



# A nationwide Hospital Survey on Patient Safety Culture in Belgian hospitals: Analysis and benchmarking

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#### **CONTEXT**

In 2007 the Belgian government provided a framework for the implementation of quality and patient safety initiatives in the hospitals with a yearly additional financing (annual budget of  $\in$  6.8 million in 2007). One of the main priorities in this program (2007-2012) is to promote the development of a culture of safety.

#### **OBJECTIVES**

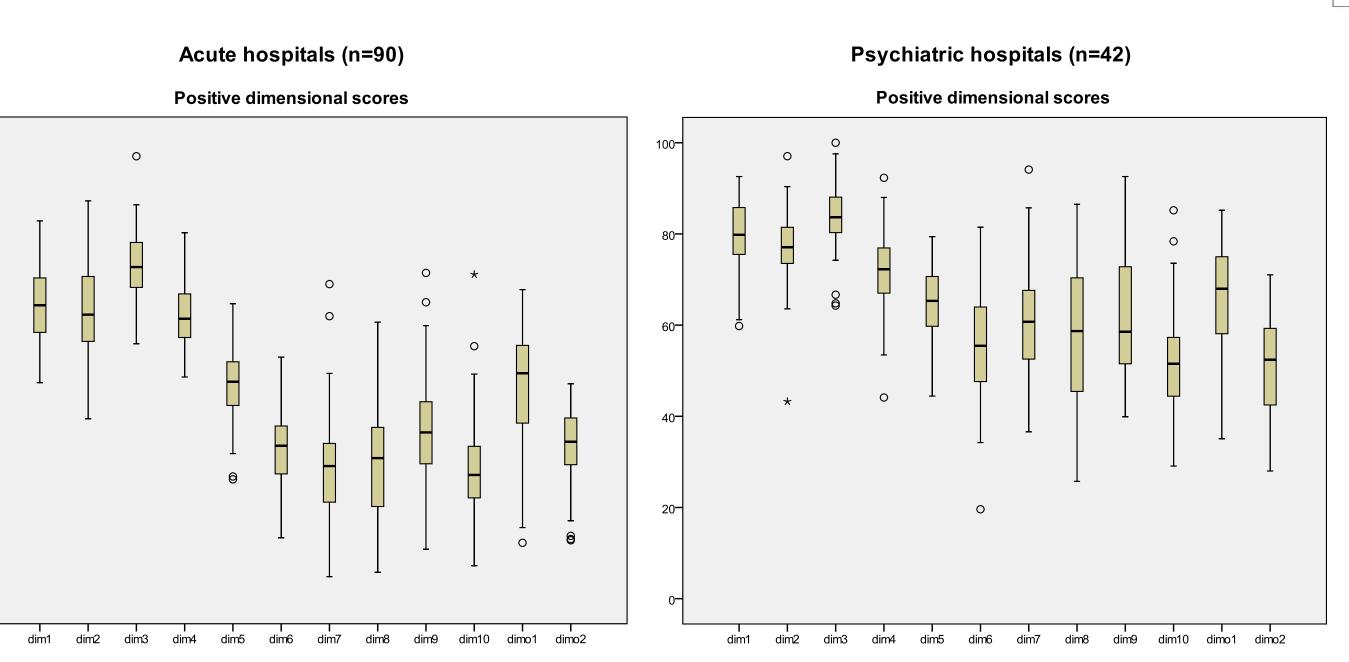
- To measure patient safety culture in Belgian hospital settings;
- To analyze the results of hospitals which voluntarily submitted their data for comparison to other hospitals.

#### **METHODS**

The Hospital Survey on Patient Safety Culture was distributed organization-wide in 185 (97%) Belgian hospitals participating in the federal program on quality and safety in 2007-2009. Hospitals were free to distribute the survey electronically or paper based. The questionnaire was distributed anonymously to all individuals working in direct or indirect interaction with patients. Participating hospitals were invited to submit their data to a comparative database. All data were analyzed confidentially. Homogeneous response groups were sought by hierarchical cluster analysis. A subgroup analysis was performed based on work area and staff position.

### **RESULTS**

• 90 acute, 42 psychiatric and 11 long term hospitals submitted their data for comparison to other hospitals.



**Figure 1: Boxplots for Positive Dimensional Scores** 

This benchmark database includes 55 238 completed questionnaires (53.7% response rate, **Figure 1**).

• Hierarchical clustering of dimensions resulted in two main clusters (**Figure 2**).

