

NATIONAL SURVEY OF QUALITY INDICATORS FOR THE HOSPITAL TRANSFUSION CHAIN



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Background

The revised Dutch blood transfusion guideline (2011) published internal quality indicators for the hospital transfusion chain to measure aspects of guideline compliance.

Method

The indicators were collected by voluntary online survey in 2011 and 2012. The indicators consist of 4 structural indicators and 3 process indicators that required provision of figures.

Results

Participation: 2011 78% (78 out of 100 hospitals); 2012 78% (76 out of 98 hospitals). Not all responders reported on process indicators 5, 6 and 7.

Indicator 1a Instatement of transfusion committee (TC)

96% of responding hospitals had instated a TC (2011&2012).

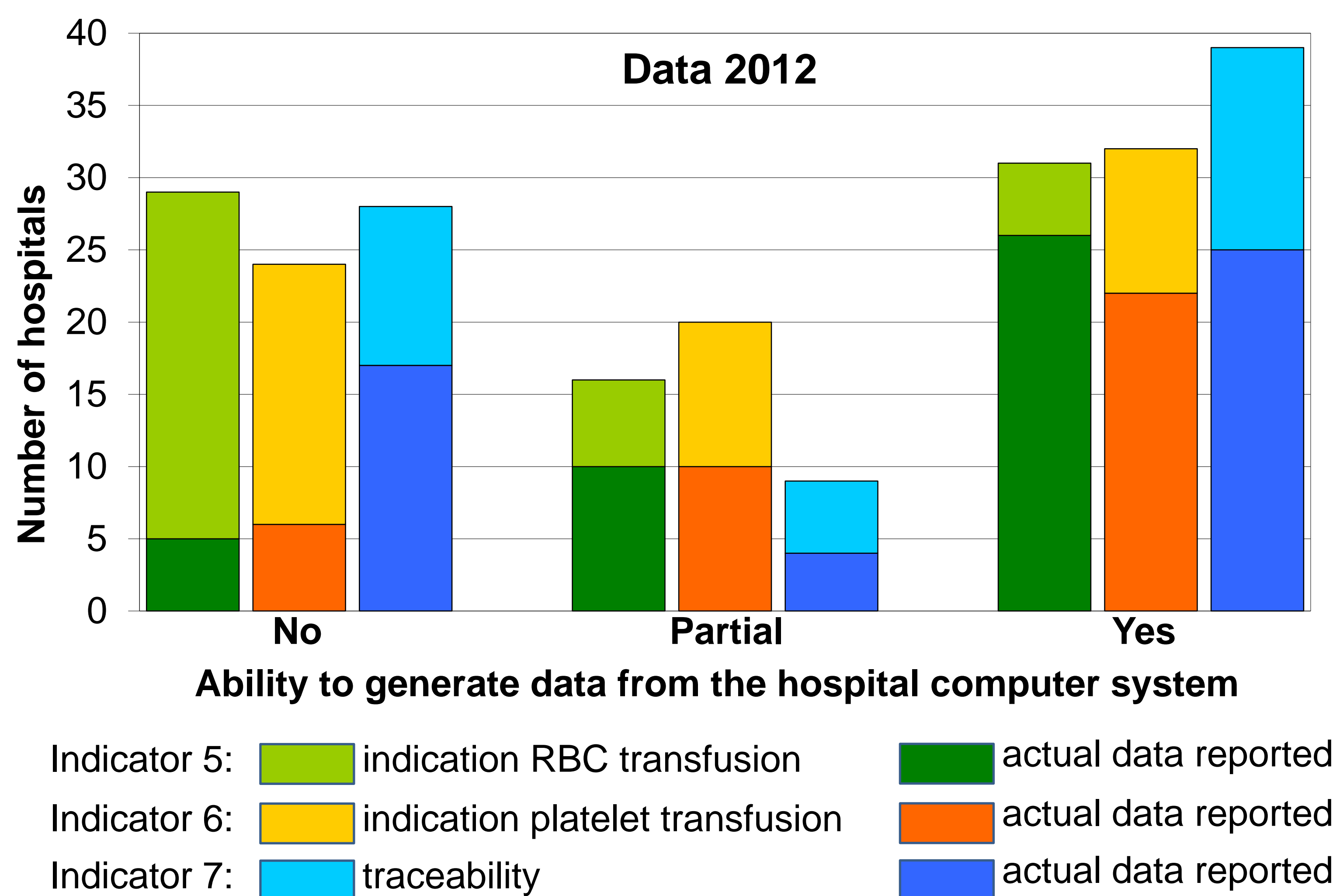
Indicator 2a Employment transfusion safety officer (TSO):

