

# HSST Induction

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## Leadership & Management

### Dr Nathan Proudlove

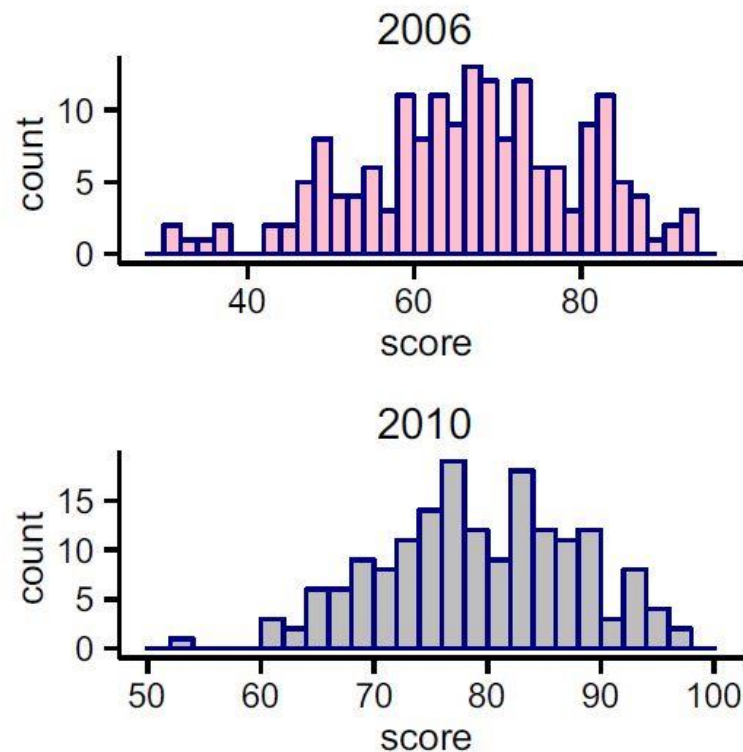
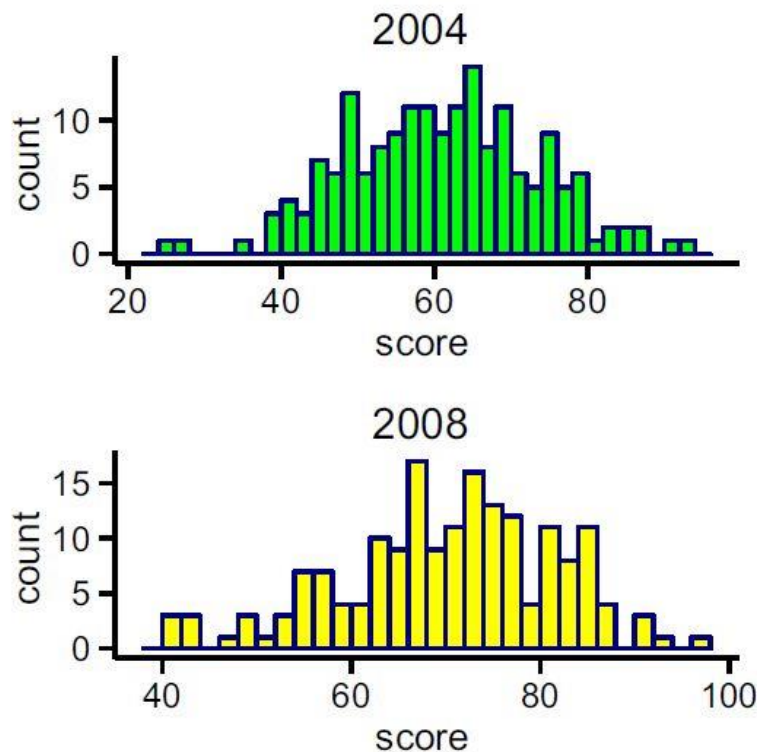
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### Prof Naomi Chambers

