

## DUQuE final summary report

### **Executive summary**

- This document presents the conceptual framework, methodology and results of the “Deepening our Understanding of Quality Improvement in Europe (DUQuE) Project”. The overall aim of the project was to study the relationship between organizational quality improvement systems, organizational culture, professional involvement and patient involvement in quality management and their effect on the quality of hospital care (clinical effectiveness, patient safety and patient experience).
- DUQuE was designed as a cross-sectional, multi-method study with measurements at hospital, departmental and patient level. A total of 192 hospitals from eight countries (the Czech Republic, France, Germany, Poland, Portugal, Spain, Turkey, the United Kingdom) participated in the data collection. Data from 188 hospitals were included in the analysis. A total of 25,812 measures were collected and analysed, including 9,712 professional questionnaires, 6,536 patient questionnaires, 9,021 chart reviews, 366 external visits to departments and hospitals and 177 sets of hospital administrative data. Response rates were exceptional, ranging from 74% to 99%, depending on the type of measure.
- Within the DUQuE project we developed and validated seven measures for quality management: At hospital level the (i) quality management systems index, (ii) the quality management compliance index and (iii) the clinical quality implementation index and at departmental level indices for (iv) specialized expertise and responsibility, (v) evidence-based organization of pathways, (vi) patient safety strategies and (vii) clinical review.
  - These measure of quality management were not associated with dominant types of organizational culture (as measured by the Competing Values Framework), however, a higher degree of social capital existed in hospitals that exhibit higher maturity of their quality management systems.
  - Few leading physicians and nurses reported to be fully involved in the management of their hospital. More clinical leaders reported positive perceptions of teamwork and safety climate than frontline clinicians and more physicians had positive perceptions of teamwork and safety climate than nurses did. Implementation of quality management systems was generally positively related to both teamwork and safety climate.
  - Hospital level quality management systems were marginally associated with clinical outcome indicators; however, at department level associations between quality management strategies and clinical process measures were substantial. For patient experience measures, we did not detect systematic trends and sometimes counterintuitive findings.
  - A combination of accreditation and certification was a more powerful predictor of departmental organisation and clinical outcome than either assessment in isolation; however, the association varied between departments and between conditions.
  - Hospital boards discussed quality performance more frequently when the CEO perceived more external pressure and discussing quality performance at Board meetings more often was associated with a higher quality management system score
- Recommendations of the project are synthesized in the document “Seven ways to improve quality and safety in your hospital”. For each of the seven strategies, we provide an overview on the underlying evidence base and suggest prompts to guide improvement efforts.