83% -89% (2011/2012) of responding hospitals employed a TSO.

TRIP Hemo-en biovigilantie		Indicator 2b TSO time allocation					
		≥ 8 hours/week		< 8 hours/week		Total	
Indicator 1b		2011	2012	2011	2012	2011	2012
Annual number of TC meetings	≥ 4	14%	23%	17%	13%	31%	35%
	< 4	36%	32%	33%	32%	69%	65%
	Total	50%	55%	50%	45%	100%	100%

14% (2011) and 23% (2012) of responders complied both with the recommended minimum of four annual transfusion committee meetings and 8 hours' weekly employment of a transfusion safety officer.

Indicator 3 Ability to generate data from hospital computer system with regard to indicators 5,6 & 7



Indicator 4 Deployment of electronic pre-transfusion check of patient and blood product identity

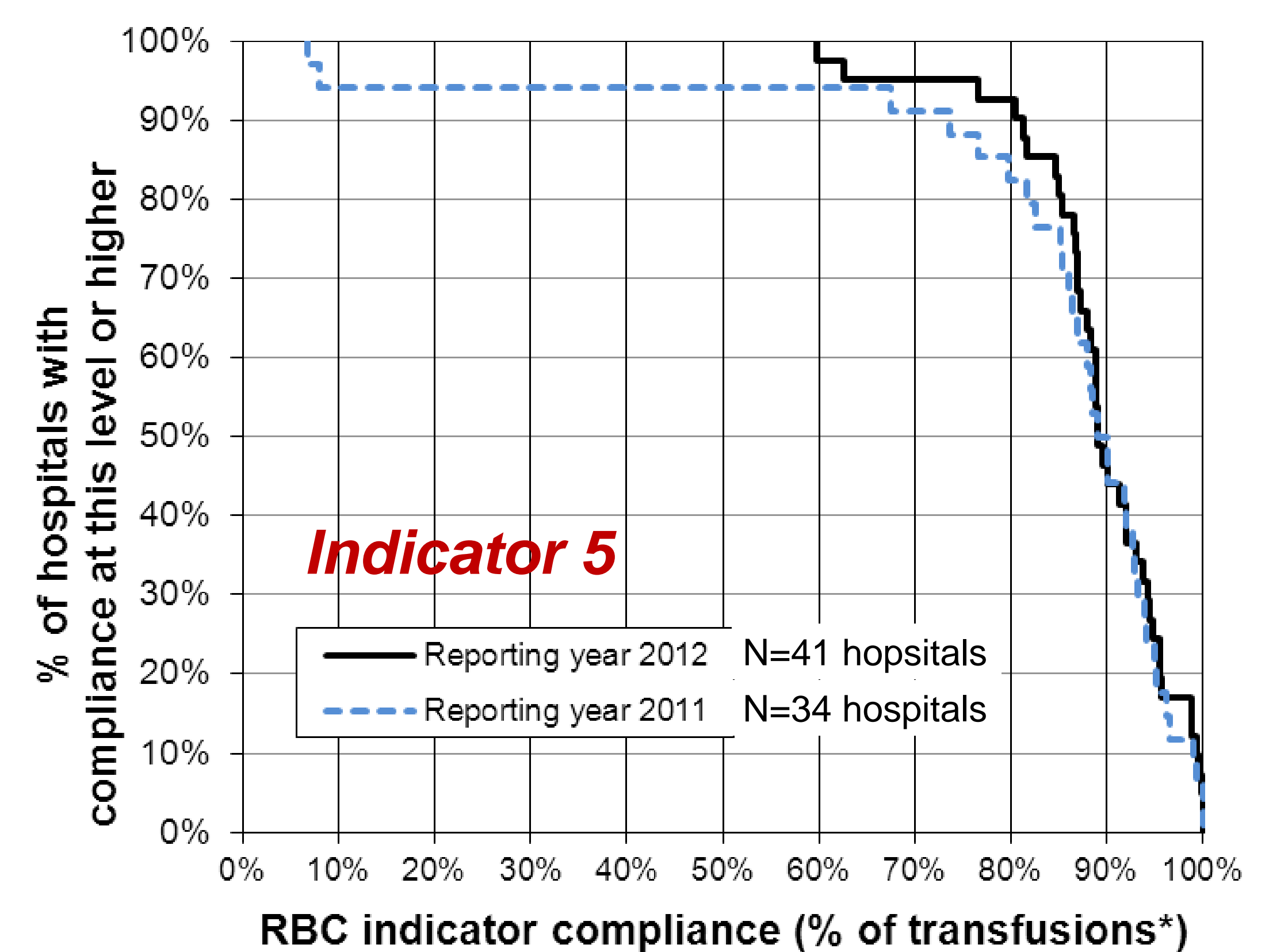
1 hospital reported hospital-wide implementation of electronic pre-transfusion check and 6 reported partial implementation on a limited number of wards (2011: 4 hospitals reported partial implementation)

