

Developing pay-for-performance concept for Indonesia's primary care: What do the doctors say?

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The national midterm development plan in health indicates the need to correct capitation payment system with quality components

No	Midterm development plan			Target				
	Strategy	Process	Output	2015	16	17	18	19
8	Develop provider payment system which endorse quality & efficiency	Correct capitation and INA-CBG payment systems by components of quality (pay-for-performance) and equity	<ul style="list-style-type: none"> Improved JKN patient satisfaction Capitation tariff adjusted by quality & equity components INA-CBGs tariff adjusted by quality & equity components 					
				Study period		Implementation		

Source: Bappenas, 2014

Before developing pay-for-performance, we must carefully consider at least three factors

- Marshall *et al.*, 2006 → Performance indicators
- Dudley & Rosenthal, 2006 → How to finance the system
- Casalino *et al.*, 2007; Teleki *et al.*, 2006; Saint-Lary *et al.*, 2013 → Doctors' opinion to predict the impact of pay-for-performance on doctors' behaviour

Let's start by discussing about performance indicators

There are many indicators developed by different countries/organizations

- National:
 - BPJS Kesehatan
 - Ministry of Health
- International:
 - OECD
 - NHS, UK
 - Blue Cross Blue Shield, USA
 - RAND Corporation
 - National Primary Care Research & Development Centre, UK
 - Canada

This study follows OECD's method in selecting performance indicators (Marshall et al., 2006)

- Compile indicators from literatures
- Filter for duplication
- Using a scale of 1-9, a panel of primary care experts assesses the indicators for:
 - Importance
 - Scientific soundness
- Indicators with median score of 7-9 are considered robust, 4-6 as equivocal, and 1-3 as weak

Should we use ‘stick’, ‘carrot’, or both? (Dudley & Rosenthal, 2006)

- Gapenski & Pink (2004) introduced a concept to finance pay-for-performance from within the capitation
- The concept is called ‘Performance withhold’
- Deduct a proportion of monthly capitation (ex 5%) to form ‘incentive fund’
- The fund will be redistributed annually to each doctor based on their weighted performance score

	Doctor A	Doctor B	Doctor C
Registered patient (in person)	2,500	3,000	3,500
Monthly capitation (in IDR)	20,000,000	24,000,000	28,000,000
5% monthly deduction (in IDR)	1,000,000	1,200,000	1,400,000
Yearly deduction (in IDR)	12,000,000	14,400,000	16,800,000
Performance score	55	44	33
Weighted performance score	15.28	14.67	12.83
Incentive received (in IDR)	15,428,571	14,811,429	12,960,000
Surplus/deficit (in IDR)	3,428,571	411,429 -	3,840,000

From previous explanations, the research questions are formulated as follow:

- Which performance indicators receive high average score and supported by the majority of primary care doctors? Is there any variation across provinces?
- What do the doctors say about 'performance withhold' concept? Do they have other suggestions on how to finance the pay-for-performance system?
- What factors are associated with doctors' support towards pay-for-performance system?

This study slightly modifies OECD's method in selecting the suitable performance indicator & payment system

- Instead of involving a panel of primary care experts, this study asks the opinion of a nationally representative private primary care doctors
 - 523 doctors in 16 provinces
- I use a scale of 1-9 to assess the following criterias:
 - Importance
 - Easy to implement in local setting
 - Potentially reduce hospital cost (Martin et al., 2010)
- Indicators with average score ≥ 8 and receive support by $\geq 80\%$ doctors in each province are selected

Respondents' demography

Total respondents **523**

Daily open hours

▪ Average	7.1
▪ Standard deviation	4.8
▪ Minimum	2
▪ Maximum	24

Weekly open days

▪ Average	6.0
▪ Standard deviation	0.7
▪ Minimum	1
▪ Maximum	7

Experience (in years)

