

Clinical & Service Quality

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Outline

What is Quality of Care?

High Cost = Good Quality?

Cost of Poor Quality

Cost of Rewarding Quality

Cost of Improving Quality

Cost Saved by Quality Improvement

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Quality of Health Care

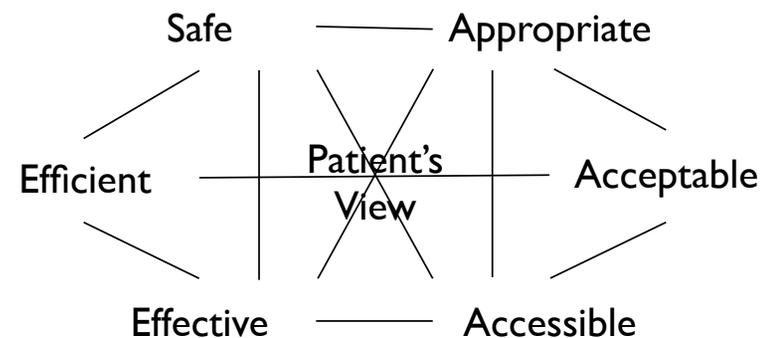
The degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge (IOM, 1990)

Clinical vs Service Quality

“Doing” vs “Showing” Quality

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Domains of Quality



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The Costs and Quality of Care for Three Common Illnesses at Retail Clinics as Compared to Other Medical Settings

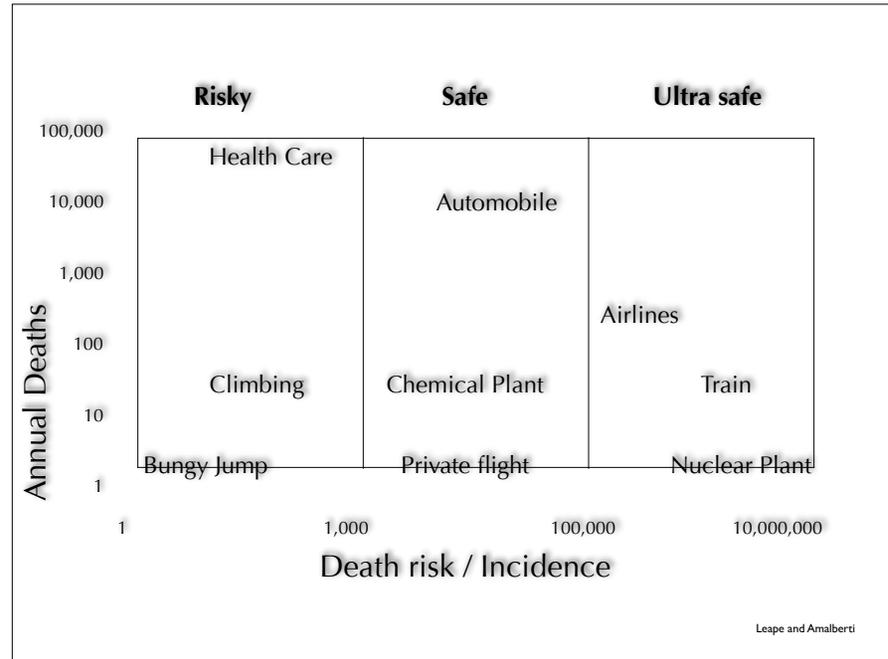
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Abstract

Background—Retail clinics are an increasingly popular source for medical care. Concerns have been raised about the impact of these clinics on costs, quality, and delivery of preventive care.
Objective—To address these concerns, we compared the care for three acute conditions at retail clinics and other care settings.
Setting—Enrollees of a large Minnesota health plan
Patients—Enrollees who received care for otitis media, pharyngitis, or urinary tract infection (UTI)
Design—We aggregated 2005–2006 claims data from a large health plan into care episodes (units that included initial and follow-up visits, pharmaceuticals, and ancillary tests). After identifying 2100 episodes (700 each) in which otitis media, pharyngitis, and UTI were treated first in retail clinics, we matched them with episodes in which these illnesses were treated first in physician offices, urgent care clinics and emergency departments.
Measurements—Costs per episode, performance on 14 quality indicators, receipt of 7 preventive care services at the initial appointment or subsequent 3 months.

Mehrotra A, et al. Ann Intern Med 2009;151(5):321-8.