Conclusions

- Participation in the voluntary survey of quality indicators was high, but lower for process indicators that required provision of actual performance data.
- Data regarding 2012 were comparable to 2011 and did not show statistically significant changes.

Indicator 5 Indication setting for RBC transfusion: percentage of transfusions with pre-transfusion Hb level ≤ 6 mmol/l (≤ 9.6 g/dl)

- Aims to measure unnecessary transfusions.
- A RBC transfusion at Hb > 6 mmol/l (> 9.6 g/dl) within 72 hours of transfusion is rarely indicated.
- Time frame Hb measurement (< 72 hours before transfusion) chosen to be able to include outpatients and inpatients.
- 82% (2011) and 90% of respondents reported > 80% of RBC transfusions complying to transfusion trigger



Indicator 6 Indication setting and evaluation of platelet (plt) transfusion in hemato-oncology patients by measuring platelet levels before and after transfusion

- 2011: 30 hospitals responded: platelet counts available in 35-100% of transfusions.
- Wide variation in response may be due to two questions in one indicator => 2012 split into 6a pre transfusion count and 6b effect measurement.
- 2012: 38 hospitals reported data: 58% of hospitals measured pretransfusion plt count and 35% measured effect in > 80% of plt transfusions

Indicator 7 Traceability of transfusions: confirmation of transfusion or final disposal of a blood component

- Response 40 (2011) and 46 (2012) hospitals
- Traceability high: 83% and 89% of responders reported traceability in > 95% of transfusion.
 - 24% had complete (100%) traceability of all blood components. In 2012 added questions on the actual administrative processes of traceability by the transfusion lab found:
 - Administrative methods used vary widely.
 - 20% do not confirm transfusion; after issue from the lab transfusion is assumed.
 - 23 responders (31%) reported adequate administrative procedures.

- The indicators can be used for monitoring aspects of the quality of the hospital transfusion chain, guideline compliance and optimal blood use.
- The results for indicators 1, 2, 5, 6 and 7 should approach 100%. Improvement of the compliance rates should be achievable.
- The results may be used for (inter)national benchmarking.