▪ Average	7.6
▪ Standard deviation	7.7
▪ Minimum	0.02
▪ Maximum	47

Province

• Sulteng	17
• Kaltim	19
• Sultra	12
• Kalbar	14
• Sumut	26
• Sumsel	45
• Jateng	111
• Jatim	72
• Bengkulu	42
• Jambi	20
• Sumbar	21
• Jabar	66
• Maluku	14
• NTT	10
• Papua	19
• Kalteng	15

After collecting, compiling & filtering, 24 indicators were produced which include:

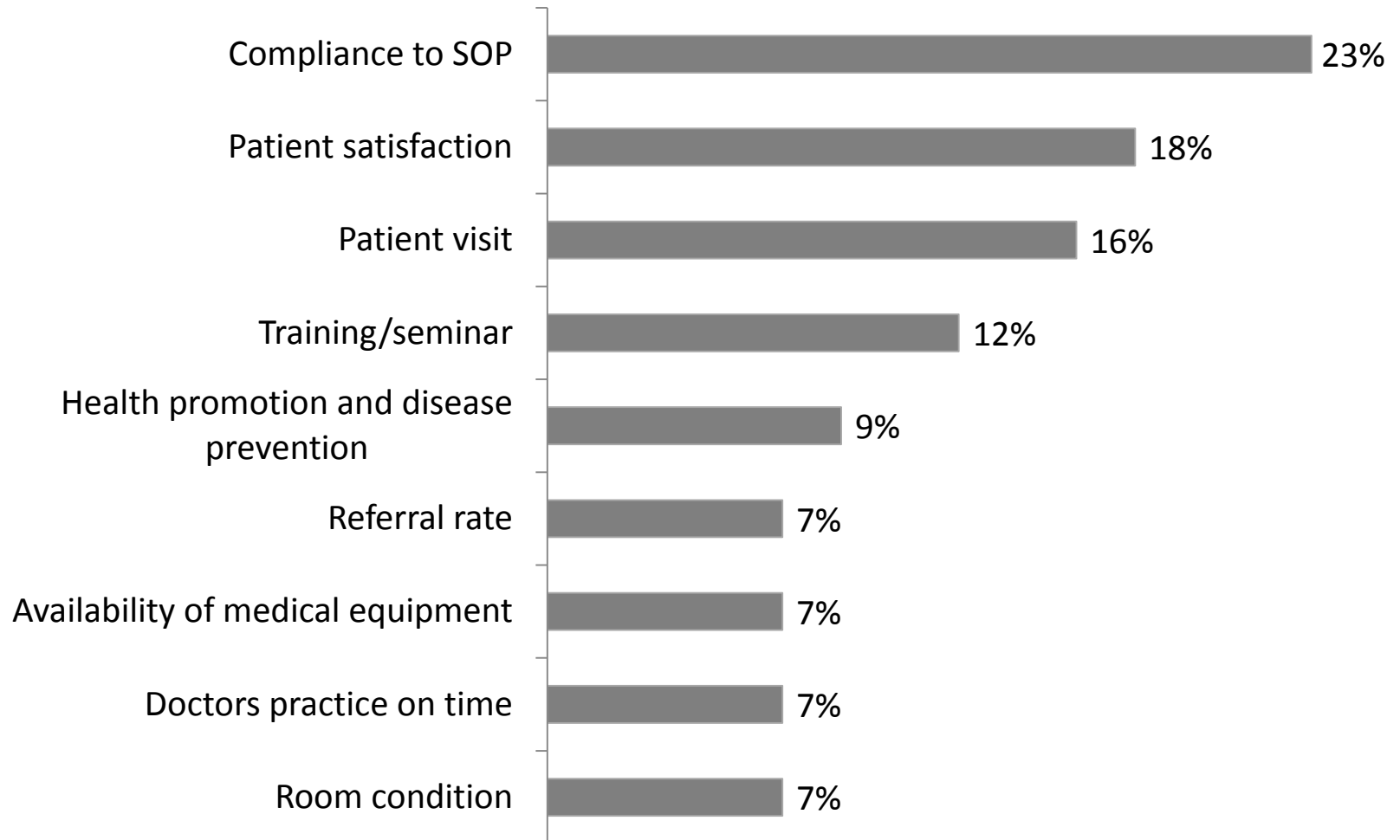
- Specific treatment to patients with chronic diseases, high body mass index, smoking habit
- Screening: cervical cancer, pregnancy, cholesterol, blood sugar
- Child's health and basic immunization
- Doctors peer review
- Same-day appointment/information service
- Updated patient medical record
- Comfortable waiting room
- Compliance to Ministry of Health's regulation

