Quality Based Financing in Norway

Country Background Note: Norway

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List of acronyms

ABF	Activity Based Financing
MHCS	Ministry of Health and Care Services
NDH	Norwegian Directorate of Health
NOK	Norwegian Kroner
NQIS	National Quality Indicator System
P4P	Pay for Performance
QBF	Quality Based Financing
RHA	Regional Health Authority

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ABSTRACT

A pay for performance (P4P) scheme termed Quality Based Financing (QBF) was introduced in Norway in January 2014. QBF was designed as a pilot project for three years and covers all the public hospitals and public funded private hospitals. The main objective is to test the use of financial incentives to motivate the hospitals to increase overall quality and patient safety.

QBF is based on how well hospitals perform on a set of quality indicators and a set of performance criteria. Norway has established a National Quality Indicator System comprising 100 indicators. Out of these, 33 are also in use in the QBF. Three different types of quality indicators are included; indicators for outcome, process and patient satisfaction. In order to motivate the providers broadly, four different criteria are used to measure and reward performance; reporting quality, minimum performance level, best performance and best relative improvement.

Norway is divided into four health regions which organize, provide and purchase all the secondary care services. The government allocates resources to the health regions based on a mix of activity based schemes and block grants. Similarly, the funds through QBF are initially distributed to the health regions despite the fact that they are determined by the individual hospital's performance on the selected indicators and the rewarding criteria. At present, QBF represents NOK 500 million or around 0.5 percent of the health-regions total block grant budgets. Compared to a block-grant distribution of these NOK 500 million, the redistribution effect of QBF represents a 10 percent decrease for one health region and the corresponding increase for three other regions.

1. Introduction

A pay for performance (P4P) scheme termed Quality Based Financing (QBF) was introduced in Norway January 2014, as a pilot financing system for the secondary health care sector. It covers all public hospitals in Norway. QBF (NDH, 2013) is based on how well hospitals perform on a set of quality indicators and a set of performance criteria. Three types of indicators are included in the P4P scheme; outcome, process and patient satisfaction. Four different criteria are used to measure and reward performance.

2. Context and problem the reform aims to address

In a white paper[1] to the parliament, - Meld. St. 10 (2012-2013) High Quality – Safe Service[2] (MHCS, 2012), the government presented a comprehensive policy for quality and patient safety. The overall objective was to direct attention to the content of the health care service in Norway. The Government's goal was a more patient-centred health and care service, increased emphasis on systematic quality improvement, patient safety and reduction in adverse events. In order to achieve the overall objectives of quality and patient safety, the following elements were proposed to be implemented:

- More active patient and user role
- Structures that support quality efforts
- Quality improvement in the service
- Greater transparency of quality and patient safety
- More systematic testing of new treatment methods
- Better quality through knowledge and innovation

One of the measures the government introduced in the report was a quality based financing scheme.

In 2012 Norway established a National Quality Indicator System (NDH, 2014) with the purpose of monitoring the quality and improving the governance of the health service. This system is managed independently of any financial objective. The National Quality Indicator System (NQIS) consists of 100 indicators that measure some aspect of quality in the secondary care, long term care and dental care setting. The NQIS is revised on a yearly basis, new indicators may be developed, and indicators with declining relevance can be removed from the set. The QBF utilizes the NQIS, by attaching reimbursement to hospital performance on the indicators included in the P4P scheme.

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[1] In Norway the Government is either presenting its policy initiative as a concrete proposal *"Proposjoner til Stortinget (Prop.)"* like Bills and Budgets, to be passed in the parliament, or a report *"Meldinger til Stortinget (Meld. St)*" to be discussed in the parliament. A report presents and elaborates a specific political issue, but does not comprise Bills or Budgets to be passed.

[2] A summary of this report is translated into English, see reference list.

3. Understanding the payment reform

To better understand the QBF, it is necessary to put QBF in context of the organization and financing of the secondary healthcare. Norway is divided into four health-regions, each managed by a Regional Health Authority (RHA). The RHAs are organised as public corporations, and wholly owned by the Ministry of Health and Care Services. Each RHA is responsible for providing secondary health care services on behalf of the government, to all the inhabitants in their region. The RHAs own all the public hospitals in their region and can enter into contracts with private providers.

Until 2014, the secondary healthcare sector was financed through a mix of block grants and activity based financing (ABF), with ABF representing close to 25 percent of global budget. The block grant for each RHA is based on the number and age of inhabitants in the region, several health indicators (like mortality and the share of disabled in the region) and social indicators (like the share of the people with only primary education) and finally the cost level of the region. The ABF is DRG-based and the reimbursement rate is 50 percent of calculated national average costs. It covers only somatic treatments, but both inpatients and outpatients. For each RHA the ABF reflects the number of patients treated in the hospitals the RHA owns. Psychiatry and treatment of drug and alcohol abuse are mainly financed by block grants (fee-for-service is used for outpatients).