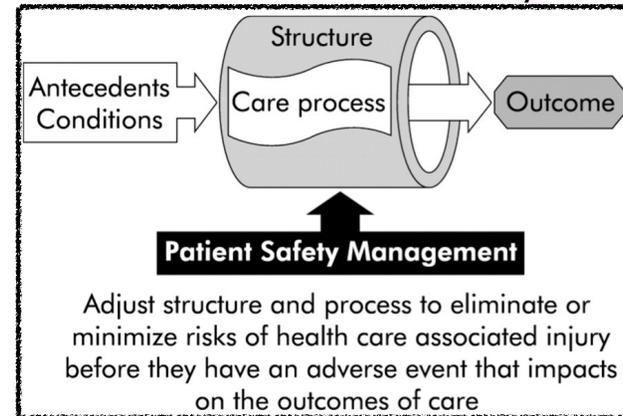


Medication Errors

In the past 2 years:	AUS	CAN	NZ	UK	US
Given the wrong medication or wrong dose by a doctor, hospital or pharmacist	11	11	13	10	12
Believed a medical mistake was made in your treatment or care	19	20	18	13	23
Medication error or believed an error was made	23	25	23	18	28

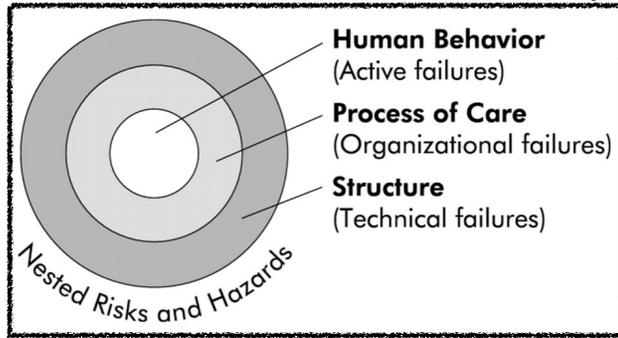
2002 Commonwealth Fund International Health Policy Survey

Donabedian Model of Patient Safety



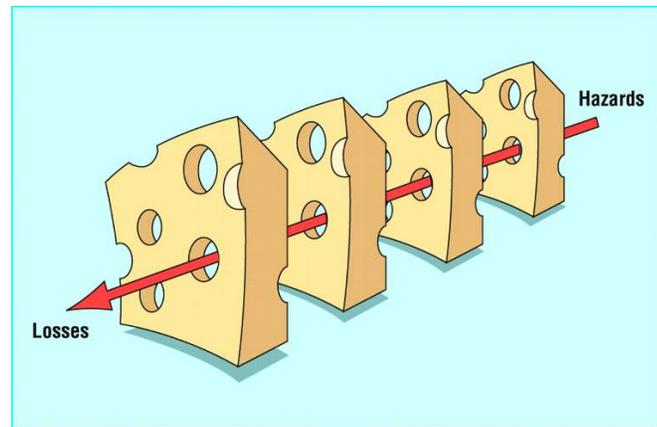
Donabedian A. Explorations in quality assessment and monitoring: the definition of quality and approaches to its assessment. Ann Arbor, MI: Health Administration Press; 1980.
 Battles JB, Lilford R. Quality and Safety in Health Care 2003;12:ii2-ii7

Nested Risks and Hazards in Patient Safety



Battles JB, Lifford R. Quality and Safety in Health Care 2003;12:i12-i17

Swiss Cheese Model



Reason J. Human error: models and management. BMJ 2000;320:768-770.

Wait Times for Elective Surgery and Specialist Appointments

	AUS	CAN	FR	GER	NETH	NZ	NOR	SWE	SWIZ	UK	US
Specialist Appointment											
Less than 4 weeks	54	41	53	83	70	61	50	45	82	72	80
2 months or more	28	41	28	7	16	22	34	31	5	19	9
Elective Surgery											
Less than 1 month	53	35	46	78	59	54	44	34	55	59	68
4 months or more	18	25	7	0	5	8	21	22	7	21	7

Telephone survey, conducted from March to June 2010, of adults ages 18 and older in Australia, Canada, France, Germany, the Netherlands, New Zealand, Norway, Sweden, Switzerland, the United Kingdom, and the United States.

Final samples: 3,552 Australia, 3,302 Canada, 1,402 France, 1,005 Germany, 1,001 Netherlands, 1,000 New Zealand, 1,058 Norway, 2,100 Sweden, 1,306 Switzerland, 1,511 United Kingdom, and 2,501 United States.