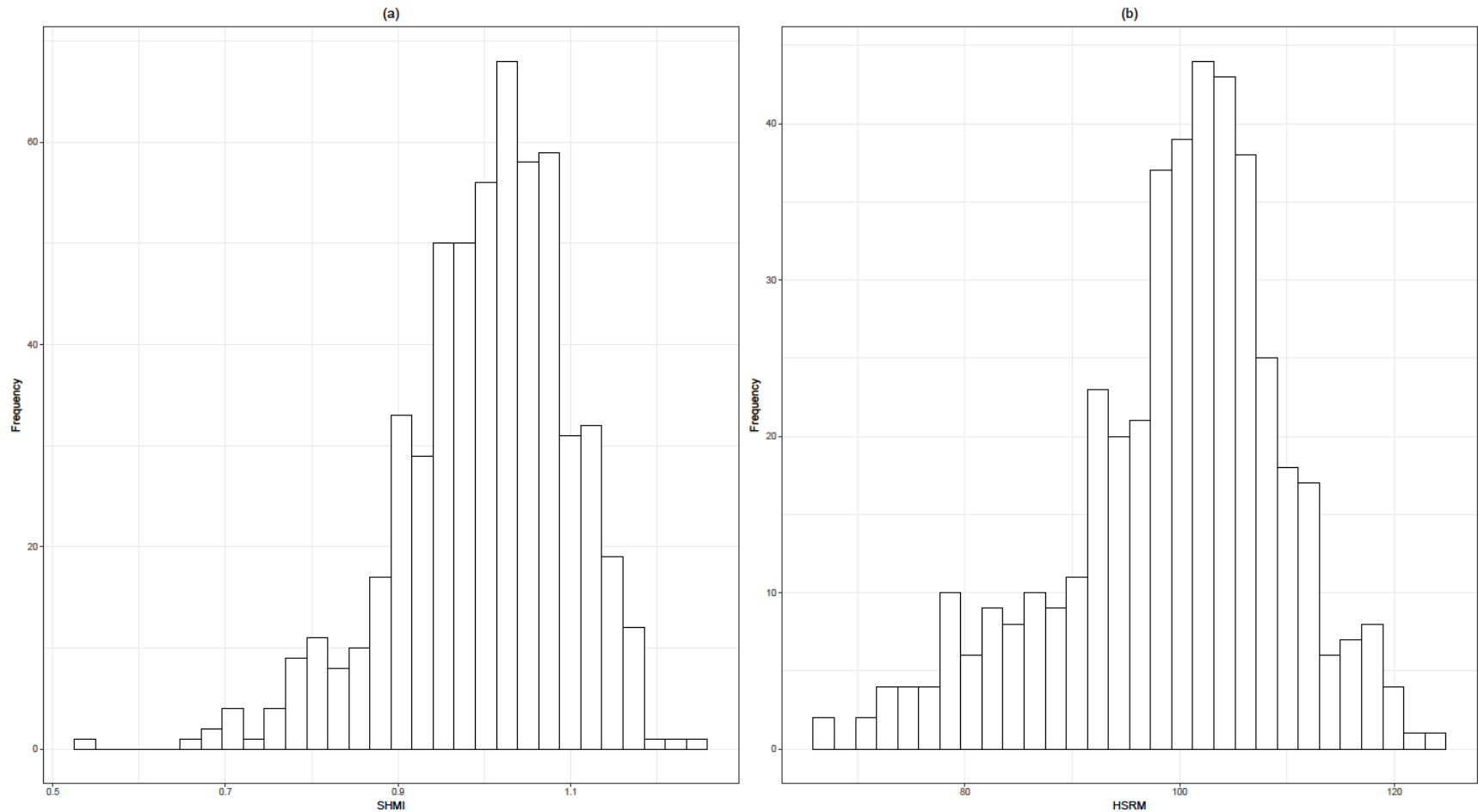
# Performance varies across trusts

## National Sentinel Stroke Audit scores



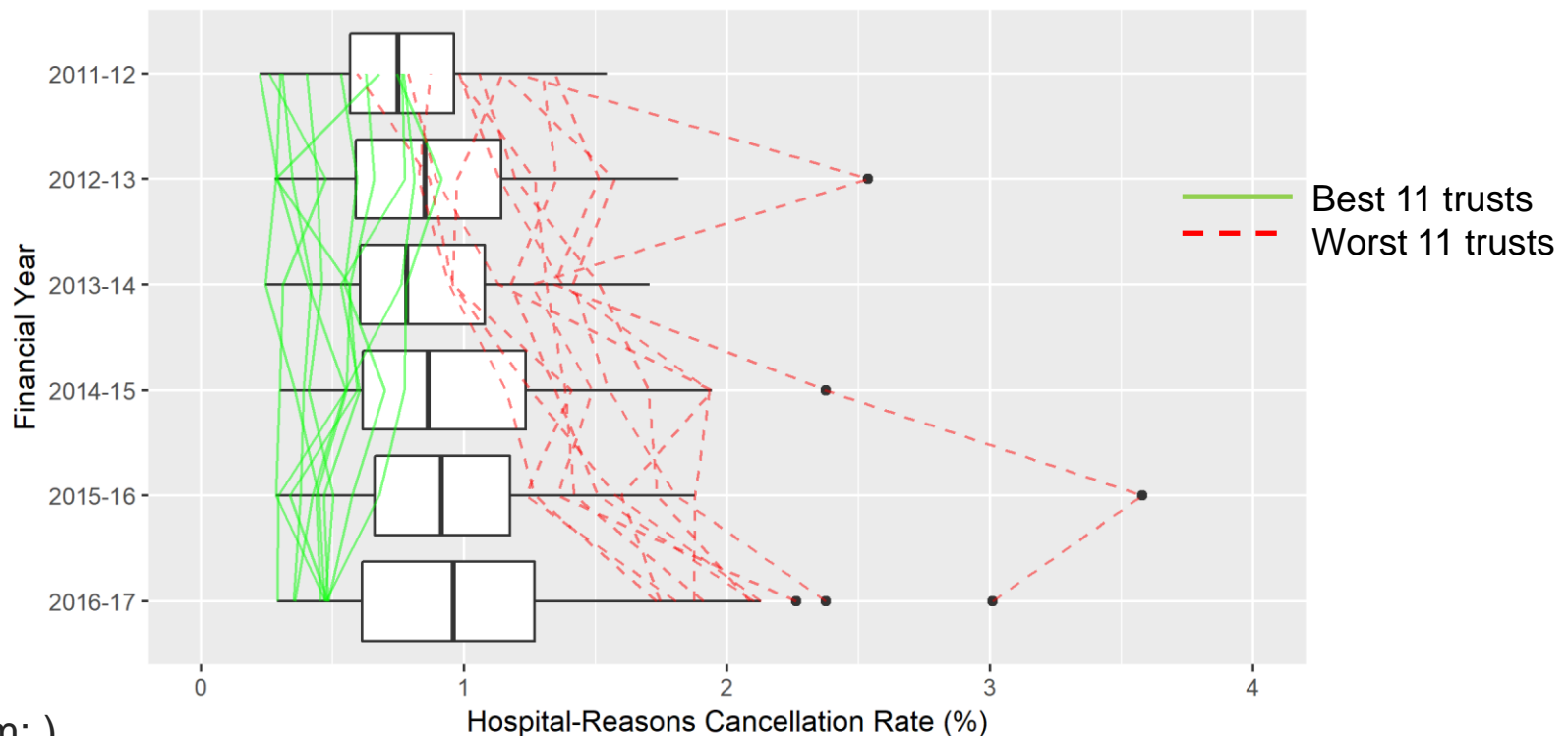
Ali, M., Salehnejad, R. and Mansur, M. (2018), 'Hospital heterogeneity: what drives the quality of health care', *The European Journal of Health Economics* 19(3), 385–408.