The same structure of financing is applied at the hospital level. In principle RHAs are entitled to deviate from the national model when designing income models or financing schemes for hospitals, for instance in order to reflect different case mix. In practice, the DRG-reimbursement is applied unmodified to the hospital level, whereas the block grants are used to customize the resource allocation according to case mix.

The new payment scheme based on quality measurements, thus represents a third type of resource allocation mechanism and is considered a supplement mechanism to the existing financing systems. QBF amounts to NOK 500 million or around 0.5 percent of the RHAs block grant budgets. The main objective is to use financial incentives to motivate the hospitals to increase overall quality and patient safety delivered to patients in their care. The scheme targets the RHAs, and was introduced across all four regions and therefore includes all public secondary care providers, and also private hospitals with a contract with the RHA. The RHA budget is reallocated based on the hospitals' achievement on the chosen set of quality indicators.

The level of remuneration in the P4P scheme was decided upon to start low. Several arguments were put forward as to why a high level could be counter effective for the purposes of the scheme, that is to motivate hospitals to increase *overall quality and patient safety.* For example a high reward could crowd out the intrinsic motivation of the health care workers. In addition it could lead to gaming effects and teaching to the test as the providers have more incentives to focus on the aspects of care which are measured and rewarded.

The P4P scheme uses a point system where each RHA is rewarded with points based on how well hospitals perform on a set of quality indicators and a set of performance criteria. The total number of points in the model is fixed at 100 000. To measure quality it utilizes 33 indicators from the NQIS. It was

decided to use indicators from the NQIS as they are already being measured in the hospitals. This minimises any additional bureaucracy arising from the implementation of a new financing system, and reduces transaction costs. The indicators included in the P4P scheme were evaluated in order to assess their appropriateness in being tied to a financing mechanism. This involved an evaluation of the underlying data quality, an assessment of their clinical legitimacy and whether the risk of unintended incentives is acceptable when they are tied to funding. Some indicators were excluded due to uncertainty in reporting quality, others because the performance of the indicators was considered to be affected by factors beyond the control of the secondary care provider.

There are three types of indicators in the scheme; outcome, process and patient satisfaction. The indicators measuring patient satisfaction come from the National Patient Satisfaction Survey, which is carried out on a yearly basis. Each type of indicator is weighted to reflect their relative importance. Based on this, the following distribution of points has been implemented in QBF:

- 50 000 points for outcome indicators
- 20 000 points for process indicators
- 30 000 points for patient satisfaction

The scheme does not intentionally target a specific patient group. However, a large proportion of the outcome indicators measure 5 year survival rates for various types of cancers and this disease group is therefore heavily represented in the indicator set. For each indicator the amount of points a RHA receives is dependent on the performance by the hospitals within their region. Most of the indicators are measured on the hospital level, but the 5-years survival rates for cancer are only measured on the regional level. The performance criteria are:

1. Reporting quality
2. Minimum performance level
3. Best performance
4. Best relative improvement in performance

3.1 Reporting quality

The reporting quality criterion measures the quality in the registration and the reporting of data according to the requirements set for the different quality indicators. Only when the requirements are met, a specific indicator will generate points. The number of points available will then be distributed equally between the hospitals who meet the target.

3.2 Minimum performance level

A minimum performance level is defined where relevant, and is always set at 25 percentile after ranking all the hospitals. The aggregated performance of the region is measured according to the minimum level. Each RHA receives performance points if they meet the targeted minimum level.

Examples:
For the indicator *"Perineal tear 3rd and 4th degree",* the minimum level was set at a share of 2.3 percent of all vaginal births in 2015. A region reporting a higher rate will not earn points for this indicator. The number of points available will be distributed equally between the regions who meet the minimum target.

For the indicator *"Discharge summary sent within 7 days"* the minimum level was 79.8 percent in 2015. A region reporting a lower rate will not earn points for this indicator. The number of points available will be distributed equally between the regions who meet the minimum target.

For the patient satisfaction indicators the maximum score is 100. Minimum level regarding the indicator *"Physicians performance"* was a score of 72.3. For regions with a lower score no points will be earned. Also, in this case, the number of points available will be distributed equally between the regions who meet this target.

3.3 Best performance

The RHAs who meet the data reporting quality requirements are ranked and given points according to their absolute performance for each indicator. First place is awarded with 50% of the points, second place with 30 % and third place with 20%. Fourth place generates no points.

3.4 Best Relative improvement

The RHAs who meet the data reporting quality requirements are also ranked according to their improvement for each indicator. The improvement is measured in percentage points. First place is awarded with 50 % of the points, second place with 30 % and third place with 20 %. Fourth place generates no points.