2010 Commonwealth Fund International Health Policy Survey in Eleven Countries

Coordination Problems

In the past 2 years:	AUS	CAN	FR	GER	NETH	NZ	NOR	SWE	SWIZ	UK	US
Test results not available at time of appointment	11	11	7	8	8	9	10	9	7	9	15
Received conflicting information from different health professionals	20	20	16	17	15	18	24	18	16	10	23
Duplicate tests: doctors ordered test that had already been done	10	8	14	20	4	5	9	5	11	7	17
Yes to at least one of the above	28	28	28	29	21	23	31	23	24	19	37

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2010 Commonwealth Fund International Health Policy Survey in Eleven Countries

Adherence to Quality Indicators

Table 3. Adherence to Quality Indicators, Overall and According to Type of Care and Function.

Variable	No. of Indicators	No. of Participants Eligible
Overall care	439	6712
Type of care		
Preventive	38	6711
Acute	153	2318
Chronic	248	3387
Function		
Screening	41	6711
Diagnosis	178	6217
Treatment	173	6707
Follow-up	47	2413

Table 4. Adherence to Quality Indicators, According to Mode.

Mode	No. of Indicators	No. of Participants Eligible	Total No. of Times Indicator Eligibility Was Met	Percentage of Recommended Care Received (95% CI)*
Encounter or other intervention	30	2843	4,329	73.4 (71.5–75.3)
Medication	95	2964	8,389	68.6 (67.0–70.3)
Immunization	8	6700	9,748	65.7 (64.3–67.0)
Physical examination	67	6217	19,428	62.9 (61.8–64.0)
Laboratory testing or radiography	131	5352	18,605	61.7 (60.4–63.0)
Surgery	21	244	312	56.9 (51.3–62.5)
History	64	6711	36,032	43.4 (42.4–44.3)
Counseling or education	23	2838	3,806	18.3 (16.7–20.0)

McGlynn EA, et al. NEJM 2003;348:2635-45.

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Desirable Attributes

Importance

Scientific Soundness

Usefulness of the results to QI

Feasibility

Schneider EC, 2006

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Data Sources

Administrative data

Claims data

Medical record review

Survey: patients, providers

Schneider EC, 2006

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Comparing across Health Care Plan

Table 4. Rates of Colorectal Cancer Screening by Administrative Data, Survey, and Hybrid Methods

Method	Health Care Plan				
	A	B	C	D ^a	E
Administrative data method ($P < .001$)					
Rate, % (95% CI)	41.5 (41.1-41.9)	38.6 (38.2-38.9)	47.1 (46.5-47.6)	27.3 (25.8-28.7)	44.4 (43.8-45.1)
Plan relative rank	3	4	1	5	2
Survey data method ^b ($P = .16$)					
Rate, % (95% CI)	53.2 (42.1-64.4)	69.7 (60.3-79.2)	55.0 (41.1-68.8)	62.1 (53.8-70.4)	66.2 (57.1-75.2)
Plan relative rank	5	1	4	3	2
Hybrid data method ^c ($P < .001$)					
Rate, % (95% CI)	41.5 (41.1-41.9)	53.5 (48.5-58.5)	52.6 (48.3-56.8)	38.8 (34.3-43.4)	45.6 (44.0-47.2)
Plan relative rank	4	1	2	5	3

Schneider EC, et al. Assessment of the Scientific Soundness of Clinical Performance Measures. Arch Intern Med 2008;168(8):876-882.

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Selecting Measures

- IF health plan has >10,000 enrollees
THEN it should have at least 5 GI specialists
- IF a patient is eligible for colorectal cancer screening
THEN the patient should receive screening
- IF a patient visits a doctor
THEN he/she should report a satisfaction rating of 9 or 10 on a 10-point scale
- IF a patient undergoes surgery for colorectal cancer
THEN the patient should be alive 30 days after surgery

Schneider EC, 2006

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Financial Incentive Programs

- FFS rate increase for desired services
- Withholds (and returns)
- Bonuses
- Capitation with bonuses/penalties
- Competitive grants for QI initiatives
- Shared savings arrangements

Schneider EC, 2006

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Characteristics of Incentives

Financial Aspects

- Recipient of the incentive
- Revenue potential
- Impact on cost

Dudley RA, et al. Strategies To Support Quality-based Purchasing. Rockville, MD: AHRQ, 2004.

