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## Introduction

- **Problem:** Chronic pain is a burden for patient and relatives, the healthcare system and society. It affects multiple aspects of daily life, causing physical and/or social decline, psychological problems and reduces quality of life.
- **Challenges in treating chronic pain:** over- and under-treatment of patients, fragmented care, and moderate to poor treatment outcomes.
- **National approaches address improvement of health care:**
  - The National Care Standard for chronic pain
  - Value-based healthcare improving quality of patient care while reducing costs
  - Integrated Care agreement (IZA, 2022)

## Objective

The Value4Pain consortium (V4P) aims to develop concrete tools to accelerate value-based pain care addressing chronic pain health care issues. V4P consists of public and private frontrunners in the field of chronic pain:

- Department of Pain Medicine of the Maastricht University Medical Center+ (MUMC+),
- Maastricht University (UM), and
- Medtronic, Integrated Health Solutions

## Disclosure

This study is funded by the Consortium voor Kennis en Innovatie – Publieke Private Samenwerking (TKI-PPS) allowance of Health Holland, in which the MUMC+, UM and Medtronic are partners in collaboration with the Pain Patients United Consortium.

## Methods

- **Population:** Chronic pain population from 2016 to 2024 of the department of Pain Medicine of the MUMC+, that gave informed consent on the use of data in research related to their pain complaints.
- **Design:**
  - **Workpackage (WP) 1:** Comprehensive platform that visualizes complex care processes and specifies care paths of the chronic pain patient at the MUMC+ pain clinic
  - **WP 2:** Patient Value Application (PVA) to assist in patient goalsetting and shared decision making
  - **WP 3:** Prediction models to determine the type of patient that benefits from which treatment/care path
- **Data**
  - **WP 1 and 3:** Use of real life prospectively collected data (2016-2024) on Patient Reported/Experience Outcome Measures (PROMS/PREMS) at baseline and 6 months follow- up. Additionally, clinical and hospital data of received treatment plan and its costs.
  - **WP 2:** Prospective data collected at baseline and 3 months follow-up on the usability and applicability of the application.
- **Data analysis:**
  - **WP 1:** Process mining to identify trends and patterns of care processes. Value stream mapping to identify waste, process cycle times and process improvement.
  - **WP 2:** Quantitative analysis on usability and applicability.
  - **WP 3:** Logistic regression and internal validation by bootstrap resampling.