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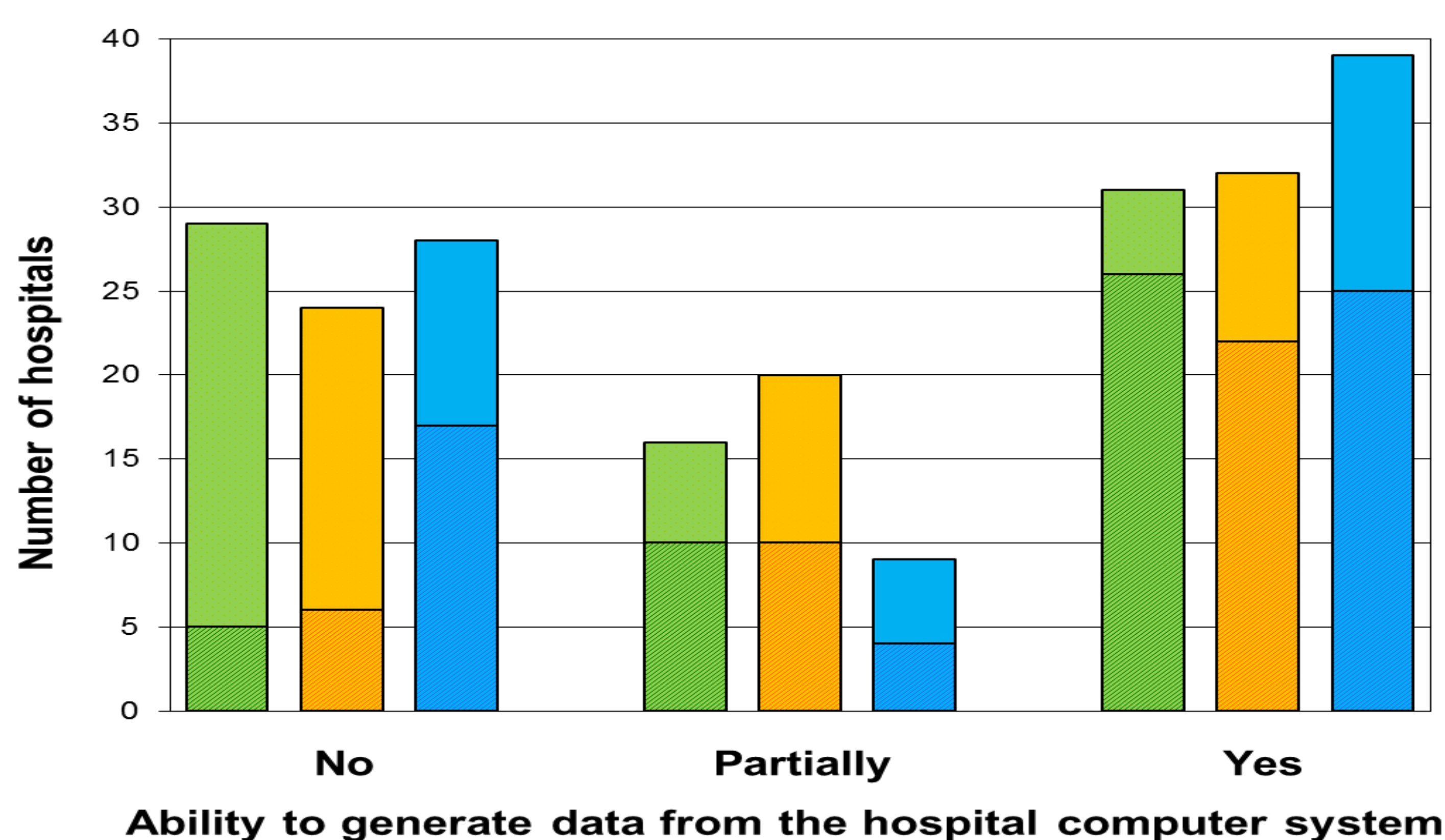
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Indicator 3 *Ability to generate data from hospital computer system with regard to indicator 5,6 & 7*