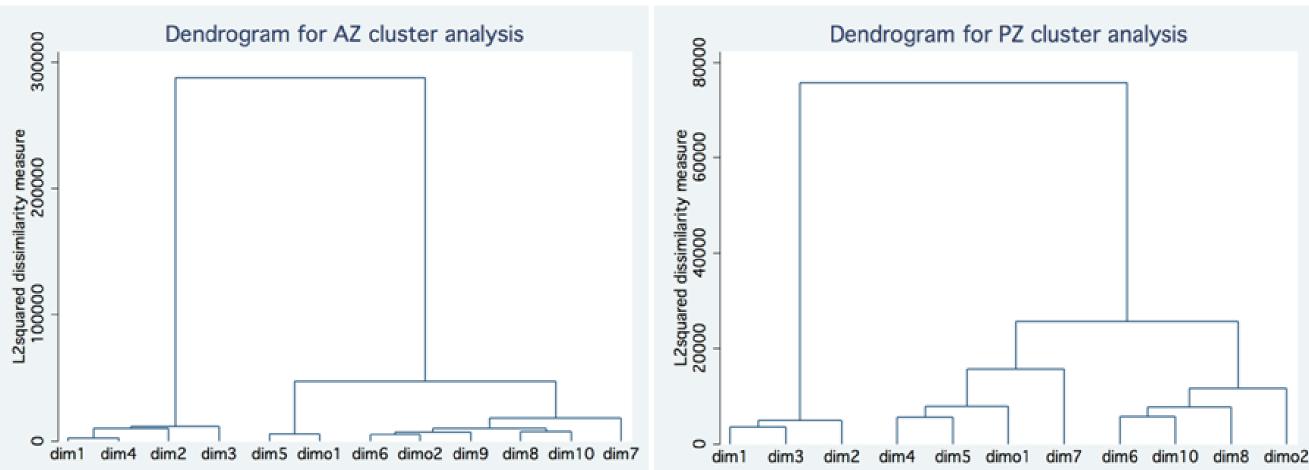
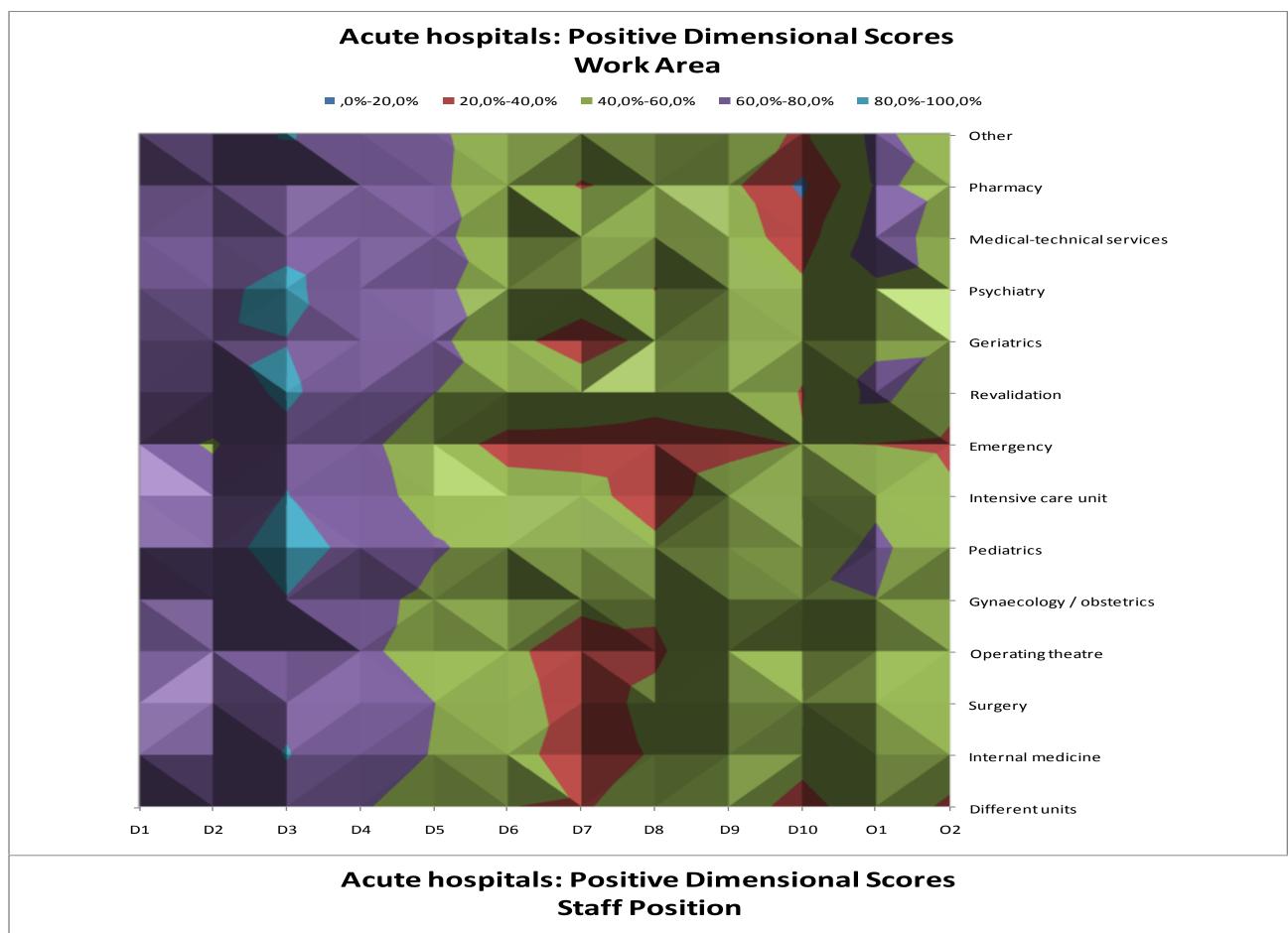
