

Appendix 1: Positive deviance case-selection data

This appendix presents the quantitative data used to identify positive deviance cases for qualitative inquiry. We used two case-selection patterns: improvement in selected patient safety culture dimensions and registered simulation activity during the intervention year.

Patient safety culture was measured using the Safety Attitudes Questionnaire, Danish version (SAQ-DK). The SAQ-DK scores refer to staff perceptions of patient safety culture. Across the four intervention departments, the clearest improvement pattern was seen in perceptions of management and working conditions. As summarised in Table A1, Departments 1 and 3 showed statistically significant improvements in both dimensions, whereas Departments 2 and 4 did not show the same pattern. The underlying patient safety culture scores are presented in Table A2. Mean changes were tested using unpaired sample t-tests.

Registered simulation activity was used to identify departments where simulation appeared to have gained a stronger practical foothold during the intervention year. As shown in Figure A1, two departments conducted more registered simulation sessions during the intervention year than the other intervention departments. These departments were identified as high-activity positive deviance cases.

Table A1. Summary of culture-improvement case selection

Department	Pre n	Post n	Main pattern used for case selection	Case-selection interpretation
Department 1	173	123	Significant improvement in perceptions of management and working conditions	Culture-improvement positive deviance case
Department 2	71	61	No statistically significant improvement in the selected patient safety culture dimensions	Not selected through this case-selection pattern
Department 3	101	89	Significant improvement in perceptions of management and working conditions	Culture-improvement positive deviance case
Department 4	61	37	No statistically significant improvement in the selected patient safety culture dimensions	Not selected through this case-selection pattern

Table A2. Patient safety culture across departments before and after the intervention

Department	SAQ-DK dimension	Pre-measurement, mean (SD)	Post-measurement, mean (SD)	Mean change (95% CI)
Department 1	Teamwork climate	81.2 (11.8)	81.8 (14.8)	0.6 (-2.5; 3.6)
Department 1	Safety climate	68.8 (16.8)	70.9 (17.2)	2.0 (-1.9; 6.0)
Department 1	Job satisfaction	77.4 (12.9)	79.5 (15.3)	2.1 (-1.2; 5.3)
Department 1	Stress recognition	71.95 (20.68)	73.68 (18.69)	1.73 (-2.89; 6.34)
Department 1	Perceptions of management	58.90 (18.40)	68.35 (17.47)	9.45 (5.27; 13.63)*
Department 1	Working conditions	70.81 (20.77)	78.66 (18.76)	7.85 (3.22; 12.48)*
Department 2	Teamwork climate	90.9 (9.0)	90.3 (7.5)	-0.6 (-3.5; 2.3)
Department 2	Safety climate	77.7 (13.8)	75.4 (14.8)	-2.2 (-7.2; 2.7)
Department 2	Job satisfaction	87.6 (10.3)	86.6 (11.4)	-1.0 (-4.7; 2.8)
Department 2	Stress recognition	69.34 (19.52)	64.41 (21.26)	-4.92 (-11.95; 2.10)
Department 2	Perceptions of management	72.59 (16.63)	73.72 (15.72)	1.12 (-4.48; 6.72)
Department 2	Working conditions	82.39 (16.52)	87.23 (10.97)	4.83 (-0.08; 9.75)
Department 3	Teamwork climate	90.8 (11.0)	93.0 (7.4)	2.3 (-0.5; 5.0)
Department 3	Safety climate	80.3 (14.4)	82.7 (12.7)	2.3 (-1.6; 6.2)
Department 3	Job satisfaction	90.5 (11.2)	93.0 (8.4)	2.5 (-0.3; 5.4)
Department 3	Stress recognition	65.24 (21.21)	66.29 (20.03)	1.05 (-4.88; 6.98)
Department 3	Perceptions of management	73.87 (16.81)	81.33 (14.25)	7.46 (2.97; 11.96)*
Department 3	Working conditions	79.70 (23.93)	90.07 (10.80)	10.37 (4.94; 15.81)*
Department 4	Teamwork climate	89.2 (8.8)	89.9 (9.1)	0.7 (-3.0; 4.4)
Department 4	Safety climate	73.1 (15.7)	76.3 (15.4)	3.2 (-3.3; 9.6)
Department 4	Job satisfaction	86.1 (10.8)	89.0 (10.8)	2.8 (-2.1; 7.7)
Department 4	Stress recognition	69.36 (21.77)	69.09 (21.55)	-0.28 (-9.25; 8.69)
Department 4	Perceptions of management	69.45 (15.16)	72.50 (15.61)	3.05 (-3.30; 9.39)
Department 4	Working conditions	85.66 (11.99)	86.94 (11.42)	1.28 (-3.59; 6.15)

* Indicates a statistically significant difference ($p < 0.05$).