## Mortality (SHMI and HSMR)



# And differences are persistent

## Elective operation cancellation rates



(updated from: )

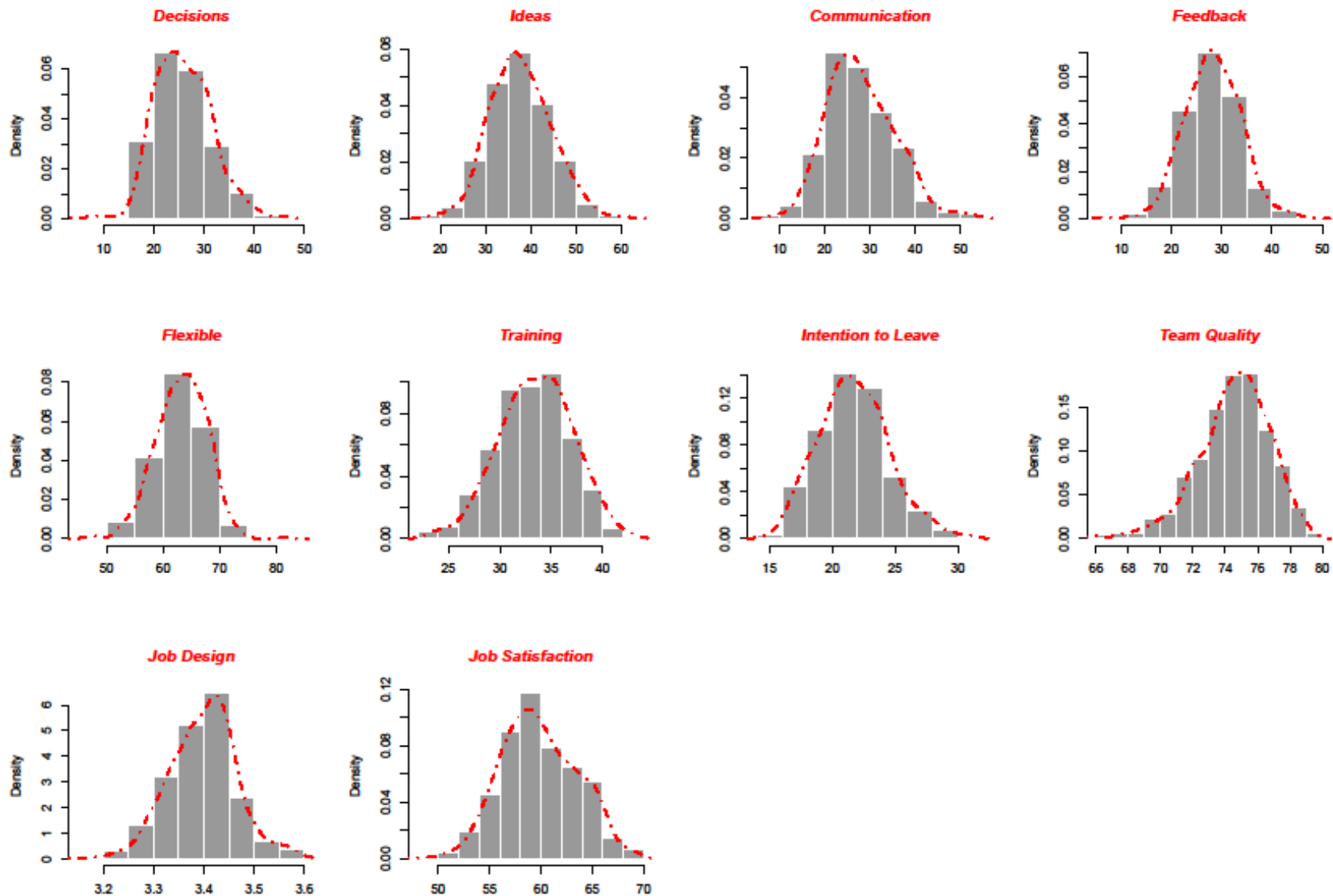
Proudlove, N. C., Samarasinghe, B. S. and Walshe, K. (2018), 'Investigating consistent patterns of variation in short-notice cancellations of elective operations: The potential for learning and improvement through multi-site evaluations', *Health Services Management Research* 31(3), 111–119.



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Alliance Manchester Business School

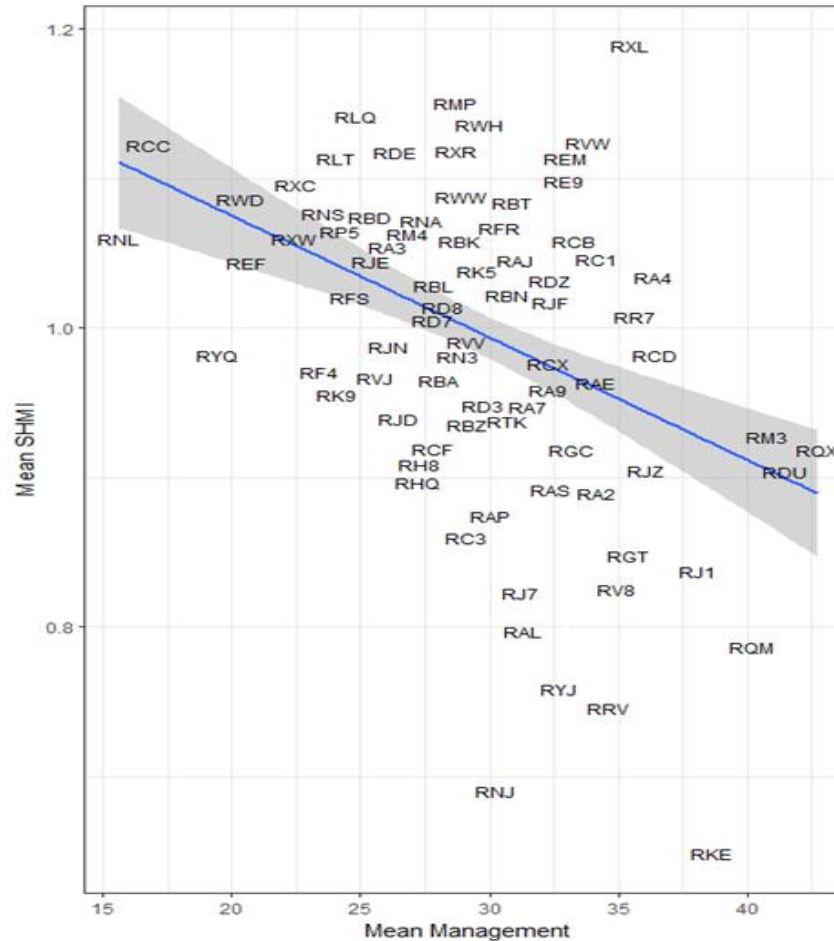
## What might 'explain' this?