On the national level, indicator 24 (compliance to regulation from the Ministry of Health) is the only indicator that qualifies

There are variations across provinces

Indicator	National	Sumut	Sumbar	Bengkulu	Jambi	Sumsel	Jabar	Jateng	Jatim	Kalbar	Kalteng	Kaltim	NTT	Sulteng	Sultra	Maluku	Papua
1	68%	38%	71%	74%	65%	67%	30%	80%	82%	93%	53%	47%	80%	76%	92%	93%	68%
2	55%	35%	43%	52%	65%	64%	27%	64%	69%	57%	47%	47%	80%	47%	58%	71%	53%
3	62%	35%	67%	69%	80%	58%	39%	69%	69%	86%	47%	47%	80%	47%	67%	86%	79%
4	58%	35%	52%	55%	70%	67%	41%	68%	69%	64%	27%	32%	60%	47%	67%	79%	53%
5	32%	31%	38%	17%	25%	53%	30%	26%	38%	14%	33%	26%	70%	29%	50%	36%	32%
6	41%	35%	38%	21%	25%	47%	38%	41%	49%	29%	47%	32%	70%	35%	67%	71%	42%
7	47%	35%	57%	36%	25%	53%	35%	44%	68%	36%	27%	37%	60%	41%	67%	71%	58%
8	67%	35%	76%	60%	65%	71%	45%	76%	81%	93%	40%	47%	70%	76%	75%	86%	89%
9	54%	42%	76%	40%	35%	56%	50%	52%	61%	50%	47%	47%	50%	47%	67%	79%	74%
10	65%	46%	86%	60%	60%	69%	50%	66%	85%	57%	33%	47%	70%	76%	75%	71%	63%
11	54%	46%	71%	43%	35%	60%	33%	68%	56%	50%	33%	53%	60%	59%	67%	71%	63%
12	59%	46%	67%	52%	50%	62%	62%	56%	67%	36%	40%	47%	60%	53%	67%	79%	79%
13	63%	50%	76%	60%	60%	67%	61%	71%	51%	86%	33%	53%	50%	71%	58%	71%	74%
14	56%	42%	67%	43%	40%	56%	65%	65%	42%	50%	40%	58%	60%	35%	67%	71%	89%
15	58%	46%	62%	36%	45%	47%	64%	69%	74%	21%	40%	47%	60%	53%	67%	50%	74%
16	65%	62%	48%	48%	55%	56%	59%	75%	88%	71%	33%	47%	60%	59%	75%	79%	58%
17	53%	54%	71%	31%	40%	42%	61%	54%	47%	50%	47%	47%	70%	71%	67%	93%	53%
18	64%	62%	76%	52%	45%	64%	62%	69%	71%	79%	33%	53%	60%	71%	42%	79%	63%
19	65%	54%	76%	64%	60%	69%	52%	68%	75%	79%	40%	53%	60%	65%	67%	86%	63%
20	60%	54%	71%	48%	40%	73%	55%	65%	78%	86%	27%	53%	60%	59%	50%	43%	32%
21	63%	54%	76%	48%	45%	67%	76%	68%	75%	79%	13%	53%	60%	59%	75%	50%	32%
22	70%	58%	81%	60%	55%	62%	86%	76%	83%	57%	27%	53%	70%	53%	67%	71%	74%
23	74%	69%	90%	74%	60%	78%	74%	77%	86%	57%	33%	53%	70%	71%	75%	79%	68%
24	82%	77%	90%	71%	60%	80%	97%	86%	88%	86%	47%	58%	70%	76%	83%	100%	74%

