

Publishable summary

United4Health - Universal solutions in telemedicine deployment for European health care - is a Pilot A project under the ICT-PSP Competitiveness and Innovation Framework Programme, supported by the European Commission. The project ran from January 2013 to December 2015, a total of 36 months.

Healthcare services throughout Europe are witnessing dramatic increases in demand due to the increased prevalence of chronic conditions and ageing populations. To assist healthcare providers in meeting these challenges, the United4Health (U4H) project has implemented a range of telehealth solutions and developed new associated care delivery processes. Each deployment site's telehealth service enables patients to manage their long-term conditions at home or in a homely setting.

The project involved 32 organisations from across Europe. Some organisations represented regional healthcare institutions or authorities, while others were multi-national organisations or specialist organisations with a wider supporting role.

Objectives of the project

The overall objective of U4H is to demonstrate that home monitoring by use of telehealth for the management of people living with chronic diseases in home settings, can be successfully transferred to other regions and deployed at scale.

Similarly, by comparing results of RENEWING HEALTH regarding efficacy (under controlled conditions) and the results of U4H [1] regarding effectiveness in real life, the project aims to increase the current evidence base of the benefits that these solutions can provide to people living with chronic diseases, their relatives and other informal carers, and healthcare professionals, and the return on investment that they can provide to health organisations and health insurers.

The telehealth services implemented and assessed in U4H were validated as part of the RENEWING HEALTH project completed in December 2013. This means that the principle elements of all the telehealth services have been evaluated from the point of view of patient safety and technical capability.

Out of the large basket of telehealth services used in RENEWING HEALTH, three were selected by the United4Health Consortium, and have been evaluated within the framework of multi-centre studies. The services included in U4H are:

- Life-long management of diabetes.
- Short-term follow-up after hospital discharge for COPD patients.
- Remote monitoring of congestive heart failure.

The U4H deployment sites have procured and/or selected telehealth technologies aligned to those used in RENEWING HEALTH and reconfigured their chronic disease care pathways in order to integrate the telehealth service as an additional option for a patient's care management.

The primary outcomes within the three multicentre studies are:

- Diabetes: Reduction of the number of face-to-face contacts with GP or diabetologist, depending on local pathway
- COPD: Number of (re)admissions for COPD exacerbations within one month between the Intervention and Comparator Groups.

- CHF: HF related hospitalisations (readmissions).

Project description

United4Health is sharing the learning from implementing telehealth solutions designed to support people living with diabetes mellitus (DM), chronic obstructive pulmonary disease (COPD), congestive heart failure (CHF) and Hypertension. An evaluation using the MAST model (Model for Assessment of Telemedicine) provides evidence on the effectiveness of the technology solutions deployed in 14¹ regions across Europe.

Results & impacts & preliminary results expected

The overall project achievements can be summarised as:

- U4H has successfully managed to enable redesign of care processes and integrate telehealth into routine care services for people living with diabetes, COPD and CHF. It has been a very complex and time-consuming process, but the deployment sites in U4H have shown that it is possible to deploy telehealth services at scale.
- U4H has demonstrated that telehealth is as safe as routine care, and has provided evidence for clinical benefits. Patients accept telehealth as part of their disease care management and are satisfied with the services.
- U4H population was 9,637 with an evaluation cohort of 4,509, making it one of the largest studies of telehealth. Through the MAST framework, the project has assessed the economic and organisational aspects of telehealth.
- U4H has compiled its lessons learned and produced guidelines for procuring and implementing telehealth at scale.
- 90% of the U4H telehealth services have continued in the deployment sites, with many having plans for future development and expansion.

Project logo:



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¹ One region, Nord Pas de Calais, France deployed a Hypertension service; as they had already started their project before the start of U4H, the evaluation was not done according to MAST.