# NHS National Staff Survey: trust scores vary



# Associations between NSS Mgmt Practices and performance

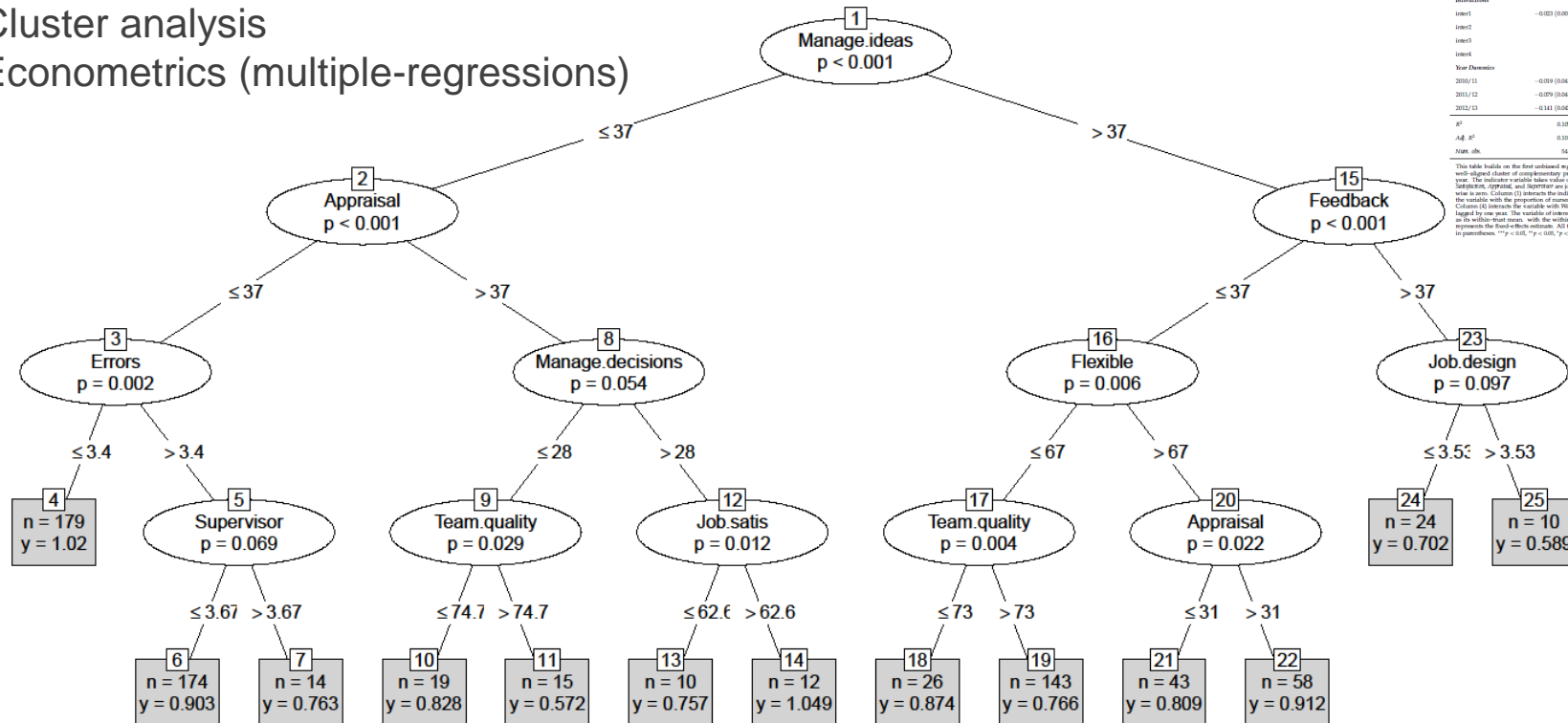
e.g. mortality



Salehnejad, R., Ali, M., Proudlove, N. C. and Lyons, M. (2018), Management practices drivers of hospital patient safety data, Technical report, University of Manchester working paper (draft).