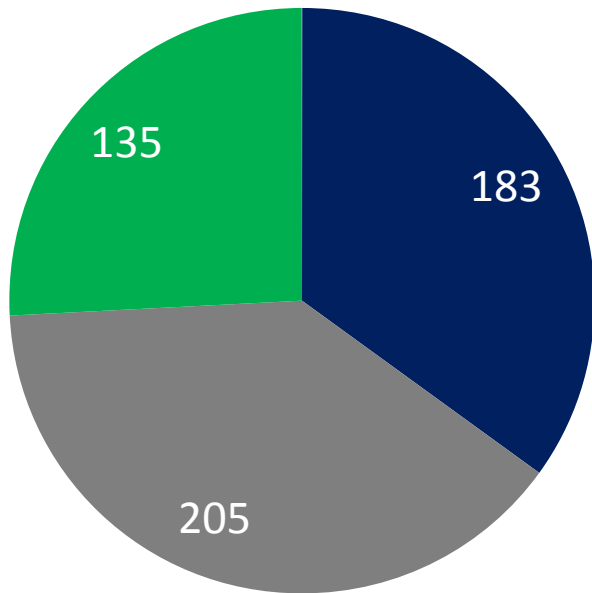
Doctors also consider compliance to SOP and patient satisfaction as alternative performance indicators



Other than the indicators described above, do you have other suggestions which you deem appropriate to assess primary care doctors' performance in your area?

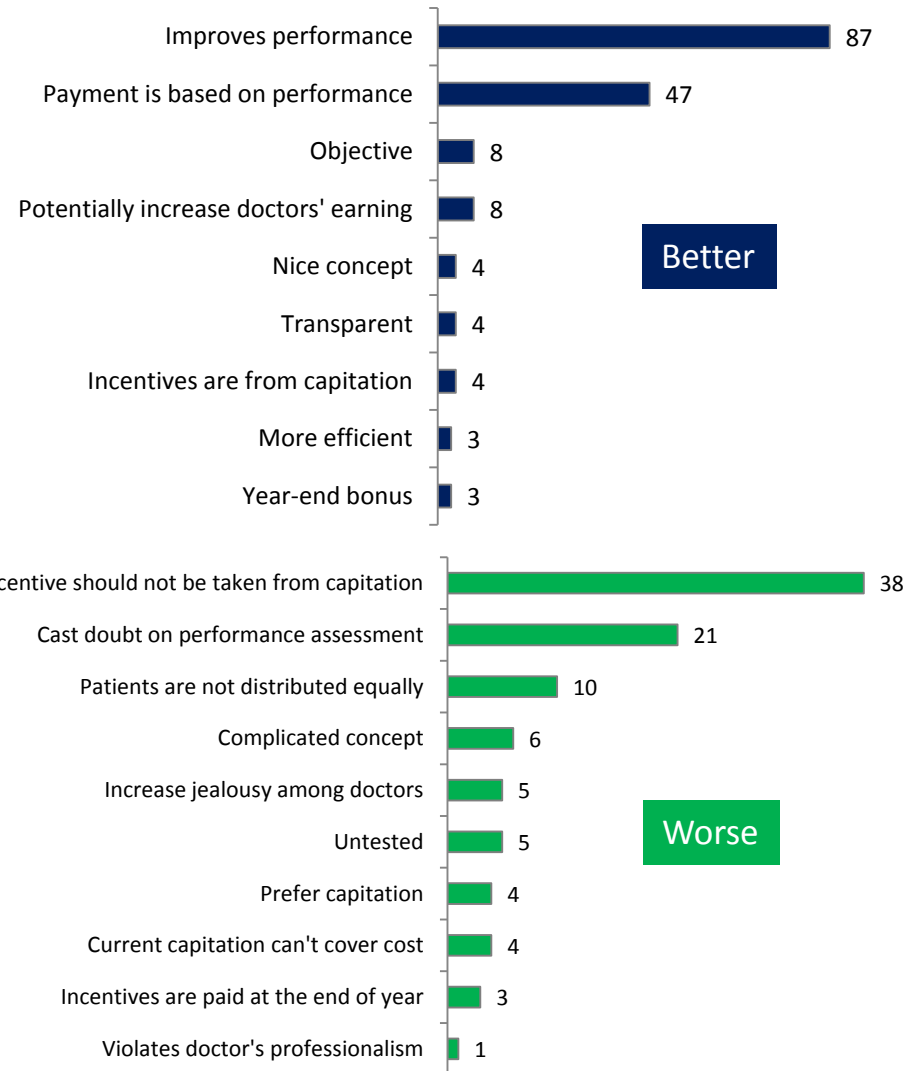
Most doctors are sceptical about performance withhold

