C5:Public reporting as a quality strategy

Based on corresponding chapter by
M Cacace and M Geraedts
for upcoming Observatory Book

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Session outline

- What are the characteristics of the strategy?
- Use of public reporting in European countries?
- What do we know about the effectiveness and cost-effectiveness of the strategy?
- How can the strategy be implemented? What are the organizational and institutional requirements?
- Conclusions for policy-makers

Definition of Public Reporting

Quality-related information about non-anonymous providers disclosed to the general public by using a comparative approach

Public reporting is addressing the general public …

- to promote transparency and informed choice of provider
- to stimulate quality improvement
- to hold providers accountable for the care they deliver

…it is not…

- feedback (e.g. of health insurers) to providers
- open comments by healthcare users in the mass media, e.g. Yelp, Google
- data with paid access
- anonymous reporting, e.g. information bundled at the regional or national level

Pathways for Improvement Through Public Reporting

Selection pathway

Performance information enables the user

- Informed choice, i.e. selecting providers according to quality criteria
- Patient empowerment

=> Consumers 'vote with their feed', i.e. they select good performers and discard bad ones

'Exit' option, i.e. choice of provider required

Change pathway

Performance information enables the provider

- Comparison with peers
- Identification of the 'expected' level of quality and of areas of under-performance
- Avoidance of reputational damage
- Stimulus for quality improvement (ex-ante → before publication and ex-post →after publication)

'Voice' is complementary/alternative to 'exit'

Public Reporting in Europe

Public reporting in ambulatory care (2017)

Mostly prevention and chronic care

Mostly process indicators

Country	Total # QI (GP, Specialist)	Domains (Effect., Safety Resp.)	Care areas (Prev., Acute, Chronic, Pall.)	Donabedian (Struc. Proc., Outcome)
England (QOF)	77 GP	E, R	Prev, A, C, Pal	S, P, O
Estonia (QBS)	43 GP	E	Prev, C	P
Netherland (PQI)	384 Spec	E, R	A, C	S, P, O
Sweden (QFP)	141 GP	E	Prev, C	S, P, O
USA (QPP)	55 GP, 221 Spec	E, S, R	Prev, A, C, Pal,	S, P, O

Public reporting of hospital care: here patient experience

ELSEVIER

Health Policy

Volume 120, Issue 4, April 2016, Pages 377-383

Public reporting on quality, waiting times and patient experience in 11 high-income countries ☆

Bernd Rechel [a], Martin McKee [a], Marion Haas [b], Gregory P. Marchildon [c], Frederic Bousquet [d], Miriam Blümel [e], Alexander Geissler [e], Ewout van Ginneken [e], Toni Ashton [f], Ingrid Sperre Saunes [g], Anders Anell [h], Wilm Quentin [e], Richard Saltman [i], Steven Culler [j]

Table 3
Public reporting of information on patient experiences of hc

	Data on patient experience of hospital care available for each major hospital?	If such data are not available at hospital level, at which level are they available?		ta on patient erience of hospital care are not yet publicly available, are there plans to develop these?
Australia	No	Regional	Yes	n.a.
Canada	Yes	n.a.	www.yourhealthsystem.cihi.ca/hsp/	n.a.
England	Yes	n.a.	http://www.cqc.org.uk/content/inpatient-survey-2014	n.a.
France	Yes	n.a.	No	Yes
Germany	Yes	n.a.	https://www.weisse-liste.de/de/krankenhaus/krankenhaussuche/, https://weisse-liste.krankenhaus.aok.de/, https://www.krankenhausnavi.barmer-gek.de/	n.a.
Netherlands	Yes	n.a.	www.kiesbeter.nl	n.a.
New Zealand	No	Regional	http://www.hqsc.govt.nz/our-programmes/health-quality-evaluation/publicationsand-resources/publication/2347/	n.a.
Norway	Yes	n.a.	http://www.kunnskapssenteret.no/publikasjoner#index=0&types=175540	n.a.
Sweden	Yes	n.a.	www.npe.skl.se	n.a.
Switzerland	Yes	n.a.	http://www.anq.ch/akutsomatik/akutsomatik-anq-hplus/	n.a.
United States	Yes	n.a.	https://www.medicare.gov/hospitalcompare/	n.a.

Public reporting in Europe (and beyond): overview

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Conclusions:

- Public reporting of aggregate measures of quality and safety is uncommon
- Outcomes of individual physicians are rarely reported

Table 1
Overview of results on public reporting across the different dimensions covered.