# Analyses

Classification and regression trees,  
Cluster analysis  
Econometrics (multiple-regressions)



	(1)	(2)	(3)	(4)
Intercept	0.228 (1.141)	1.097 (1.143)	2.229 (1.804)	1.776 (1.183)
<b>Real Characteristics</b>				
Teaching	0.051 (0.040)	-0.009 (0.074)	0.012 (0.073)	0.018 (0.077)
Foundation Trust	-0.072 (0.042)*	-0.007 (0.041)**	-0.058 (0.040)	-0.066 (0.041)**
Hospital Beds	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)
<b>Workforce Skill-Mix</b>				
Prop. Medical	0.001 (0.013)	0.007 (0.012)	-0.010 (0.011)	-0.008 (0.011)
Prop. Nurse	0.008 (0.007)	0.027 (0.009)***	0.007 (0.006)	0.006 (0.006)
Prop. Support	0.007 (0.007)	0.012 (0.007)*	0.008 (0.007)	0.007 (0.006)
<b>Patient Characteristics</b>				
Prop. Emergency	-0.006 (0.004)	-0.004 (0.004)	-0.003 (0.004)	-0.004 (0.004)
Prop. Female	-0.013 (0.010)	-0.016 (0.011)	-0.014 (0.010)	-0.014 (0.010)
Patients aged above 60	-0.002 (0.006)	-0.006 (0.006)	-0.002 (0.006)	-0.001 (0.006)
<b>MTF and Waiting Times</b>				
Inpatient Waiting	0.229 (0.006)***	0.250 (0.004)***	0.212 (0.003)***	0.436 (0.156)***
MTF	0.001 (0.006)	0.006 (0.005)	0.003 (0.005)	0.004 (0.005)
<b>Average</b>				
Prop. Medical	-0.028 (0.027)		-0.050 (0.011)***	
Prop. Nurse				-0.019 (0.040)
Prop. Support				-0.049 (0.224)**
<b>Interactions</b>				
Inter1	-0.022 (0.005)***			
Inter2		-0.007 (0.002)***		
Inter3			-0.008 (0.003)***	
Inter4				-0.002 (0.016)**
<b>Year Dummies</b>				
2010/11	-0.019 (0.042)	-0.013 (0.039)	-0.010 (0.041)	-0.010 (0.037)
2011/12	-0.070 (0.046)*	-0.044 (0.042)	-0.066 (0.044)*	-0.063 (0.045)*
2012/13	-0.141 (0.040)***	-0.109 (0.041)**	-0.151 (0.045)***	-0.153 (0.047)***
R <sup>2</sup>	0.10*	0.129	0.105	0.108
Adj. R <sup>2</sup>	0.105	0.125	0.102	0.105
Num. obs	545	551	551	545

This table builds on the first ordered regression tree to construct an indicator variable to capture a possible well-aligned cluster of complementary practices. The 488-obs variables and waiting time are lagged by one year. The indicator variable takes value one whenever late, distance, feedback, job design, team quality, job satisfaction, appraisal, and supervisor are jointly equal to or exceed their within-trust upper quartile and other variables are zero. Column (1) indicates the indicator variable with proportion of medical staff. Column (2) indicates the variable with the proportion of nurses. Column (3) indicates it with the proportion of support staff. And Column (4) indicates the variable with waiting time. The measures of human capital and waiting time are all lagged by one year. The variable of interest in each column appears twice: once in its original form and once as its within-trust mean, with the within-trust mean being indicated, the coefficient of the interaction term represents the fixed-effect estimate. All the models include year dummies. Robust standard errors are given in parentheses. \*\*\*p < 0.01, \*\*p < 0.05, \*p < 0.1.

Salehnejad, R., Ali, M. and Proudlove, N. (2018), 'Combining regression trees and panel regression for exploring and testing the impact of complementary management practices on short-notice elective operation cancellation rates', *University of Manchester working paper (in journal Review & Resubmit process)*.

# The World Management Survey

## 3) Standardisation and Protocols

*Tests if there are standardised procedures (e.g. integrated clinical pathways) that are applied and monitored systematically*

Score:

1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ -99 ☐

- a) How standardised are the main clinical processes?
- b) How clear are clinical staff members about how specific procedures should be carried out?
- c) What tools and resources does the clinical staff employ (e.g. checklists or patient bar-coding) to ensure that they have the correct patient and/ or conduct the appropriate procedure?
- d) How are managers able to monitor whether clinical staff are following established protocols?

Score 1: Little standardisation and few protocols exists (e.g. different clinical staff have different approaches to the same treatments)

Score 3: Protocols have been created, but are not commonly used because they are too complicated or not monitored adequately (e.g. may be on website or in manual only)

Score 5: Protocols are known and used by all clinical staff and regularly followed up on through some form of monitoring or oversight

## 4) Good use of Human Resources

*Tests whether staff are deployed to do what they are best qualified for, but nevertheless help out elsewhere when needed*

Score:

1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ -99 ☐

- a) With respect to your staff, what happens when different hospital areas become busier than others?
- b) How do you know which tasks are best suited to different staff?
- c) What kind of procedures do you have in place to assist staff flow between areas; for example, is there one central person or centre which coordinates this process?

Score 1: Staff often end up undertaking tasks for which they are not qualified or over-qualified when they could be used elsewhere; staff do not move across units, even when they are generally underutilised

Score 3: Senior staff try to use the right staff for the right job, but do not go to great lengths to ensure this; staff may move but often in an uncoordinated manner

Score 5: Staff recognise effective human resource deployment as a key issue and will go to some lengths to make it happen; shifting staff from less busy to busy areas is done routinely and in a coordinated manner, based on the documented skills

## 5) Continuous Improvement

*Tests processes for and attitudes towards continuous improvement, and whether learnings are captured and documented*

Score:

1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ -99 ☐

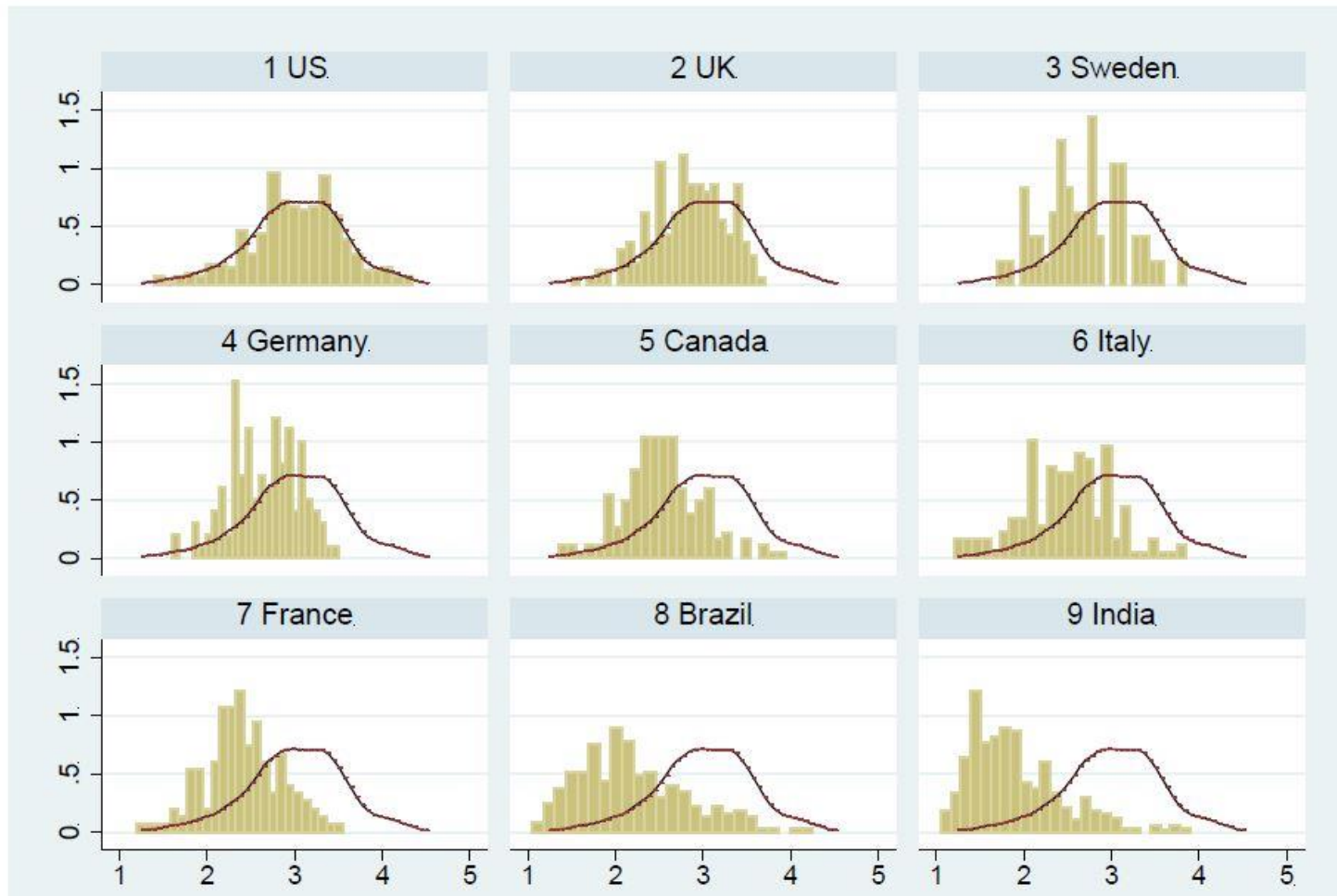
- a) How do problems typically get exposed and fixed?
- b) Can you talk me through the process for a recent problem that you faced?
- c) When processes do change, what is the main driver of change?
- d) Who within the hospital typically gets involved in changing or improving? How do/ can different staff groups get involved in this process? Can you think of any examples?

Score 1: Process improvements are made only when problems occur, or only involve one staff group

Score 3: Improvements are made in irregular meetings involving all staff groups, to improve performance in their area of work (e.g. ward or theatre)

Score 5: Exposing problems in a structured way is integral to an individuals responsibilities and resolution involves all staff groups, along the entire patient pathway; exposing and resolving problems is a part of a regular business process rather than being the result of extraordinary efforts

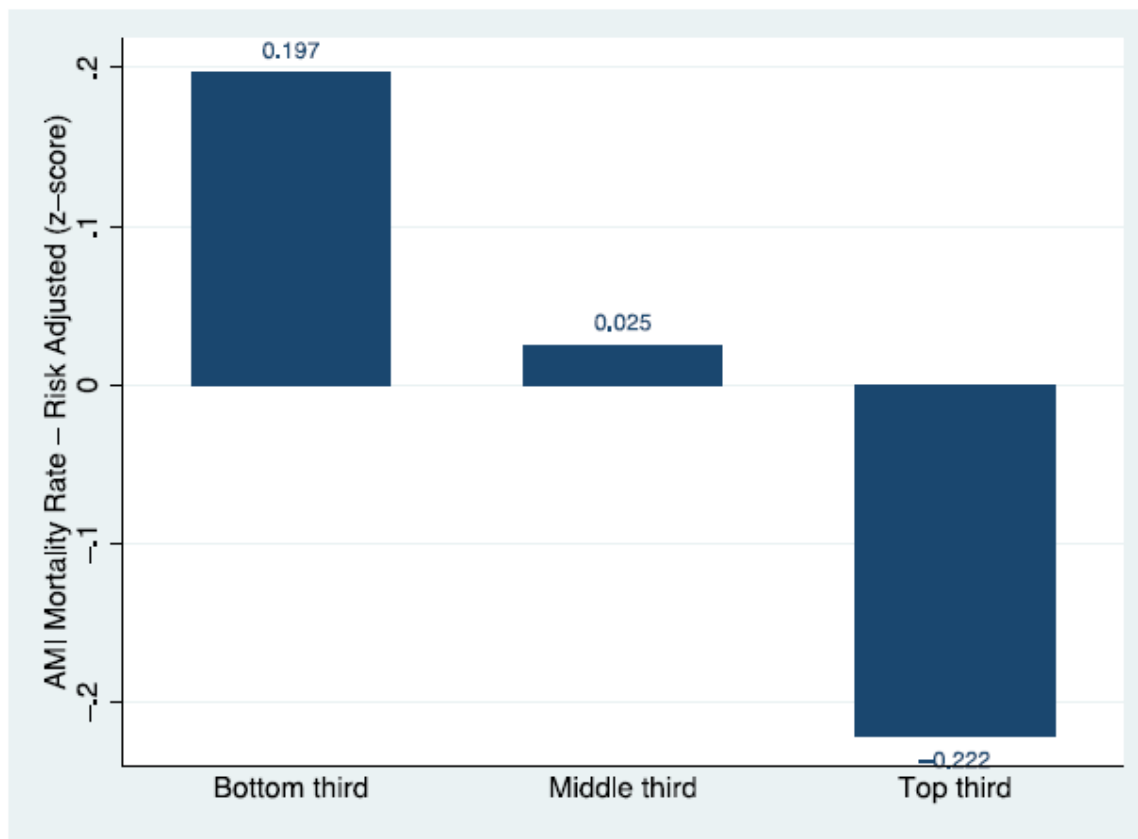
# World Management Survey: Healthcare (hospital organisation) data