But the number of pros exceeded the contra



■ Better ■ Neutral ■ Worse

I would like to introduce you to a new payment system called 'Performance withhold' [SHOWCARD]. You may read this show-card before we continue to the next question. In general, what do you think about this system compared to capitation? (1. Better; 2. Neutral; 3. Worse). Why?



I also ask the doctors whether there are non-financial incentives that may improve their performance

Only 30 doctors responded

Province	Scientific activities/ seminar	Training/ education	Certificate	Medical equipment	Travelling abroad	Total
Bengkulu		2	1			3
Jabar			1			1
Jambi		1				1
Jateng		3	4	2		9
Jatim			1			1
Kalbar	1	1				2
Kalteng				1		1
Kaltim	1	1				2
Papua		2			5	7
Sulteng			1			1
Sumbar		2				2
Total	2	12	8	3	5	30

The logistic regression attempts to seek factors associated with doctor's support towards pay-for-performance. Variations are significant across provinces.

Support pay-for-performance	Coef.	Std. Error	z	P> z
Male (0 = female)	0.29	0.23	1.26	0.21
Log (doctor's experience)	0.07	0.12	0.59	0.55
Urban (0 = rural)	-0.07	0.31	-0.24	0.81
> 1 doctor (0 = 1 doctor)	0.16	0.23	0.68	0.50
University accreditation (reference = A)				
B	-0.29	0.27	-1.06	0.29
C	0.54	0.44	1.23	0.22
> 1 work places (0 = 1 work place)	-0.12	0.24	-0.49	0.62
Knowledge on ministry of health regulation	-0.86	0.61	-1.40	0.16
Log (registered patient)	-0.30	0.18	-1.66	0.10
Province (reference: Bengkulu)				
Jabar	0.54	0.49	1.10	0.27
Jambi	0.40	0.66	0.61	0.54
Jateng	-0.18	0.49	-0.36	0.72
Jatim	0.66	0.49	1.35	0.18
Kalbar	0.62	0.71	0.89	0.38
Kalteng	-0.67	1.20	-0.55	0.58
Kaltim	0.60	0.68	0.87	0.38
Maluku	1.29	0.85	1.51	0.13
NTT	1.94	0.98	1.98	0.05
Papua	0.40	0.66	0.60	0.55
Sulteng	2.48	0.75	3.29	0.00
Sultra	2.58	0.81	3.17	0.00
Sumbar	2.01	0.72	2.80	0.01
Sumsel	-0.15	0.57	-0.26	0.80
Sumut	1.45	0.58	2.51	0.01
Intercept	0.04	0.83	0.05	0.96

Conclusions

- Regulation from Ministry of Health is considered appropriate as the main performance indicators
 - Preference towards performance indicators varies across provinces
- The majority of doctors are sceptical on ‘performance withhold’ concept
 - Needs more time to learn the concept
- Support towards pay-for-performance system varies between provinces



Thank you