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Characteristics of Incentives

Nonfinancial Aspects

- Perceived attainability
- Domain of performance measured: SPO
- Acceptability of the incentive or performance goal

Dudley RA, et al. Strategies To Support Quality-based Purchasing. Rockville, MD: AHRQ, 2004.

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Characteristics of Incentives

Predisposing Factors

- General financial characteristics of environment: FFS, Salary, Capitation
- Provider characteristics
- Market characteristics
- Other predisposing factors

Dudley RA, et al. Strategies To Support Quality-based Purchasing. Rockville, MD:AHRQ, 2004.

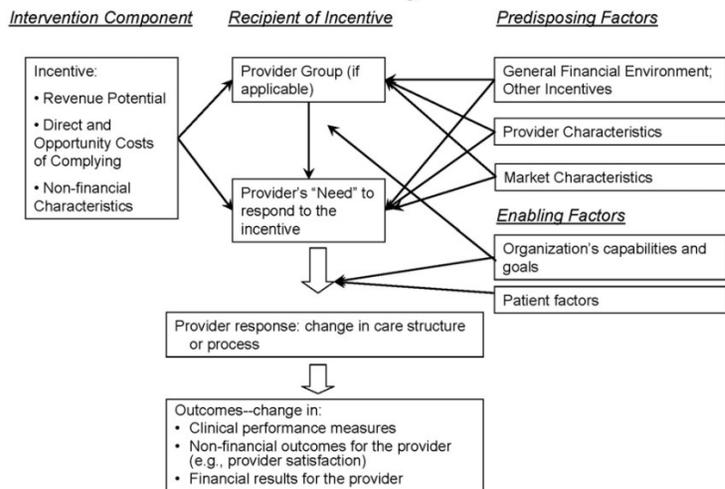
Characteristics of Incentives

Enabling Factors

- Organizational characteristics
- Patient characteristics
- Other factors

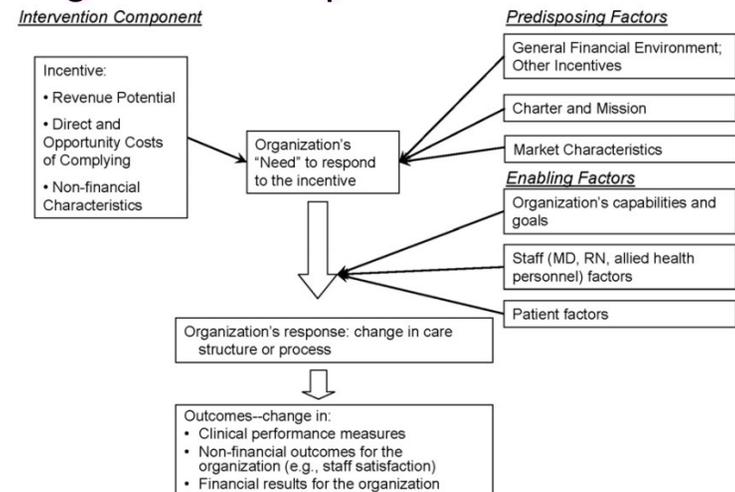
Dudley RA, et al. Strategies To Support Quality-based Purchasing. Rockville, MD:AHRQ, 2004.

Individual Provider's Response to Incentives



Dudley RA, et al. Strategies To Support Quality-based Purchasing. Rockville, MD:AHRQ, 2004.

Organization's Response to Incentives



Dudley RA, et al. Strategies To Support Quality-based Purchasing. Rockville, MD:AHRQ, 2004.

P4P Experiences in USA

Over 150 programs are documented

Physicians are about twice as likely as hospitals to be focus of P4P

On average, programs use 5 performance measures

Maximum eligible bonuses for:

Physicians 5-10% of pay

Hospitals 1-2% of pay

Reward for reaching a fixed threshold dominate

Only 23% reward improvement

McNamara P, 2009

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Early Experience With Pay-for-Performance From Concept to Practice

Meredith B. Rosenthal, PhD

Richard G. Frank, PhD

Zhonghe Li, MA

Arnold M. Epstein, MD, MA

THE NUMBER OF HEALTH PLANS and purchasers in the United States that have adopted pay-for-performance mechanisms for quality improvement is growing rapidly.¹⁻³ However, most of these programs are in the early stages of trial, evaluation, and adjustment. Although there is intense interest in and optimism about pay-for-performance programs among many policy makers and payers, there is little published research on pay-for-performance in health care.⁴⁻⁶ In fact, there are only a few studies demonstrating that pay-for-performance leads to improved quality of care.⁷⁻¹⁰

One area that is particularly contro-

Context The adoption of pay-for-performance mechanisms for quality improvement is growing rapidly. Although there is intense interest in and optimism about pay-for-performance programs, there is little published research on pay-for-performance in health care.