Bloom, N., Sadun, R. and Van Reenen, J. (2014), Does management matter in healthcare?, Technical report, Stanford Mimeo.

URL: [http://www.people.hbs.edu/rsadun/Management\\_Healthcare\\_June2014.pdf](http://www.people.hbs.edu/rsadun/Management_Healthcare_June2014.pdf)

**Exhibit 5 (Figure): Management and AMI Mortality Rates**



Again, links with mortality etc.. Internationally...

**Notes:** Based on 324 observations with available AMI information (Canada:29; Sweden: 48; UK: 74; US: 178). We z-score the AMI data within country to take into account differences in the way the AMI rates are calculated across countries, and keep only hospitals with at least 20 AMI cases in a year. For both AMI rates and Management, we take residuals from a regression including country dummies, hospital controls(number of employees, specialty, percentage of managers with a clinical degree), noise controls (13 interviewer dummies, the seniority and tenure of the manager who responded, the duration of the interview, and an indicator of the reliability of the information as coded by the interviewer, interviewee type) and regional dummies. AMI mortality rates data refer to 2009 in the US and UK, to 2008 in Sweden and the average between 2007 and 2009 in Canada. The p-value on the difference between the bottom and the middle tercile is 0.204; the p-value on the difference between the bottom and the top tercile is 0.001. The p-value on the difference between the middle and the top tercile is 0.07.

Bloom, N., Sadun, R. and Van Reenen, J. (2014), Does management matter in healthcare?, Technical report, Stanford Mimeo.

URL: [http://www.people.hbs.edu/rsadun/Management\\_Healthcare\\_June2014.pdf](http://www.people.hbs.edu/rsadun/Management_Healthcare_June2014.pdf)

# You can have a go at benchmarking your own Trust/hospital/department/unit

rg/benchmark-your-organization/benchmark-your-hospital/

Bookmarks Egg 15min P: UoM MBS My Port MyMcr L2L B W Iw G Adv R B HF Trn RzSaf Saf W in in



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## Performance Monitoring

Performance Monitoring is all about how well your performance monitoring system informs your and your employees' day-to-day operations: how do processes and attitudes are screened, how meaningful are your metrics in relation to how frequently they measured and reviewed, to what degree the detection of different levels of process-based performance leads to adequate and consequential process

3

### Standardisation and protocols

How standardized are the main clinical processes?

- 1 Little standardisation and few protocols exists (e.g. different clinical staff have different approaches to the same treatments).
- 2 Between 1 and 3
- 3 Protocols have been created but are not commonly used because they are too complicated or not monitored adequately (e.g. may be on website or in manual only).
- 4 Between 3 and 5
- 5 Protocols are known and used by all clinical staff and regularly followed up on through some form of monitoring or oversight.

4

### Good use of human resources

With respect to your staff, what happens when different hospital areas become busier than others?

- 1 Staff often end up undertaking tasks for which they are not qualified or over-qualified when they could be used elsewhere; staff do not move across units, even when they are generally underutilised.
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- 3 Senior staff try to use the right staff for the right job but do not go to great lengths to ensure this; staff may move but often in an uncoordinated manner.
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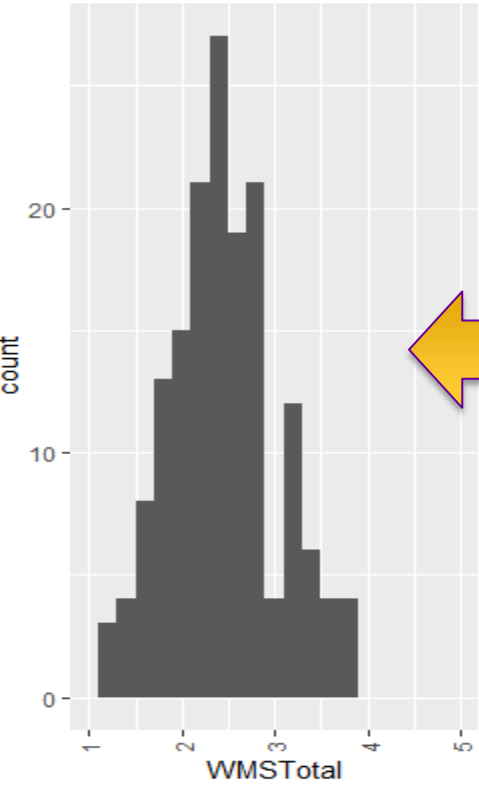
5