## Methods

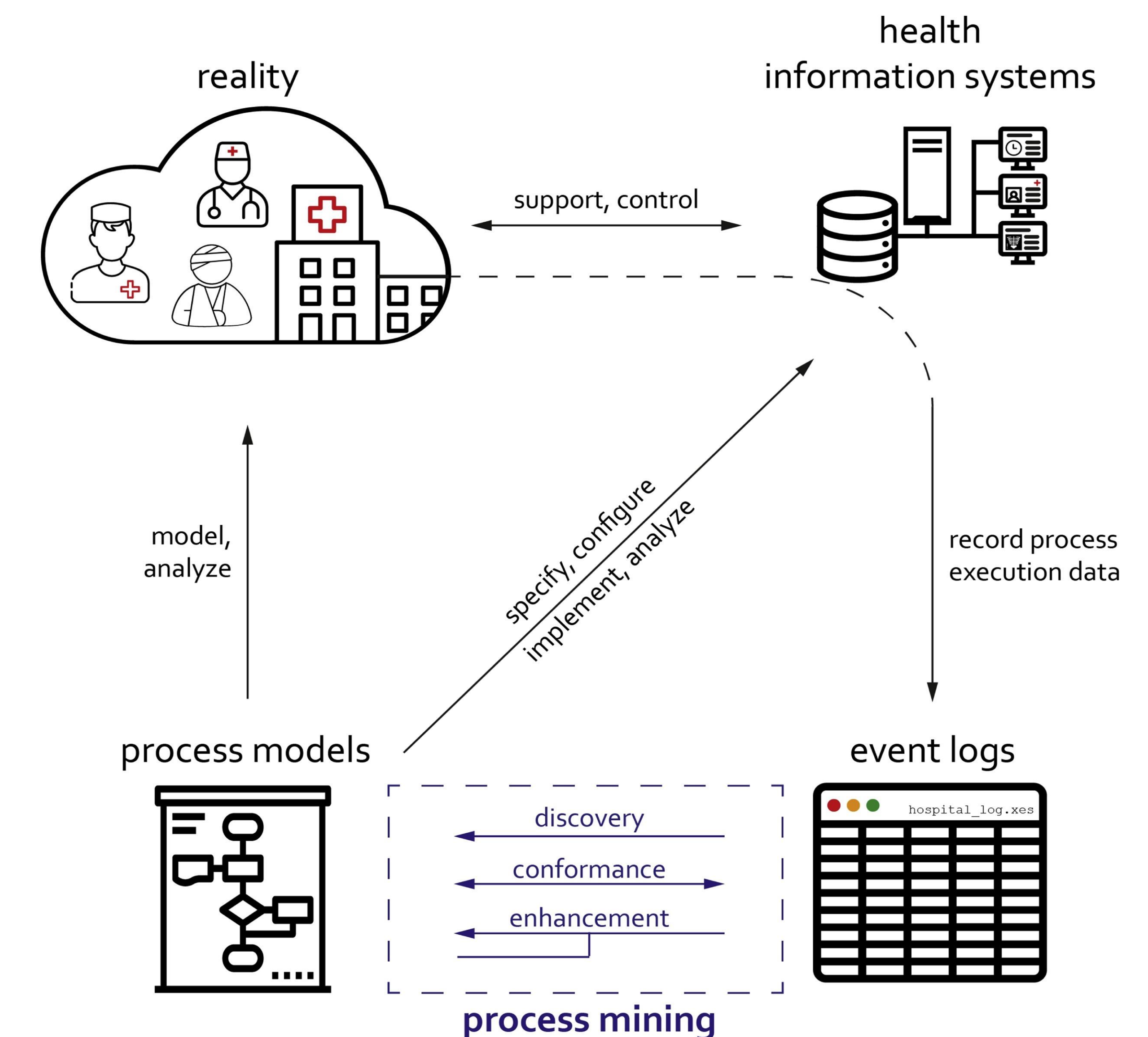


Figure 1. Proces of WP 1. Reference: Niels Martin et al,2020

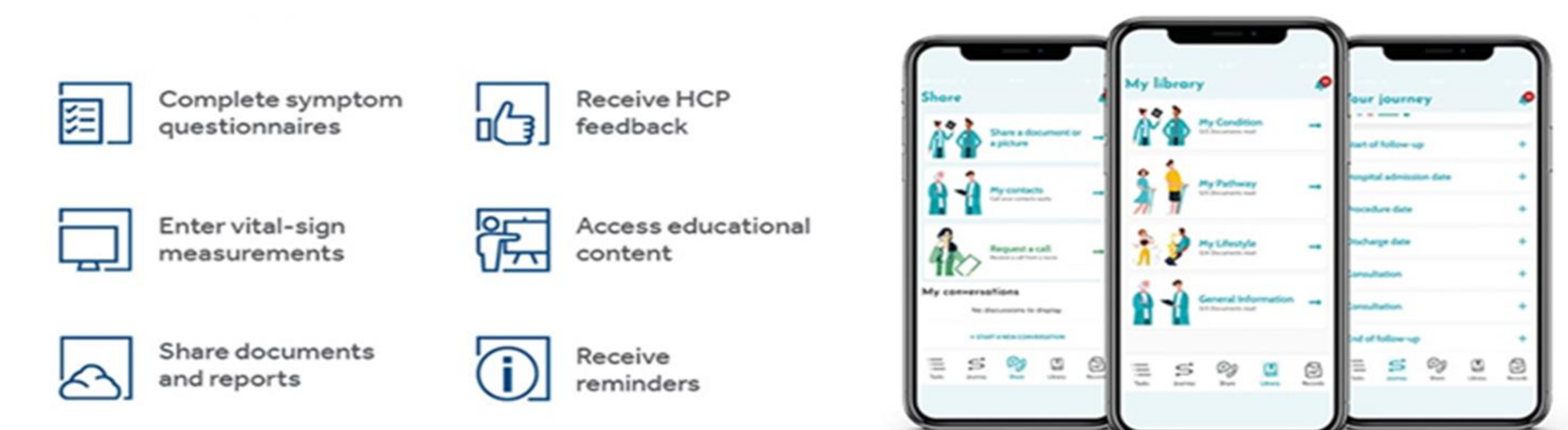


Figure 2. PVA, an example of the GetReady application

## Conclusion

The consortium hypothesizes that a data-driven approach is essential for maintaining accessible, high-quality healthcare at affordable costs.