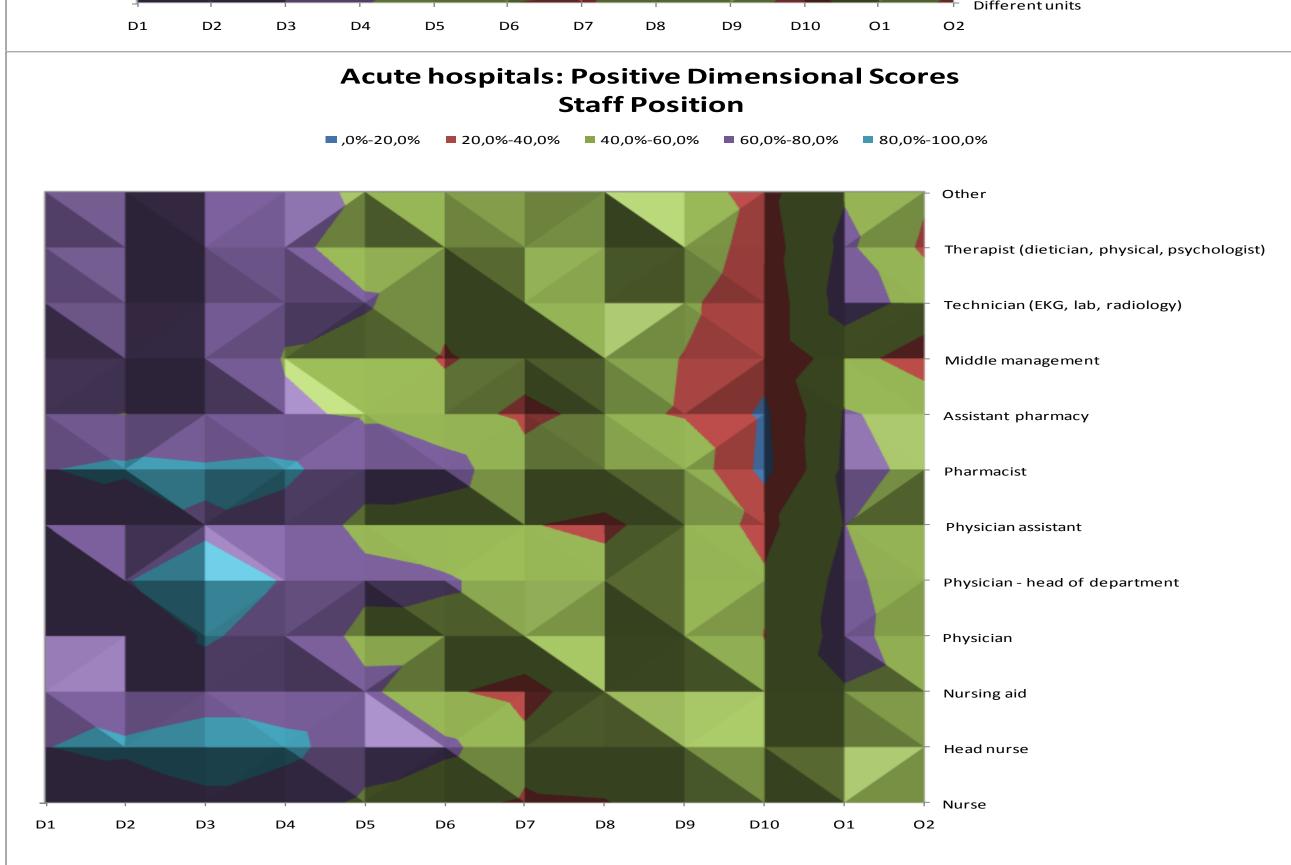