### Continuous improvement

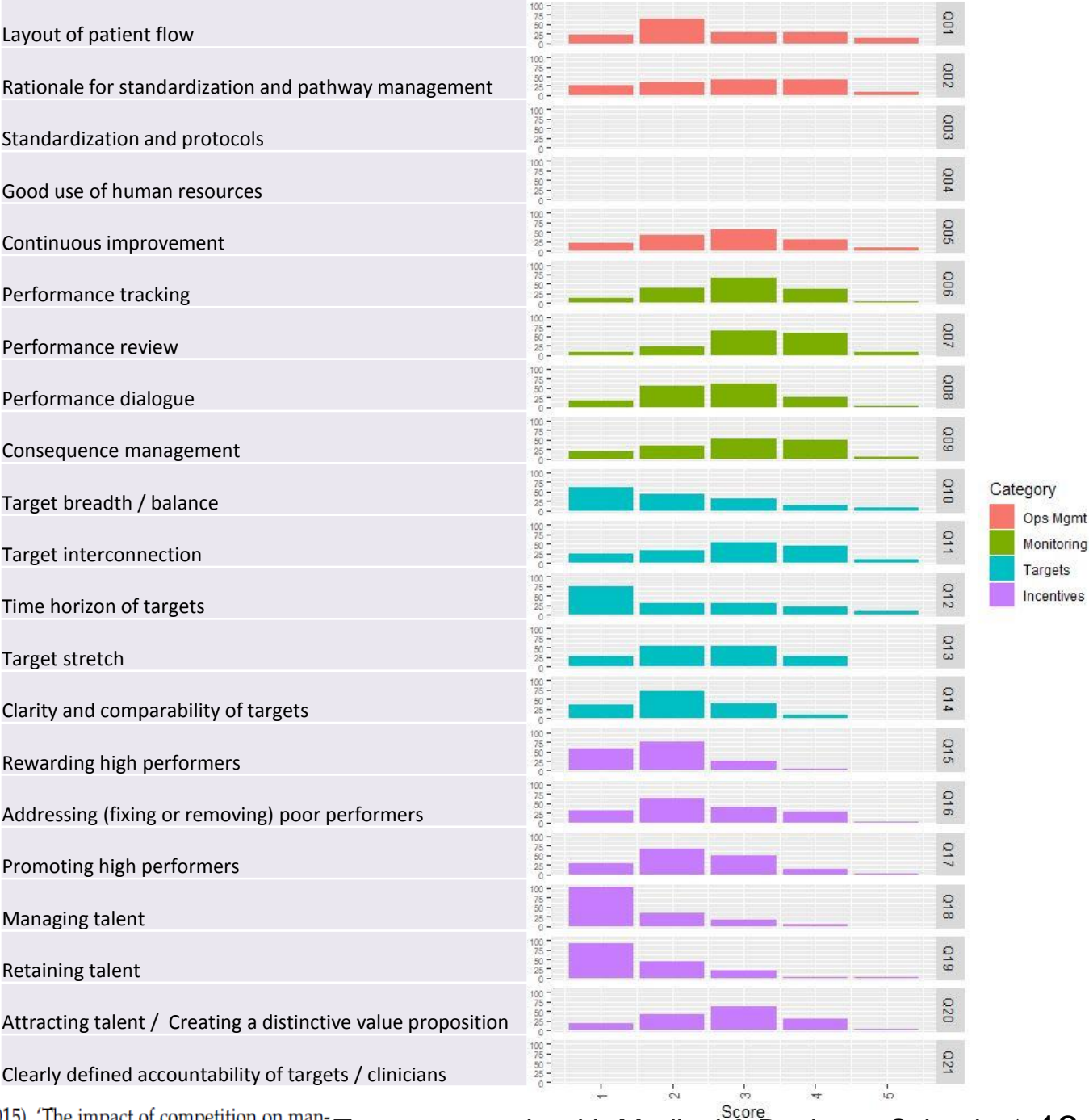
How do problems typically get exposed and fixed?

- 1 Process improvements are made only when problems occur or only involve one staff group.
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- 4 Between 3 and 5
- 5 Exposing problems in a structured way is integral to an individuals responsibilities and resolution involves all staff groups, along the entire patient pathway; exposing and resolving problems is a part of a regular business process rather than being the result of extraordinary efforts.

NHS data (2006, 2009,  
Cardiology & Orthopaedics)  
Total Management  
Practices Scores  
n=161 responses from 100  
acute trusts



(raw data available with: )



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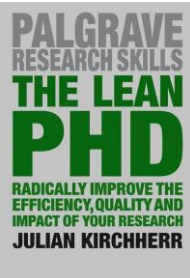
*A1 Professionalism and Professional Development in the Healthcare Environment*

*A2 Theoretical Foundations of Leadership*

*A3 Personal and Professional Development to Enhance Performance*

*A4 Leadership and Quality Improvement in the Clinical and Scientific Environment*

*A5 Research and Innovation in Health and Social Care*



[www.timeshighereducation.com/features/pragmatic-road-phd](http://www.timeshighereducation.com/features/pragmatic-road-phd)

AMBS: Health Management Group & Manchester Enterprise Centre

Developing, managing, leading...

Self – Teams – Systems

Theories, reflection, experiential activity

Assessment: synthesis, application, self-reflection, analysis, projects.... examples

More tomorrow...

You're stepping into our world (a big machine)

But - what you bring:

- Systems / systematic thinking, Analytical mindsets...
- Don't leave your scientific brains at the door!

[e.g. I do Management Science /Operational Research / *Management Engineering* / data analytics]

A digestible overview of *World Management Survey* research programme, if interested:

Sadun, R., Bloom, N. and Van Reenen, J. (2017), 'Why do we undervalue competent management?', *Harvard Business Review* 2017(Sept-Oct), 167–201.

URL: <https://hbr.org/2017/09/why-do-we-undervalue-competent-management>