Reporting quality was set as a criterion to ensure that the RHAs set focus on the reporting of the data for indicators where the data is lacking. By using a minimum criterion, the intention was to reward all performance that already had a high standard. Remuneration of the best performance was to motivate the improvement beyond the minimum level. Lastly, the RHAs were ranked on their improvement. RHA's with a low absolute performance got an opportunity to earn points by improving performance more than the other RHAs.

Below is a diagram summarising the design of the scheme displaying the weighting and number of points awarded for each indicator and performance criteria.

Figure 1. Quality Based Financing, Norway

Quality Based Financing (QBF)

100 000 points

10 Outcome indicators 50 % (50 000 p)			13 Process indicators 20 % (20 000 p)			10 Patient Satisfaction 30 % (30 000 p)		
1	Perineal tear, 3rd & 4th degree	5000 p	**11**	Corridor patients	1538 p	**24**	Information	3000 p
2	Five-year survival rate for colon cancer, per health region	5000 p	**12**	Discharge summary sent within 7 days	1538 p	**25**	Nursing staff	3000 p
3	Five-year survival rate for rectal cancer, per health region	5000 p	**13**	Hip fracture operations performed within 48 hours	1538 p	**26**	Physicians	3000 p
4	Five-year survival rate for lung cancer, per health region	5000 p	**14**	Postponement of planned operations	1538 p	**27**	Organisation	3000 p
5	Five-year survival rate for breast cancer, per health region	5000 p	**15**	Thrombolysis treatments	1538 p	**28**	Relatives	3000 p
6	Five-year survival rate for prostate cancer, per health region	5000 p	**16**	Initiated treatment of colon cancer within 20 days	1538 p	**29**	Standard	3000 p
7	30-day survival after hospital admission for hip fracture	5000 p	**17**	Initiated treatment of lung cancer within 20 days	1538 p	**30**	Discharge	3000 p
8	30-day survival after hospital admission for myocardial infarction	5000 p	**18**	Initiated treatment of breast cancer within 20 days	1538 p	**31**	Coordination	3000 p
9	30-day survival after hospital admission for stroke	5000 p	**19**	Waiting time violations	1538 p	**32**	Patient Safety	3000 p
10	30-day survival after hospital admission for all admissions	5000 p	**20**	Registration of main diagnosis (Psychiatric care)	1538 p	**33**	Waiting time	3000 p
			21	Registration of main diagnosis (Addiction care)	1538 p			
			22	Discharge summary sent within 7 days (Psychiatric care)	1538 p			
			23	Discharge summary sent within 7 days (Addiction care)	1538 p			

Reporting quality	**30 % (1500 p)**	**30 % (461 p)**	**0 % (0 p)**
Minimum level	**30 % (1500 p)**	**30 % (461 p)**	**40 % (1200 p)**
Improvement	**20 % (1000 p)**	**20 % (308 p)**	**30 % (900 p)**
Performance	**20 % (1000 p)**	**20 % (308 p)**	**30 % (900 p)**

Total points awarded to each health region will be adjusted based on the region's size and case-mix

Source: Norwegian Directorate of Health

The payment reward is a fixed ceiling of approximately 500 million kroner. This means that each year the rewards are redistributed between the RHAs depending on their performance levels and improvement relative to the other RHAs. Due to a time lag in the reporting and quality control of the performance for the quality indicators, the RHAs receive the remuneration two years after the activities on which the performance measurements are based are performed. This means for example that activities that were carried out in 2012 are rewarded financially through the P4P scheme in 2014.

There are no restrictions placed on how the remuneration is to be used. However, since the scheme is implemented to improve quality it is desirable that it is used for quality improvement. The scheme is also a settlement between the government and the RHAs and thus the incentives are targeted at this level. Nevertheless, the RHAs are free to redistribute the remuneration to the hospitals in their region, also based on their quality performance. The Norwegian Directorate of Health assists the RHAs in the redistribution, but the final decision on how and to what degree this is allocated to the hospitals lies with each RHA.

During the trial period several adjustments may take place. In particular, new quality indicators may be added to the set, in order to represent a broader aspect of diseases and services provided. For example, for 2015 four new process quality indicators within the field of psychiatric health care and addiction treatment were added to the set. The remuneration amount is also revised each year. For 2015 it was increased by 2.6 %.

Below is a short description of how the points each RHA obtains for their performance are translated into a monetary reward (Table 1).