	Australia	Canada	England	France	Germany	Netherlands	New Zealand	Norway	Sweden	Switzerland	United States
Rating for overall quality and safety											
Each major hospital	No	No	Yes	No	No	No	No	No	No	No	No
Each GP surgery	No	No	Yes	No	No	No	No	No	No	No	No
Each provider of residential (long-term) care	No	No	Yes	No	Yes	No	No	No	No	No	Yes
Each provider of domiciliary care	No	No	Yes	No	Yes	No	No	No	No	No	No
Rating of outcomes of individual professionals											
Hospital specialists	No	No	Yes	No	No	No	No	No	No	No	No
GPs	No	No	No	No	No	No	No	No	No	No	No
Waiting times for hospital treatment											
Each major hospital	Yes	Yes	Yes	No	No	Yes	No	Yes	Yes	No	Yes
Patient experience at the level of hospitals or GP practices											
Each major hospital	No	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes
Each GP surgery	No	No	Yes	No	No	Yes	No	No	Yes	No	No

Summary: Public reporting in Europe

- Public reporting is increasingly used in Europe
  - Covering inpatient, outpatient sectors, and other sectors (long-term care, domiciliary care)
  - Public (governmental) sponsorship very common
  - Data frequently complete and systematically collected (e.g., via surveys)
- PR strategies increasingly subject to government oversight:
  - Provider coverage as a major aim of regulation
  - Mandatory public reporting in specific sectors and/or on single indicators, e.g. in the Netherlands and Germany
  - PR linked to pay for performance, GPs/England
  - Voluntary reporting in Scandinavian countries, frequently initiated by government institutions

Public Reporting on Hospitals and Physician Practices

- **Hospitals**
  - Public mandate very common, data frequently complete
  - Initially, often partial assessment and reporting of quality (focus on structures, volumes, increasingly outcomes and patient experience)
- **Physician practices**
  - Focus on prevention and chronic care
  - Effectiveness indicators focus on processes (but several intermediate outcomes)
  - Patient satisfaction (responsiveness) important domain
  - Physician-rating websites rapidly expanding in number and scope

Example:

England

NHS choices

Results Indicator-specific hospital search “hip replacement”:

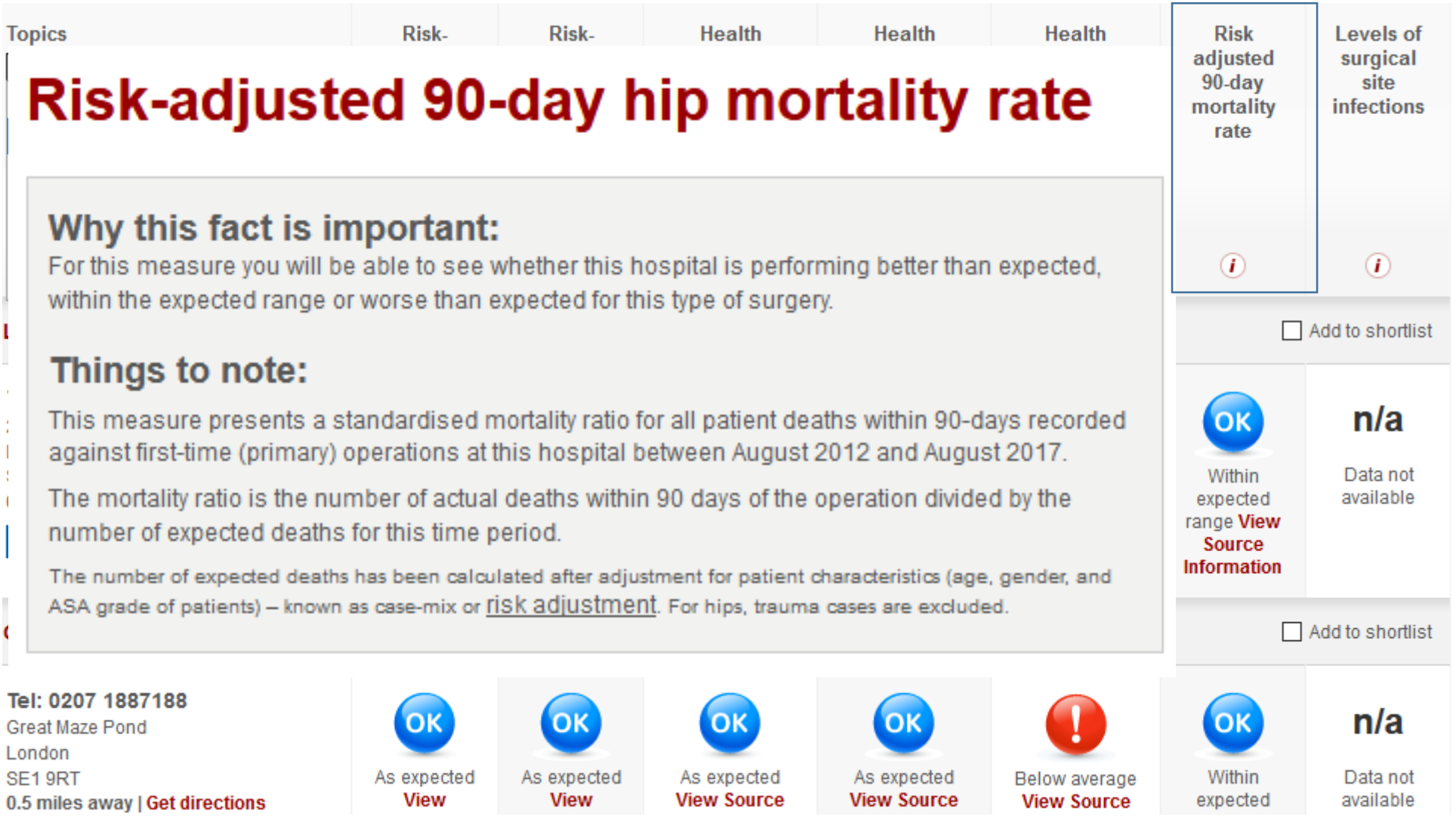
Topics Outcomes: hip Key Facts Outcomes: hip Patients treated Safety Complaints Facilities	Risk-adjusted hip revision rate - 14 year period (2003-2017)	Risk-adjusted hip revision rate - 5 year period (2012-2017)	Health improvements reported by patients after hip replacement (EQ5D)	Health improvements reported by patients after hip replacement (EQ-VAS)	Health Improvement following hip replacement: Condition specific quality of life questionnaire	Risk adjusted 90-day mortality rate	Levels of surgical site infections
London Bridge Hospital							Add to shortlist
Tel: 0207 407 3100 27 Tooley Street London SE1 2PR **0.3 miles away | Get directions**	OK As expected View Source Information	OK As expected View Source Information	n/a Data not available	n/a Data not available	n/a Data not available	OK Within expected range View Source Information	n/a Data not available
Guy's Hospital							Add to shortlist
Tel: 0207 1887188 Great Maze Pond London SE1 9RT **0.5 miles away | Get directions**	OK As expected View	OK As expected View	OK As expected View Source	OK As expected View Source	! Below average View Source	OK Within expected	n/a Data not available

Example:

England

NHS choices

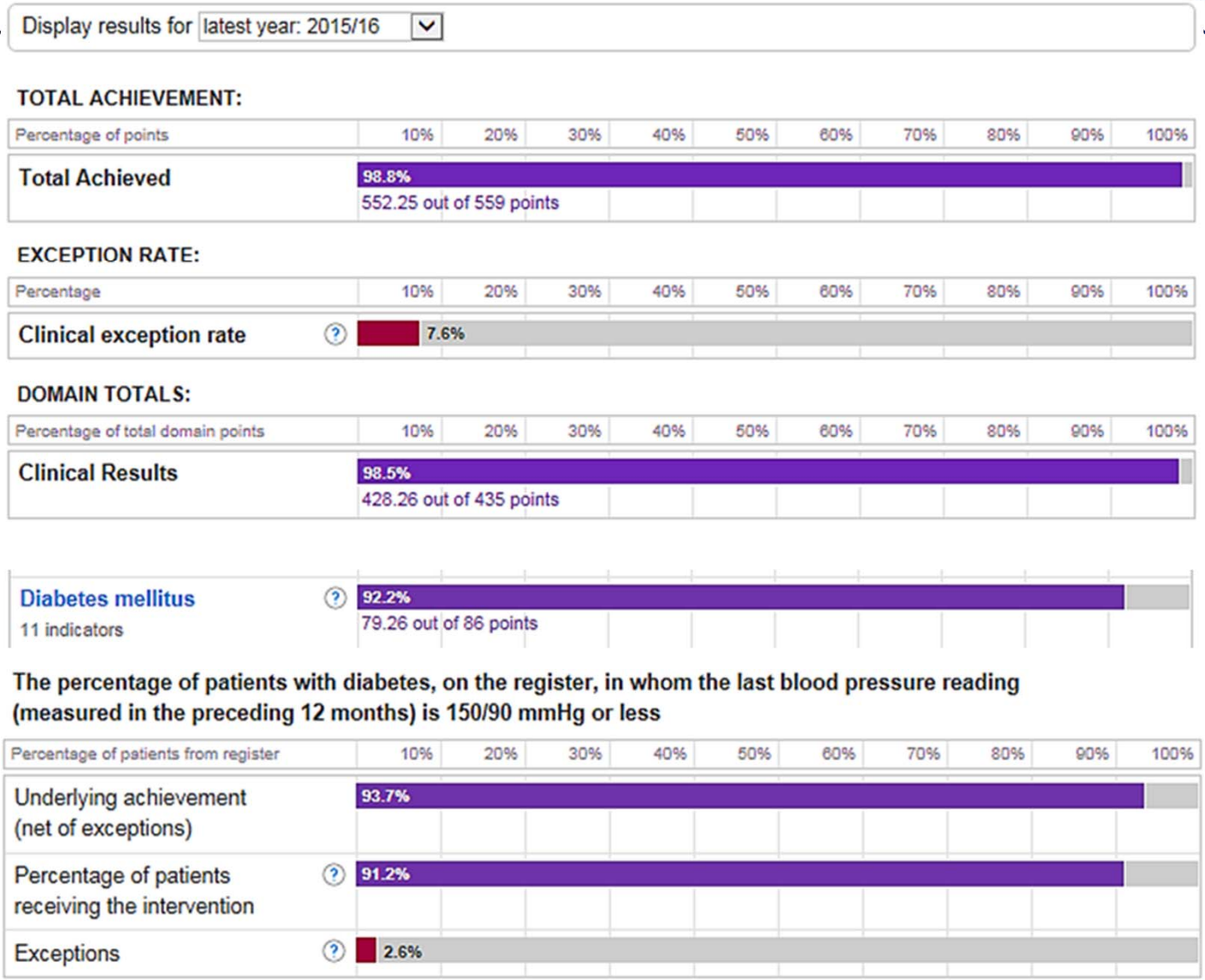
Results Indicator-specific hospital search “hip replacement”:



Example: NHS-Choices/QOF

Overview

Individual indicators



Example:

The Netherlands

kiesBeter.nl
wijst u de weg in de zorg

Kies een zorgsector: Ziekenhuizen en klinieken

Help mij een zorgsector kiezen

Zoek zorg in de buurt van: amsterdam

Afstand: 25 Km

Kies onderwerp (niet verplicht): Diabetes

Kies kwaliteitseis (niet verplicht): Diabetes - Percentage adolescenten met diabetes > 18 jaar onder behandeling op de ziek

Slotervaartziekenhuis B.V.

11.7 km

Bezoekadres:
Louwesweg 6,
1066 EC Amsterdam

Diabetes - Percentage adolescenten met diabetes > 18 jaar onder behandeling op de ziekenhuislocatie met een laatst gemeten HbA1c <58 mmol/mol

28.6%

+ toevoegen aan vergelijking

Percentage of adolescents with diabetes > 18y under treatment at the hospital location with a last measured HbA1c<58 mmol / mol

Stichting Zaans Medisch Centrum

Bezoekadres:
Koningin Julianaplein 58,
1502 DV Zaandam

Diabetes - Percentage adolescenten met diabetes > 18 jaar onder behandeling op de ziekenhuislocatie met een laatst gemeten HbA1c <58 mmol/mol

100.0%

+ toevoegen aan vergelijking

Effectiveness of Public Reporting

Effectiveness of public reporting

The impact of Public Reporting on clinical outcomes: a systematic review and meta-analysis

Paolo Campanella, Vladimir Vukovic, Paolo Parente, Adela Sulejmani, Walter Ricciardi and Maria Lucia Specchia

