability tests showed that users faced problems with finding the right information on the website, which was not presented in a logical order. Users were satisfied about the monitoring functionalities, it gave more insight and control over their disease and possibilities to receive feedback in-between consultations.

HCPs in both projects were enthusiastic and curious about implementing a PHR in daily care, but reported a lack of integration with systems currently used in their practices. A lack of information about the purpose, functionalities and guidelines for the implementation of the PHRs in daily care was reported.

## **Conclusion**

Remarkably, the participants prefer functions for monitoring above education and communication on the PHRs. However, only a fraction of all potential users was reached. The results of our 1-year evaluation showed essential barriers for using PHRs in chronic primary care. First, content and system are not tailored to the users' needs and skills. Second, the PHRs have the potential to increase the quality of disease management, but to benefit more, both patients and HCPs should be

involved in early stages of development. Future research will be used to identify user profiles and to assess the impact on quality of life and cost effectiveness.

Floor Sieverink graduated from the Master Communication Studies in August 2012. For her graduation paper, she studied the needs of patients with chronic gastrointestinal diseases regarding different support services for a web portal, and she examined which variables are predictors for these needs. The goal of this web portal is to increase the level of self-management and the involvement in the treatment of this patient group. The project was commissioned by the Medisch Spectrum Twente, a Dutch hospital. After her graduation, Floor worked here as a junior researcher at the research office of the department of pulmonary diseases.

In March 2013 Floor started working as a PhD student for the department Psychology, Health & Technology of the University of Twente.

The overall objective of her PhD project is to examine the added value of a web based interactive care platform (e-Vita) as an integral approach of disease management for patients with diabetes type 2, chronic heart failure or COPD.