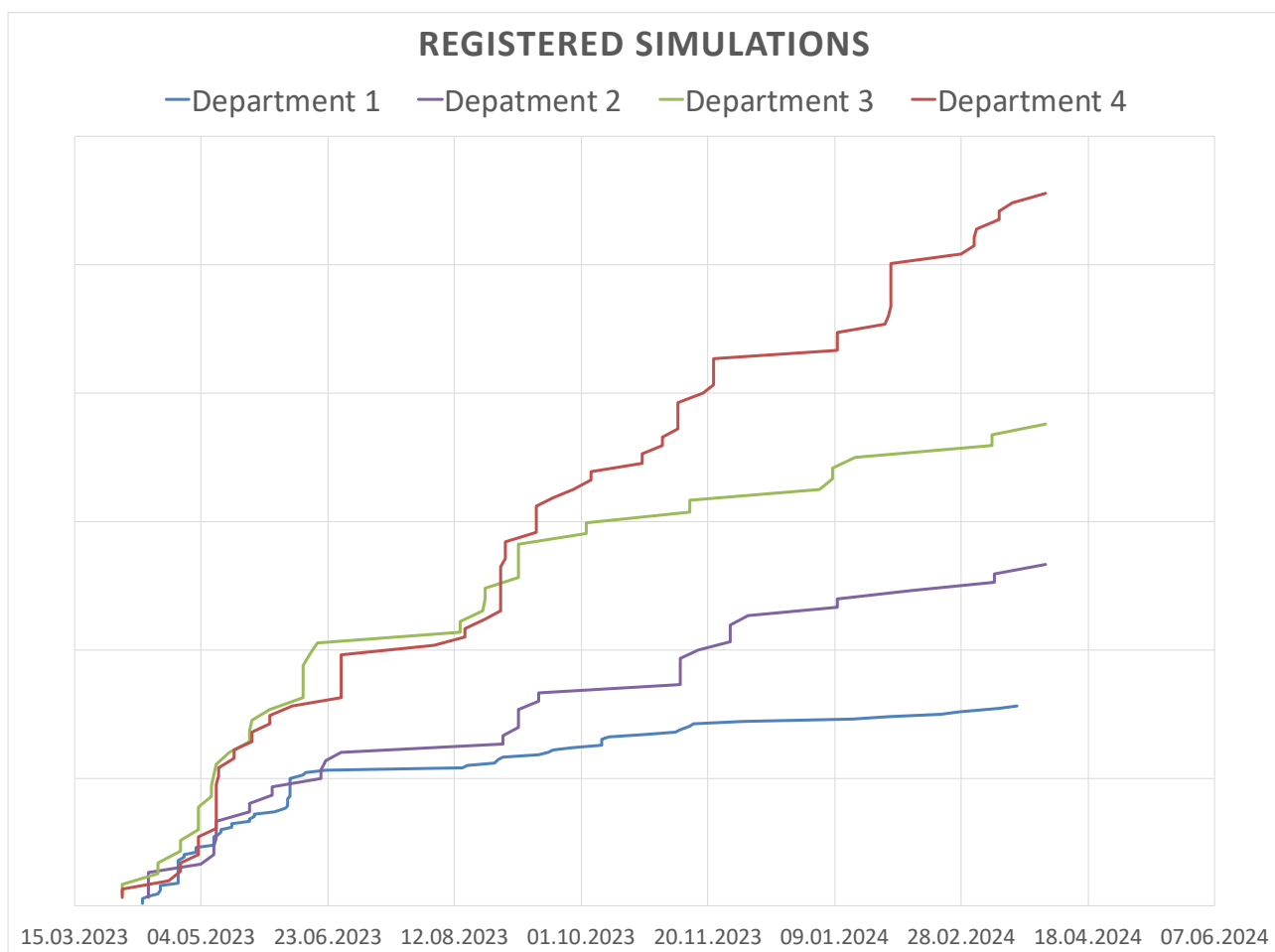


Figure A1. Registered simulation activity across departments before and during the intervention