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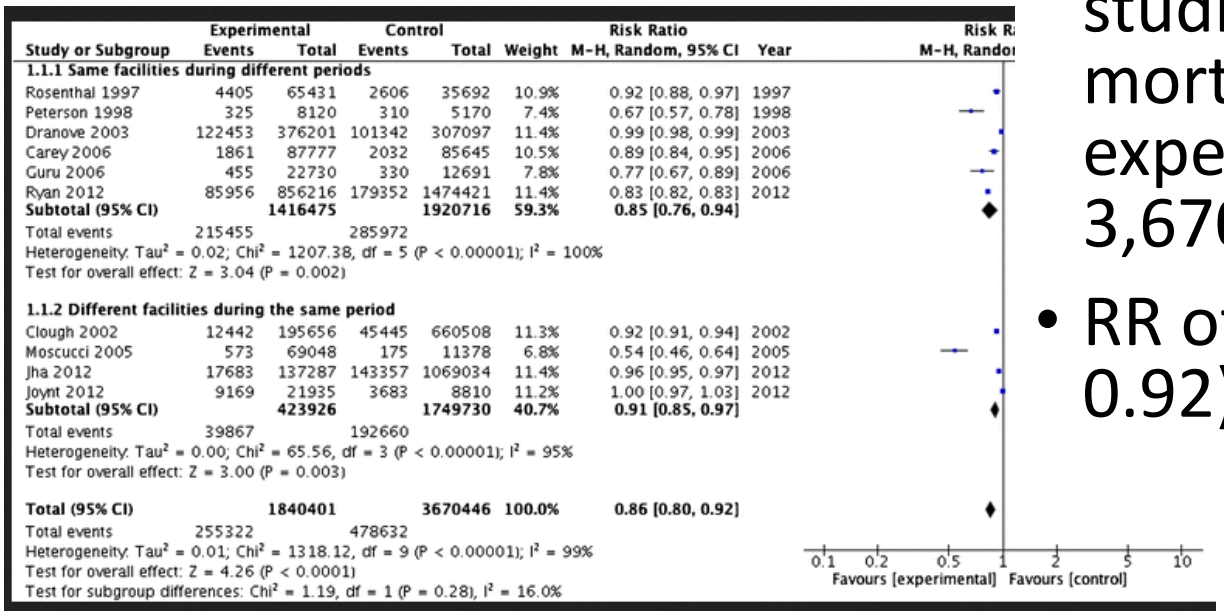


Study or Subgroup	Experimental Events	Experimental Total	Control Events	Control Total	Weight	Risk Ratio M-H, Random, 95% CI	Year
1.1.1 Same facilities during different periods							
Rosenthal 1997	4405	65431	2606	35692	10.9%	0.92 [0.88, 0.97]	1997
Peterson 1998	325	8120	310	5170	7.4%	0.67 [0.57, 0.78]	1998
Dranove 2003	122453	376201	101342	307097	11.4%	0.99 [0.98, 0.99]	2003
Carey 2006	1861	87777	2032	85645	10.5%	0.89 [0.84, 0.95]	2006
Guru 2006	455	22730	330	12691	7.8%	0.77 [0.67, 0.89]	2006
Ryan 2012	85956	856216	179352	1474421	11.4%	0.83 [0.82, 0.83]	2012
Subtotal (95% CI)		**1416475**		**1920716**	**59.3%**	**0.85 [0.76, 0.94]**	
Total events	215455		285972				
Heterogeneity: Tau² = 0.02; Chi² = 1207.38, df = 5 (P < 0.00001); I² = 100%							
Test for overall effect: Z = 3.04 (P = 0.002)							
1.1.2 Different facilities during the same period							
Clough 2002	12442	195656	45445	660508	11.3%	0.92 [0.91, 0.94]	2002
Moscucci 2005	573	69048	175	11378	6.8%	0.54 [0.46, 0.64]	2005
Jha 2012	17683	137287	143357	1069034	11.4%	0.96 [0.95, 0.97]	2012
Joynt 2012	9169	21935	3683	8810	11.2%	1.00 [0.97, 1.03]	2012
Subtotal (95% CI)		**423926**		**1749730**	**40.7%**	**0.91 [0.85, 0.97]**	
Total events	39867		192660				
Heterogeneity: Tau² = 0.00; Chi² = 65.56, df = 3 (P < 0.00001); I² = 95%							
Test for overall effect: Z = 3.00 (P = 0.003)							
Total (95% CI)		**1840401**		**3670446**	**100.0%**	**0.86 [0.80, 0.92]**	
Total events	255322		478632				
Heterogeneity: Tau² = 0.01; Chi² = 1318.12, df = 9 (P < 0.00001); I² = 99%							
Test for overall effect: Z = 4.26 (P < 0.0001)							
Test for subgroup differences: Chi² = 1.19, df = 1 (P = 0.28), I² = 16.0%							