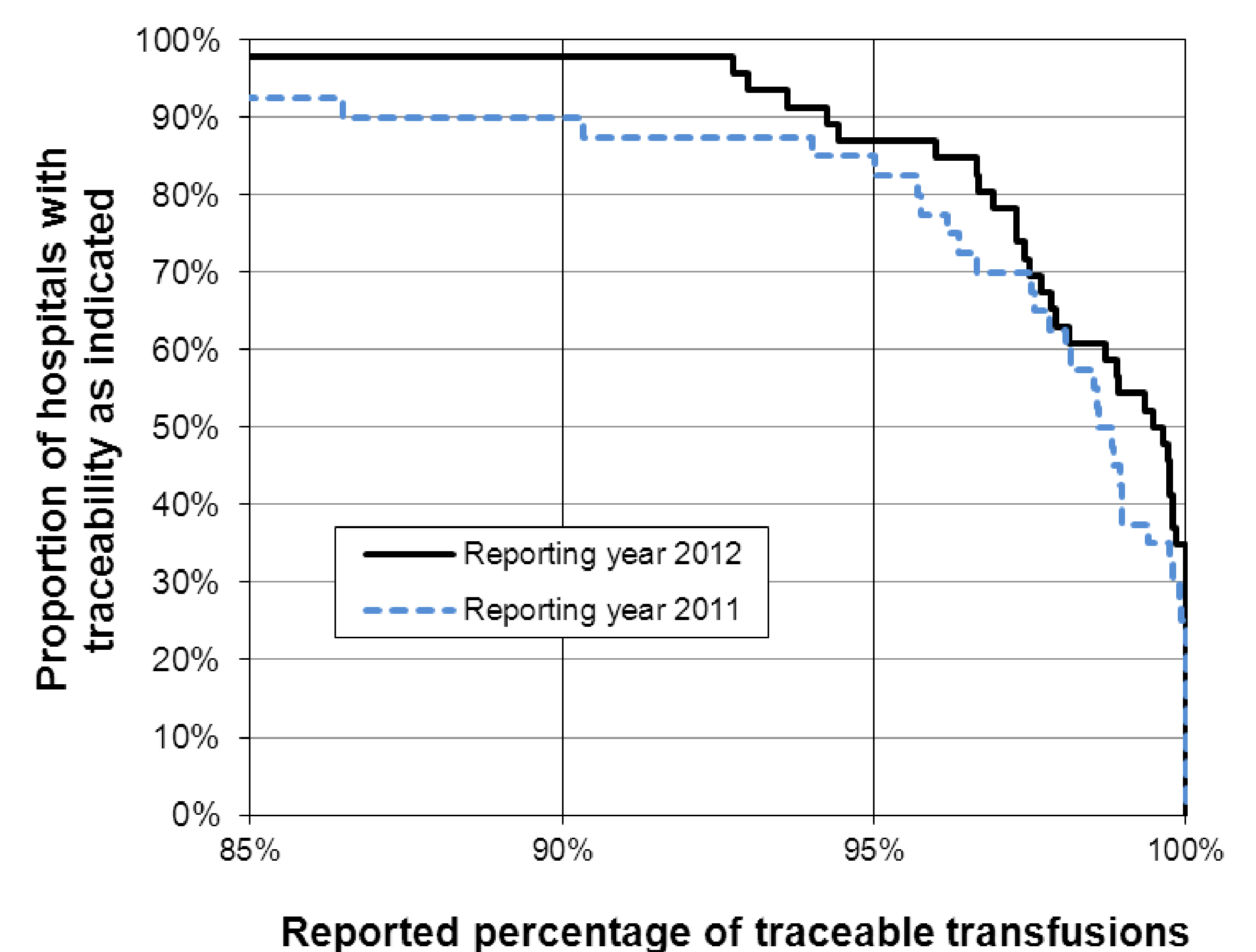
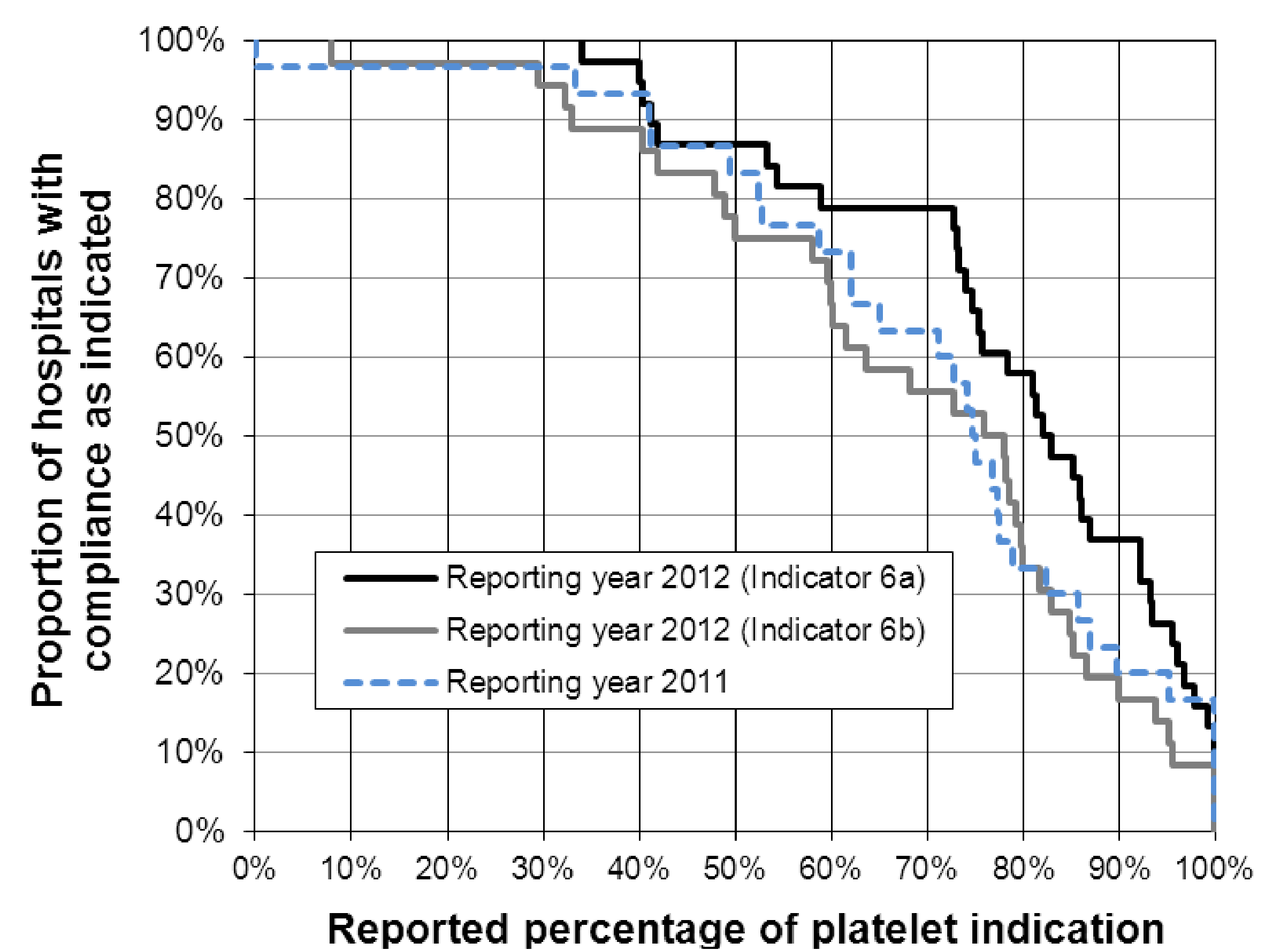
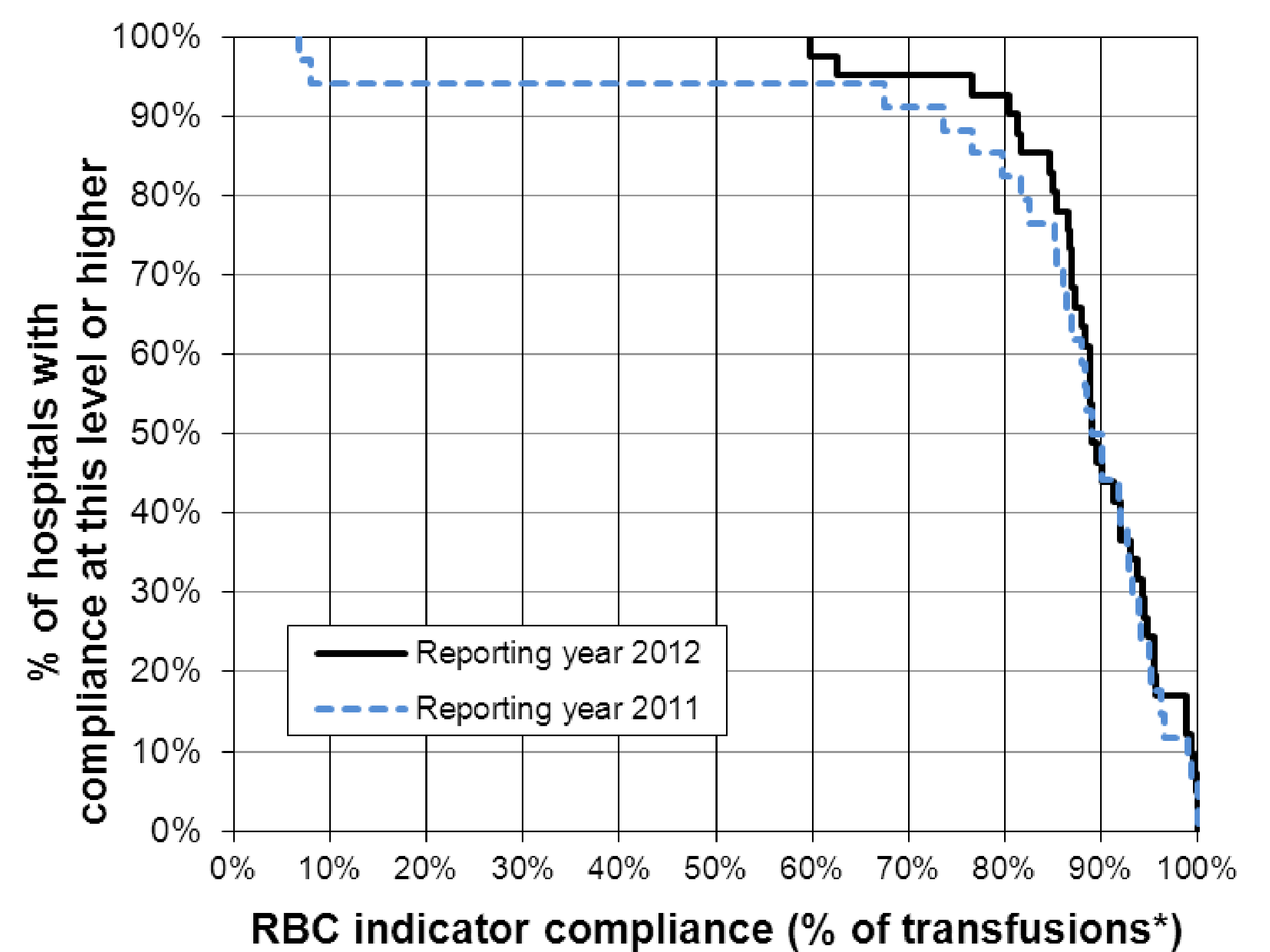
Indicator 5: ■ indication RBC transfusion ■ actual data reported
 Indicator 6: ■ indication platelet transfusion ■ actual data reported
 Indicator 7: ■ traceability ■ actual data reported

Indicator 4 *Deployment of electronic pre-transfusion check of patient and blood product identity*

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