



Empowering People with Diabetes within the Framework of JA CHRODIS Recommendations and Criteria through the Use of mHealth Technology

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"European mHealth Hub Support – share experience with Western Balkan Economies on digital solutions developed by the Hub" – 28/09/2020





CHRODIS+ and the Quality Criteria and Recommendations (QCR) Tool

- QCR Tool was developed in JA CHRODIS through an extensive process (including Delphi methodology) involving more than 200 experts
- The Tool constitutes a valuable and practical framework that can be used by decision-makers, healthcare personnel, and patients to support the implementation of good practices, and to improve, monitor, and evaluate the quality of chronic disease prevention and care.



JA CHRODIS+ - focus on implementation



WP7 - foster high-quality care for people with chronic diseases through the implementation of the QCR tool, applied in 8 pilot actions in different settings, domains, and health care organisations.





Implementing Countries

Task 2





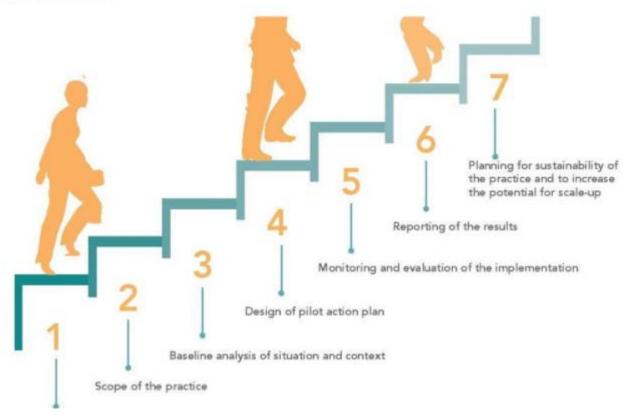
Task 3





QCR Implementation Guide

Pilot actions followed a common implementation process: 7 steps of implementation







Pilot Implementation Groups

Core Leadership Group

☐ Planning, organization, monitoring, reporting during the implementation of the action:

NCPHA team (Prof. Plamen Dimitrov, Mirela Strandzheva, Doroteya Velikova)

Local Implementation Working Groups

- ☐ Actively involved:
 - Bulgarian Association Diabetes
- Consulted on specific issues and actively informed:
 - Various healthcare specialists in the field of health promotion and disease prevention
 - Representatives from patient association groups





The Scope of the Pilot

Diabetes selfmanagement is a cornerstone in preventing long-term complications mHealth technology is widely used and serves to assist patients to adhere to diet, exercise and medication plans Designed within the framework for the implementation of actions using JA CHRODIS Recommendations and Criteria

The aim was to promote self-management and empowerment for patients with diabetes via momentary and daily assessments with the help of a mobile application as a means towards sustainable and scalable care





Specific Objectives & Target population

Specific objectives:

- To investigate whether the mHealth tool enables people with diabetes to obtain more control over their disease
- To investigate the extent to which a personalized feedback and a health education module contribute to patients' compliance
- To assess practitioner's satisfaction on patients' performance

Two groups of participants were recruited:

- T group received the enhanced version of the mobile app (with personalized feedback and embedded health education module; N=11)
- C group received the basic version (without personalized feedback and embedded education module; N=8).





Basic Results in Numbers (Key Indicators)

Compliance:

- Average number of sessions above 5 sessions for enhanced intervention group (group T) but dropped to 1 for basic intervention group (group C)
- Dropout rate less than 50% for group T and more than 50% for group C

Patient performance

- Physical exercise an increase from 49 to 56 min for group T and an unusual increase at the 4th week (referring to only 2 participants) for group C
- Perceived control of the disease improved slightly for group T at the 4th week but deteriorated at the 8th week. The improvement for group C at the 4th week was larger than for group T (only 2 participants at the time of the analysis)





Results from the End-of-Study Questionnaire

■ Both T & C groups:

"I checked my blood sugar levels more often."

most patients liked the process of "I have a diary, but the electronic form is much more convenient and interesting. I like this way to control my diabetes."

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	etes	6	5
		6	6

app

"It motivated me ."

Group T:

- needed further and more concrete quastions

"I like the easy way to enter blood sugar levels, my food intake and the idea of getting feedback from a practitioner. Also I like the end-of-the-day questionnaire as it helped me to reconsider the control of my diabetes during the day and the things that I can change in the following days in order to get better results."

feedback was considered as being t "I liked the fact that there were not that many good in a busy day. I also liked the o consult a specialist as well as the bot wever, I think the user experience can be in order for the application to be more use."

otions to enter data over time





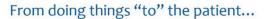
Results from the End-of-study Questionnaire with the Practitioner

- Satisfied in terms of the two-way communication between the practitioner and the patients and in terms of the weekly reports (data was extracted from the mobile app).
- Satisfied by the performance of the participants.
- The practitioner highlighted the fact that close relationship is a prerequisit for motivation and that mHealth thechnology has to include a more comprehensive connection, which can also make the patient understand the role of the medical specialist.



Empowerment and Target Population's **Involvement** in the Creation and Implementation of the Pilot

- Involvement of the leading diabetes association in the country as the LIWG
- One-to-one communication with patients, members of Bulgarian Association Diabetes
- Patients received videos in Bulgarian, educational materials and had direct telephone and email communication with the core leadership group and the LIWG
- Fast troubleshooting guidance between the technical team and the participants via the core leadership group







... to doing things WITH the patient!





What will stay alive?

- The CLG was supported by all stakeholders -> establishing opportunities for continuous information exchange
- Common goals and community involvement
- Strong nature of the patient empowerment aspect
- The practicability of the QCR tool





The Joint Action on Implementing good practices for chronic diseases (CHRODIS PLUS)

This presentation arises from the Joint Action CHRODIS PLUS. This Joint Action is addressing chronic diseases through cross-national initiatives identified in JA-CHRODIS to reduce the burden of chronic diseases while assuring health system sustainability and responsiveness, under the framework of the Third Health Programme (2014-2020). Sole responsibility lies with the author and the Consumers, Health, Agriculture and Food Executive Agency is not responsible for any use that may be made of in the information contained therein.