Risk Ratio M-H, Random

0.1 0.2 0.5 1 2 5 10

Favours [experimental] Favours [control]

- Twenty-seven studies included.
- Mainly positive effects of PR on clinical outcomes.
- Meta-analysis of 10 studies regarding overall mortality (1,840,401 experimental events and 3,670,446 control events)
- RR of 0.85 (95 % CI, 0.79-0.92)

Effectiveness of Public Reporting

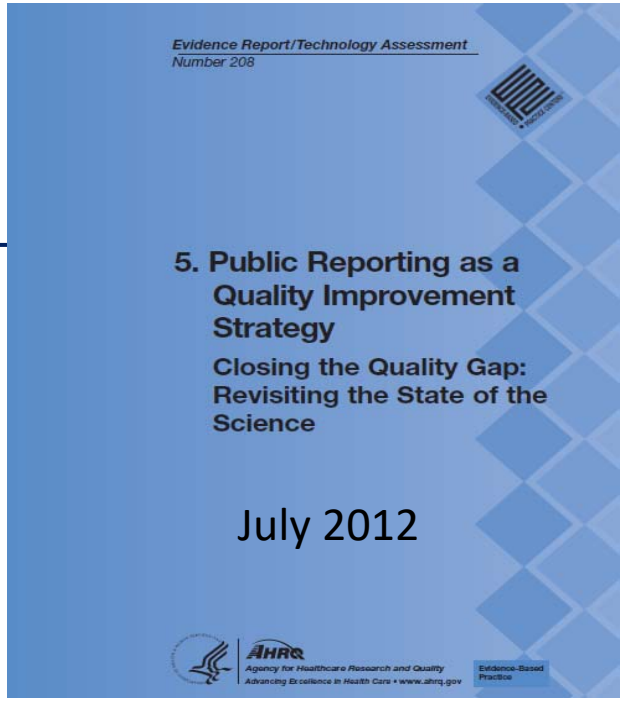


Table A. Summary evidence table: effectiveness of public reporting of health care quality as a quality improvement strategy

Key Question	Outcome: Conclusion	Total Studies,[a] Settings (Number of Studies)	Strength of Evidence
Key Question 1 Does public reporting result in improvements in the quality of health care (including improvements in health care delivery structures, processes, or patient outcomes)?	**Reduction in mortality:** Public reporting was associated with a small decline in mortality after controlling for trends in reductions in mortality.	19 Hospitals (18) Individual clinicians (1)	Moderate
	Quality and process indicators (e.g., CAHPS, HEDIS, Nursing Home Compare): Most studies found that public reporting is associated with improvement in quality and process indicators, although this varies across specific measures.	19 Hospitals (5) Health plans (5) Long-term care (9)	High

Safety of Public Reporting

Key Question 2 What harms result from public reporting?	**Access restrictions:** Most studies concluded that public reporting does not contribute to reduced access for patients (e.g., avoiding high-risk patients, referring high-risk patients out of State). Fewer studies have identified instances of reduced access, suggesting this conclusion could be changed based on future research.	13 Hospitals (8) Individual clinicians (2) Long-term care (3)	Low
	Unintended provider behavior: There was some evidence from LTC that public reporting motivates NHs to change coding and readmit patients to the hospital. No evidence supported a link with surgeons or organizations withdrawing from the market or with declines in quality for items not measured (crowding out).	5 Individual clinicians (1) Health plans (2) Long-term care (2)	Moderate
Key Question 3 Does public reporting lead to change in health care delivery structures or processes?	**Provider actions:** The evidence suggested that individual clinicians and organizations respond to public reporting in positive ways, including adding services, changing policy, and increasing focus on clinical care. One study found that low-quality surgeons leave practice (considered a positive action). A study of vaccination rates was the only one that found no effect.	10 Hospitals (4) Individual clinicians (1) Long-term care (5)	Moderate
Key Question 4 Does public reporting lead to change in the behavior of patients, their representatives, or organizations that purchase care?	**Selection (market share/volume):** Studies found no or minimal impact of public reporting on selection as measured by market share or volume. Contracting patterns suggested purchasers give only minimal consideration to publicly reported quality when selecting providers.	47 Hospitals (15) Individual clinicians (9) Health plans (17) Long-term care (6)	Moderate