Table 1.Description of RHA reward calculation

Equation (1) shows that the RHA's financial reward from QBF is a product of the number of points and the monetary value per point.

$$(1) Income_{RHA} = Monetary\ value\ per\ point\ \times Points\ for\ disbursement_{RHA}$$

The monetary value per point is calculated by dividing the total remuneration (approx. NOK 500 million) by the total number of points in the model (100 000 points).

$$(2)\ Monetary\ value\ per\ point = \frac{Remuneration}{Total\ points}$$

The number of points used to determine the financial reward for each RHA is adjusted for by using a normalization factor.

$$(3)\ Points\ for\ disbursement\ _{RHA} = Normalization\ factor\ \times Weighted\ points_{RHA}$$

The normalization factor is obtained by dividing the total number of points in the model by the number of weighted points in the model for each year.

$$(4)\ Normalization\ factor = \frac{Total\ points\ (100\ 000)}{\sum Weighted\ points}$$

The weighted points are the points each RHA obtain for their performance adjusted for the number of patients and case mix in each region which is determined by an allocation key.

$$(5) Weighted\ points_{RHA} = Allocation\ key_{RHA} \times \sum Points\ for\ performance_{RHA}$$

Source: Norwegian Directorate of Health

Table 2 provides an example of how the RHAs income from QBF for 2015 is calculated. The income for each RHA is then in table 3 compared with how the budget would be distributed, if quality performance was not taken into account. The South East region is the largest region; however, they experience a 7.7 per cent loss in income due to poorer performance compared to the other regions.

Table 2. Income from QBF for each RHA in 2015 in NOK

RHA	Points	Weighting points using allocation key[1]	Weighted points	Multiplying weighted points with normalization factor[2]	Points for disbursement	Multiplying points with monetary value	Income Kroner
South-East	21 789	21 789*0,539	11 765	11 765*4,218	49 629	49 629*5098	253 028 753
West	25 693	25 693*0,189	4 870	4 870*4,218	20 543	20 543*5098	104 737 619
Central	26 193	26 193*0,143	3 756	3 756*4,218	15 844	15 844*5098	80 781 971
North	26 078	26 078*0,127	3 315	3 315*4,218	13 984	13 984*5098	71 296 657
Total	**99 754**		**23 706**		**100 000**		**509 845 000**

1. The allocation key is the national key for distributing the block grant budget.
2. Normalization factor is obtained by dividing the total number of points in the model by the number of weighted points in the model for each year.

Source: Norwegian Directorate of Health

Table 3. Comparison of the income effect for each RHA in 2015 in NOK

RHA	Block grants for 2015	Income from QBF 2015	Total QBF income distributed as block grants for 2015	Difference Kroner	Difference Percent
South-East	59 330 711 000	253 028 753	274 216 564	-21 187 811	-7.7%
West	17 980 005 000	104 737 619	96 800 628	7 936 991	8.2%
Central	13 592 624 000	80 781 971	73 179 876	7 602 096	10.4%
North	12 193 621 000	71 296 657	65 647 933	5 648 724	8.6%
Total	103 096 961 000	**509 845 000**	**509 845 000**		

Source: Norwegian Directorate of Health

4. Implementation of payment reform

The Ministry of Health issued, early in 2013, an assignment to the Directorate of Health to develop a pay for performance scheme. The Directorate of Health included relevant stakeholders in the development process. A reference group was established. The group was given the opportunity to give feedback on the design of the scheme and discuss which quality indicators were suitable to include prior to the implementation. The relevant stakeholders were representatives from the RHAs, The Norwegian Medical Association, The Norwegian Nurses Organisation and the Norwegian Federation of Organizations of

Disabled People. By consulting these representatives in this process it ensured that the scheme gained legitimacy and there has been little opposition to the payment scheme since its implementation. When changes to the model are to be carried out during the trial period, the RHAs will be consulted before implementation.

In addition there has been a current dialog between RHAs and The Directorate of Health during the first two years of operation, where the directorate has assisted in the implementation.

5. Assessing payment reform

Since the scheme is a pilot the government has requested an evaluation to be carried out and completed by the spring of 2016. The results of the evaluation will aid the government in determining whether the scheme will be implemented on a more permanent basis after 2016. If it is to be continued the results from the evaluation will contribute to an adjustment of the scheme.

The design of the evaluation is currently in process and will be conducted by an independent third party. The main objective is to evaluate the scheme's effect in relation to its goal; to increase quality and patient safety delivered to patients in the secondary care sector. Due to a short evaluation period and limited data measurements the evaluation will focus on the qualitative aspects. A key aim of the evaluation will be to investigate how the performance results and financial rewards are used in each RHA and to what extent they have implemented initiatives to increase their quality performance as a result of the scheme.

Secondly, it will be important to evaluate whether the scheme has been designed expediently, in order to motivate the providers to increase their performance. This will include an assessment of the size and salience of the financial incentives and the efficiency of the performance criteria in rewarding high and improved performance. The evaluation will also examine the extent to which the reporting quality criterion has increased the quality of data reporting and measurement of the included indicators.

Lastly, the evaluation will investigate whether there is any evidence of teaching to the test where the included quality indicators are prioritised at the expense of other quality indicators or, on the other hand, whether there exists any positive spill over effects.

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