Objective To evaluate the impact of a prototypical physician pay-for-performance program on quality of care.

Design, Setting, and Participants We evaluated a natural experiment with pay-for-performance using administrative reports of physician group quality from a large health plan for an intervention group (California physician groups) and a contemporaneous comparison group (Pacific Northwest physician groups). Quality improvement reports were included from October 2001 through April 2004 issued to approximately 300 large physician organizations.

Main Outcome Measures Three process measures of clinical quality: cervical cancer screening, mammography, and hemoglobin A_{1c} testing.

Results Improvements in clinical quality scores were as follows: for cervical cancer screening, 5.3% for California vs 1.7% for Pacific Northwest; for mammography, 1.9% vs 0.2%; and for hemoglobin A_{1c}, 2.1% vs 2.1%. Compared with physician groups in the Pacific Northwest, the California network demonstrated greater quality improvement after the pay-for-performance intervention only in cervical cancer screening (a 3.6% difference in improvement [$P = .02$]). In total, the plan awarded \$3.4 million (27% of the amount set aside) in bonus payments between July 2003 and April 2004, the first year of the program. For all 3 measures, physician groups with baseline performance at or above the performance threshold for receipt of a bonus improved the least but garnered the largest share of the bonus payments.

Rosenthal MB, et al. Early Experience with Pay-for-Performance. JAMA 2005;294:1788-1793.

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“Paying clinicians to reach a common, fixed performance target may produce little gain in quality for the money spent and will largely reward those with higher performance at baseline.”

Rosenthal, et al. (2005)

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Patient and hospital characteristics associated with traditional measures of inpatient quality of care for patients with heart failure

Paul A. Heidenreich, MD,^a Xin Zhao, MS,^b Adrian F. Hernandez, MD,^b Clyde W. Yancy, MD,^c and Gregg C. Fonarow, MD^d Palo Alto, and Los Angeles, CA; Durham, NC; and Dallas, TX

Background The purpose of this study was to determine patient and hospital characteristics associated with 4 measures of quality of inpatient heart failure care used by both the primary payer of heart failure care in the United States (Center for Medicare and Medicaid Services) and the main hospital accrediting organization (The Joint Commission).

Methods We used data from Get With The Guidelines Program for patients hospitalized with heart failure. Eligibility for receiving care based on the Center for Medicare and Medicaid Services performance measures was determined for assessment of left ventricular ejection fraction (LVEF; $n = 60,601$), use of angiotensin-converting enzyme inhibitors (ACEi) or angiotensin receptor blockers (ARB) if LVEF < 40% and no contraindications [24,130], discharge instructions [49,383], and smoking cessation counseling [10,152]. Patient and hospital characteristics that were significantly associated with performance measures in univariate analyses were entered into multivariate logistic regression models.

Results Overall, documentation for LVEF assessment was noted in 95%, ACEi/ARB use in 87%, discharge instruction in 82%, and smoking cessation counseling in 91% of eligible patients. In adjusted analyses, older patients and those with evidence of renal failure were significantly less likely to receive each care measure except for discharge instructions (no age effect). Patients with higher body mass index were more likely to receive ACEi/ARB and discharge instructions but less likely to have LVEF documented or to receive smoking cessation counseling. Small hospitals (<200 beds) were less likely to provide each of the performance measures compared with larger hospitals.

Conclusion Recommended heart failure care is less likely in patients with certain characteristics (older age and abnormal renal function) and those cared for in smaller hospitals. Programs to improve evidence-based care for heart failure should consider interventions specifically targeting and tailored to smaller facilities and patients who are older with comorbidities. (Am Heart J 2012;163:239-245.e3.)

Heidenreich PA, et al. Am Heart J 2012;163:239-245.

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Cost of Implementing Quality Management System

Basic Costs (Direct / Indirect)

Labor, Material, Opportunity, etc.