Characteristics that influence Effectiveness of Public Reporting

Key Question 6 What contextual factors (population characteristics, decision type, and environmental) increase the impact of public reporting on quality of care?	**Competitive market:** Studies have found that public reporting is more likely to result in improvements in quality if the clinician or provider is in a competitive market.	7 Hospitals (2) Long-term care (5)	High
	Baseline performance: The likelihood of improvement after public reporting was greater for entities with lower quality before or at the first instance of reporting.	5 Health plans (2) Long-term care (3)	High
	Nursing home characteristics: Characteristics (e.g., ownership) did not reliably predict how NHs reacted to public reporting. Studies found no consistent difference across characteristics.	6 Long-term care (6)	Low
	Patient characteristics/subgroups: Different patient characteristics, such as age, specific health care needs, and insurance coverage, may have increased the likelihood that publicly reported data affected choice.	3 Health plans (1) Individual clinicians (2)	Low
	Variation in quality: Public reporting was more likely to influence quality if the level of quality varied across plans in the market.	1 Health plans	Insufficient

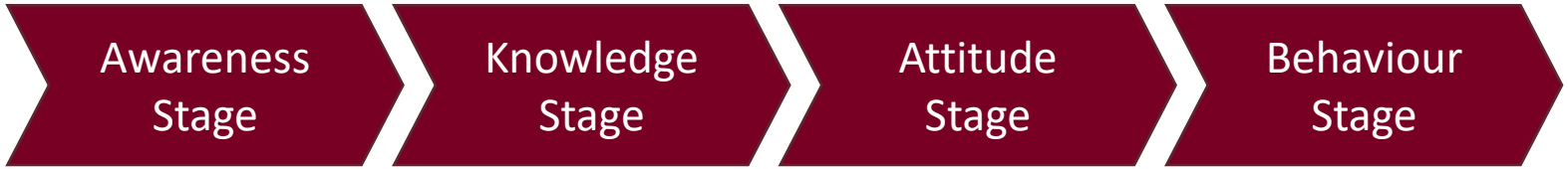
[a]Conclusions and strength of evidence are based on the 97 included quantitative studies. Studies that examined more than one outcome are included separately for each outcome.

Effectiveness of Public Reporting

- Evidence points towards improvements in health outcomes e.g., Kraska/Krummenauer/Geraedts (2016), Behrendt/Groene (2016), Campanella et al. (2016)
- Effect difficult to isolate as it coincides with other quality measures, e.g. improved documentation, pay for performance
- Low but increasing utilization of PR by the public
- Selection pathway has not been working particularly well

Effectiveness of Public Reporting

Consumer choice model:

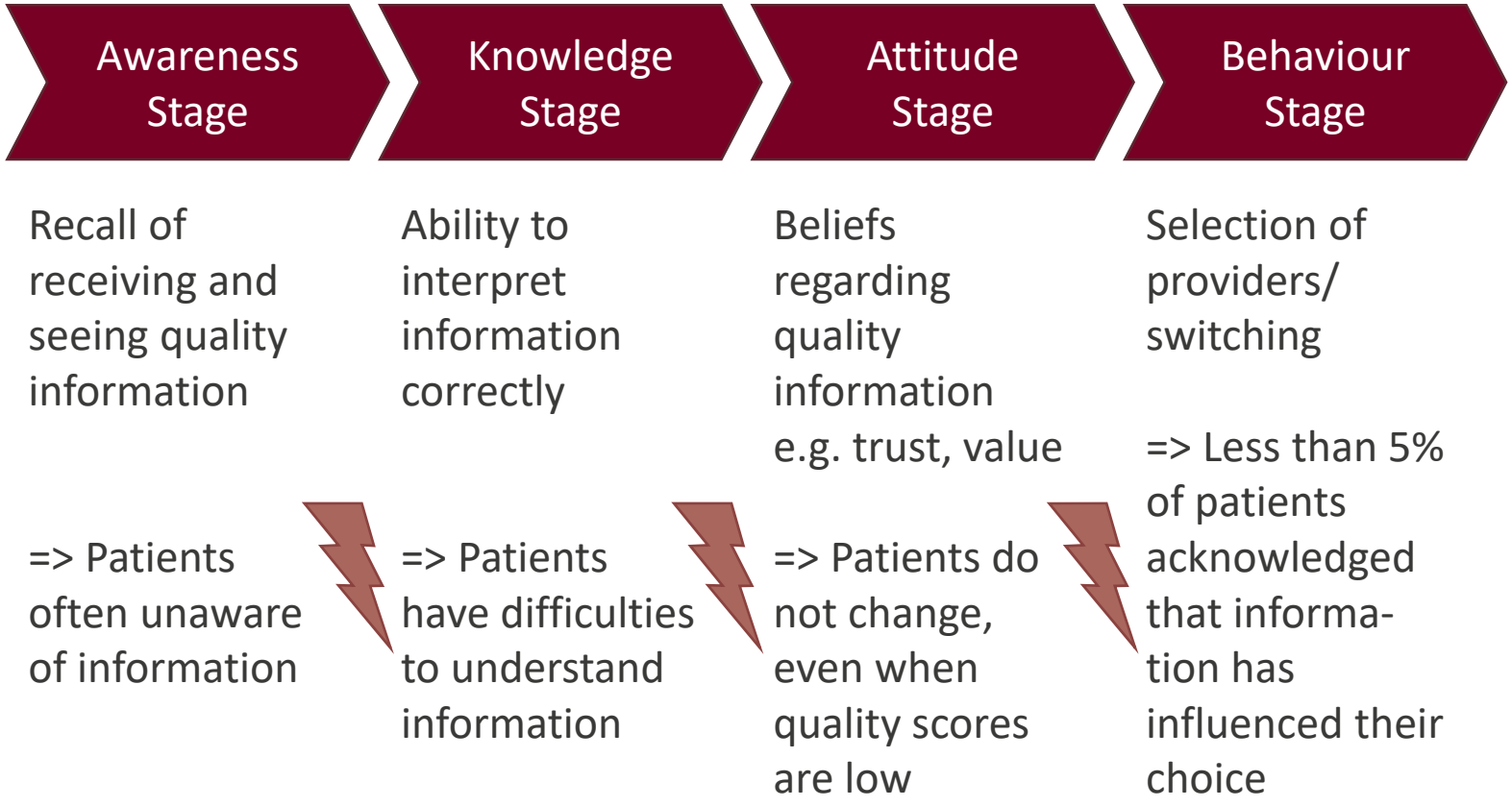


Awareness Stage	Knowledge Stage	Attitude Stage	Behaviour Stage
Recall of receiving and seeing quality information	Ability to interpret information correctly	Beliefs regarding quality information e.g. trust, value	Selection of providers/ switching

Faber et al. 2009

Effectiveness of Public Reporting

Consumer choice model:



Effectiveness of Public Reporting

- Providers have been most responsive to the publication of data
- Second pathway, threat of reputational damage, seems to be the most important driver for change
- Unintended consequences do not seem to be important – but should be monitored/further studied
  - incentive for risk-selection due to imperfect risk-adjustment
  - gaming, i.e. poor performance in areas where quality of care is not measured

Considerations for implementation

Good Practice in Implementation of Public Reporting

Accessibility

- Information available on the Internet
  => Opportunities through interactive features
- People with lower levels of education and elderly less likely to search for quality information
  => access barriers to highest health needs

Indicators

- Quality of data: e.g. valid, reliable, sensitive to change, consistent
- Comprehensive, e.g. mix of clinical indicators and patients' view
- Indicator needs to be fully under provider control
- risk adjustment is essential

Consumer needs

- Bounded rationality vs. consumers' desire for more information (maximum ≠ optimal)
  => aggregates at different levels
- Tailoring to individual needs (search sequences, weighting options)
- Role for intermediaries: patient associations and self-help groups

Good Practice in Implementation of Public Reporting

- Involve stakeholders: patients/ patient organisations and staff at all levels of organisation.
- Ensure that both clinical outcomes and patient satisfaction is measured.
- Search for options to aggregate to keep the number of indicators small (composite indices).
- Make use of independent benchmarks and averages.
- Take a longer term perspective and keep the system under constant review.
- Educate the users! Highlight the importance of continuous learning over one-off judgements about performance.
- Trust the users! Users have different preferences and they are able to weight trade-offs.
- Improve accessibility of information.

Conclusions for policy-makers

- There is an increasing use of Public Reporting in many European countries
- Evidence suggests that public reporting has positive effects on processes of care and on patient outcomes
- Public Reporting is more effective if provider is in a competitive market – but effect on patient choice seems to be limited
- Information has to be easily accessible, indicators should be valid and reliable (risk-adjusted), and tailored to users needs.