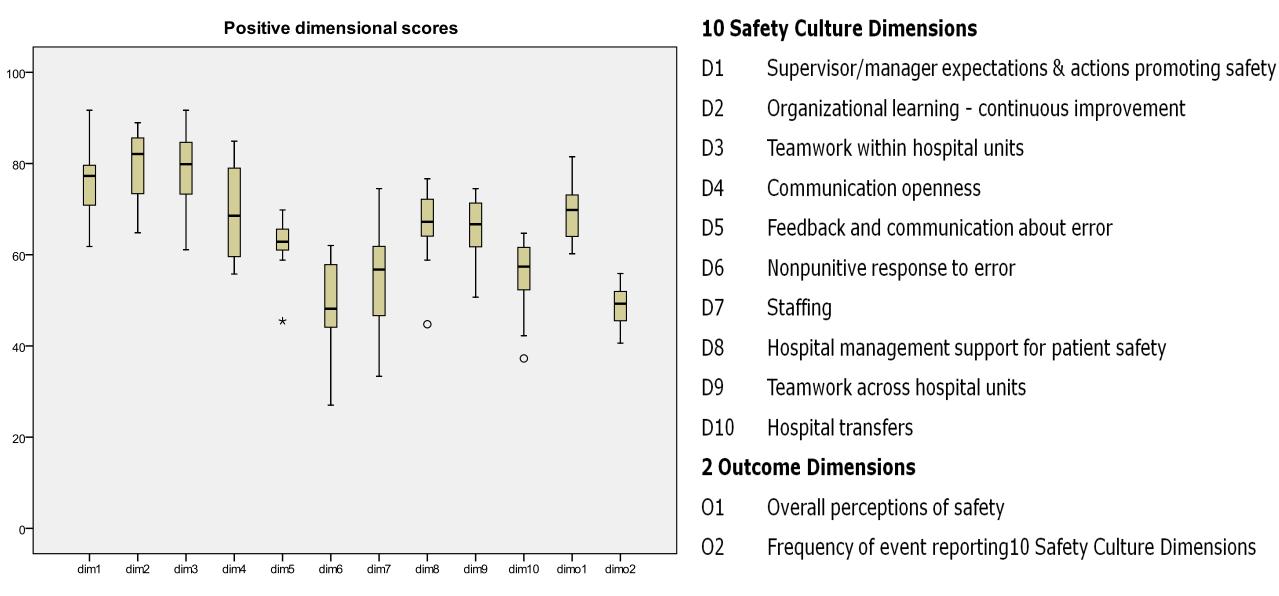
Figure 2: Dendograms for cluster analysis (acute and psychiatric hospitals)

- Subanalysis (for acute hospitals) showed that:
- Respondents working in the emergency department, intensive care unit, operating theatre and in many different hospital units/no specific unit had overall lower scores than the mean dimensional scores.;
- Respondents working in medical-technical services or pharmacy had lower scores for dimensions D1, D2 and D3;

Figure 3: Subanalysis work area/ staff postion (acute hospitals)







Long term hospitals (n=11)

- The working areas pediatrics, revalidation and psychiatry had remarkably higher overall scores in comparison with the mean dimensional scores;
- Clinical and nursing leaders, including head nurses, staff physicians and hospital pharmacists, had overall higher dimensional scores in comparison with the nurses, nursing aids, physician assistants and pharmacy assistants;
  - Administration and middle management had lower scores compared with the mean dimensional scores (Figure 3).

## CONCLUSIONS

The identification of clusters indicates the need for a different approach towards the implementation of interventions aimed at improving the culture of patient safety. Certain clusters require unit level improvements, whereas others demand a hospital wide policy. Subanalysis of the individual responses within work area or staff position can highlight dimensions that need to be addressed within these levels.

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