Administration: Documentation, Meetings

External Costs (Externality)

Implementation Difficulties

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Comparison of health care professionals' and surveyors' opinions on problems and obstacles in implementing quality management system in Thailand: a national survey

Results. The response rates were 94.9 and 73.2% in health care professionals and surveyors, respectively. More than 90% of both groups thought that there had been problems in the items such as 'quality improvement (QI) activities' and 'integration and utilization of information'. The items considered by health care professionals as major obstacles included 'adequacy of staff' (34.6%) and 'integration and utilization of information' (26.6%), for example. For surveyors, 'integration and utilization of information' was ranked highest as presenting a major obstacle (43.9%), followed by 'discharge and referral process' (31.7%) and 'medical recording process' (29.3%). The rank orders for the 24 items as problems and major obstacles were similar in both groups (Spearman's rank correlation 0.436, $P = 0.033$ and 0.583, $P = 0.003$, respectively). Surveyors had a higher degree of concern and paid more attention to care-related items than health care professionals.

Conclusions. Health care professionals have been facing many problems with multidisciplinary process-related issues of the accreditation standard, whereas surveyors might have had some difficulties in conveying the core QI concepts to them. The findings might be explained by the effects of health care reform on the underlying accreditation principles. One of the strategies to respond to the situation was presented.

ing Thailand HA standards.

Pongpirul K, et al. Comparison of health care professionals' and surveyors' opinions on problems and obstacles in implementing quality management system in Thailand: a national survey. Int J Qual Health Care 2006;18(5):346-351.

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Items in each category	Health care professionals (n = 728)				Surveyors (n = 41)			
	% Problem	Rank	% Major obstacle	Rank	% Problem	Rank	% Major obstacle	Rank
Category 1. Leadership and policy direction								
1. Concerns for quality improvement (QI) (S)	87.4	9	18.7	7	92.7	5	12.2	10
2. Promotion of staff participation (P)	92.6	3	24.0	3	97.6	2	24.4	6
3. Participation in QI (P)	84.3	15	13.0	12	100.0	1	19.5	8
Category 2. Resource management								
4. Budget for QI activities (S)	79.8	18	21.4	4	95.1	3	12.2	10
5. Communication among departments (P)	92.3	4	12.0	13	97.6	2	26.8	5
6. Human resource development policies (S)	85.3	13	14.3	11	95.0	4	27.5	4
7. Adequacy of staff (S)	89.7	7	34.6	1	95.1	3	29.3	3
8. Adequacy of medical equipment (S)	85.3	14	17.2	9	95.1	3	2.4	14
9. Efficiency of maintenance system (P)	90.2	6	19.4	6	97.6	2	19.5	8
10. Integration and utilization of information (P)	93.5	2	26.6	2	100.0	1	43.9	1
Category 3. QI								
11. QI activities (P)	94.9	1	14.6	10	100.0	1	14.6	9
12. Clinical practice guideline development (P)	91.3	5	12.0	14	100.0	1	22.0	7
13. Knowledge of staff about infection control (S)	85.6	12	6.6	21	95.1	3	2.4	14
Category 4. Professional standards and ethics								
14. Concerns for professional standards (S)	74.3	23	6.9	19	87.8	7	2.4	14
15. Professional standard manuals (S)	76.2	22	6.7	20	92.7	5	2.4	14
Category 5. Patient rights and organizational ethics								
16. Prosecutions and complaints about services (P)	86.5	10	8.5	16	92.3	6	0.0	15
17. Concerns of staff about patient rights (S)	72.9	24	6.2	22	95.1	3	7.3	12
Category 6. Patient care								
18. Staff competency (S)	79.7	19	4.8	24	92.7	5	9.8	11
19. Multidisciplinary care (P)	86.3	11	21.3	5	100.0	1	24.4	6
20. Discharge and referral process (P)	80.1	17	8.8	15	100.0	1	31.7	2
21. Medical recording process (P)	88.0	8	17.9	8	97.6	2	29.3	3
22. Emergency care process (P)	82.0	16	8.4	18	97.6	2	4.9	13
23. Pharmacy process (P)	78.7	21	5.4	23	97.6	2	14.6	9
24. Consultation process (P)	79.4	20	8.5	17	97.6	2	4.9	13

Pongpirul K, et al. Comparison of health care professionals' and surveyors' opinions on problems and obstacles in implementing quality management system in Thailand: a national survey. Int J Qual Health Care 2006;18(5):346-351.

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