NHS England

01| BITE-SIZE GUIDE TO PATIENT INSIGHT

THE NATIONAL PATIENT REPORTED OUTCOME MEASURES (PROMS) PROGRAMME

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What are PROMs?

The national Patient Reported Outcome Measures (PROMs) programme began in 2009. The purpose of PROMs is to collect information, from patients themselves, about how well the health service is treating them. PROMs allow us to understand the difference that healthcare interventions make to people's quality of life.

Four surgical procedures were initially chosen to be included in the national PROMs programme, mandated in the NHS Outcomes Framework:

- Total hip replacement
- Total knee replacement
- Varicose veins
- Groin hernia surgery

Following a **consultation** published in October 2017, the PROMs for varicose veins and groin hernia surgery are **being phased out**.

The aim of this guide is to highlight PROMs related resources available, and explain to provider trusts & clinical commissioning groups (CCGs) how national PROMs data can be used to monitor performance, understand and investigate variation, and inform commissioning decisions and conversations with provider trusts.

Each patient, funded by the National Health Service for one of the treatments listed above, is invited to give feedback on the outcomes of their surgery by responding to questionnaires before and after the procedure. This allows us to understand how effective these treatments have been, not from a clinical perspective but from the perspective of the patient themselves.

PROMs are distinct from the Patient Experience Survey programme in that they don't ask patients about their experience of care – e.g. were you treated with dignity? – but about their view on the outcomes of surgery, i.e. "are you feeling better?"; "has your quality of life improved?"

By comparing answers before and after surgery, we can assess the "health gain" (improvement/deterioration) as reported by patients. This can be used to compare hospitals and also to explore differences in health gains across demographic groups or alternative surgical techniques.

Why do we collect national PROMs data?

We collect PROMs as they are a unique source of insight for both provider trusts and CCGs in that they shine a light on variation in the outcomes of surgery, as reported by patients themselves. Listening to patients in this way supports **NHS England's Five Year Forward View** objective of improving patient empowerment.

Using the national PROMs data can enable change by:

- **Provider trusts** using national PROMs data to identify specific areas in which patients feel they struggle/excel during their recovery. This can help trusts to review their care pathway, e.g. to better inform what aftercare programs they might consider offering.
- **CCGs** and provider trusts using national PROMs data to identify and share good practice, encouraging service improvements to benefit patients.

- Informing the national **Best Practice Tariff (BPT)** for hip and knee replacements. Provider trusts with poor patient outcomes in these surgical areas currently do not receive the full BPT payment.
- Publishing the results ensures transparency and allows users of services to choose, where appropriate, where they want to be treated

What measures are used?

In choosing to participate in the national PROMs programme, patients complete questionnaires asking about their quality of life before and after surgery. PROMs questionnaires include two main types of measures - generic or condition-specific.

Generic

All national PROMs questionnaires include a section called the **EuroQol 5 Dimension (EQ5D-3L™)**. Patients' answers to the EQ5D-3L™ questions can be translated into a numeric measure of quality of life. Responses to the EQ5D element of the PROMs questionnaires can be used to compare outcomes across conditions.

Condition Specific

In addition, the PROMs questionnaires include condition specific measures, which are:

- Oxford Hip Score (OHS) – This is the condition specific measure for hip procedures.
- Oxford Knee Score (OKS) – This is the condition specific measure for knee procedures.
- Aberdeen Varicose Vein – This is the condition specific measure for varicose vein procedures.

Condition-specific questionnaires contain more detailed questions which allow for more in-depth analysis of patient outcomes.

Please note: There is no condition specific measure for groin hernia.

Where can you find the data?

National PROMs data is published by **NHS Digital** (formerly the Health and Social Care Information Centre). Published data includes both provisional data (ongoing updates are made as more data is received throughout the financial year) and finalised publications – published approximately 15 months after the year of interest, e.g. in August 2016, finalised data for 2014/15 was published. Frequently asked questions (FAQs) and further PROMs information can be found on the **NHS England website** and **MyNHS**.

What can the data tell you about trust-level outcomes?

You can use PROMs data to investigate outcomes reported by patients at individual trusts and compare these outcomes across several trusts. This data can also be used to identify variation in outcomes between a trust and the national average. Acknowledging that different trusts will have different populations, the Department of Health, NHS England and NHS Digital have developed and implemented a **case-mix adjustment**[1]. This takes into account the fact that we can predict some patients will experience better or worse outcomes after surgery solely due to their medical history, age, ethnicity, etc. Consequently, when a provider trust is identified as amongst the best, or amongst the worst, this means that patients' outcomes at that provider trust, for any of these four procedures, are better or worse than expected, given the provider trust's patient population.

1 Comparing unadjusted average scores between providers can be misleading as the patient profiles that one provider treats may be different to the patient profile at another provider. Case-mix adjustment is required to adjust for these different profiles. It takes account of variations in patient characteristics and other factors beyond the direct control of providers. This enables more accurate comparisons between the average scores of different providers.

How is the data presented?

We are aware that the national PROMs data can be difficult to interpret. Therefore, in this section, we would like to present, in some detail, what you will find when looking at PROMs data on the **NHS Digital website** and how to interpret it. We will do this, using examples of four provider trusts – trusts A, B, C and D. The trust level data for these trusts is presented in **Table 1** in exactly the same way as you will find it in the Score Comparison tool available on the NHS Digital website. The Score Comparison tool also includes a visual representation of the data, which is presented in figure 1 further below.

Table 1:

i	ii	iii	iv	v	vi	vii	viii	ix	x
Organisation code	Organisation name	Modelled records	Adjusted average health gain	England average	Lower 95% control limit	Upper 95% control limit	Lower 99.8% control limit	Upper 99.8% control limit	Significance
KT315	Trust A	536	7.380	5.800	5.053	6.547	4.622	6.978	Upper 99.8%
MV436	Trust B	240	6.230	5.800	4.684	6.916	4.040	7.560	
FRR	Trust C	268	3.070	5.800	4.744	6.856	4.134	7.466	Lower 95%
F1H	Trust D	158	0.890	5.800	4.424	7.176	3.631	7.969	Lower 99.8%

The terminology used in the table is explained below:

i **Organisation code** – An organisation code is a unique code that identifies an organisation acting as a health care provider of these four surgeries, and can be either NHS or independent. If an independent trust, it is only the NHS funded work to be submitted to the national PROMs programme.

ii. **Organisation name** – This is the name of the organisation.

iii. **Modelled records** – Questionnaires that have been successfully linked to records of hospital inpatient activity in the Hospital Episode Statistics. This is a proxy for trust size.

iv. **Adjusted average health gain** – This is a trust-level average of the difference between case-mix adjusted patients' health status before and after surgery. This is the trust's outcome measure.

v. **England average** – This is the case-mix adjusted average across all providers in England.

vi. **Lower 95% control limit** – The provider in question is considered an "alert", i.e. a potential under performer if the adjusted average health gain is below this number. These trusts are below the national average.

vii. **Upper 95% control limit** – If the adjusted average health gain is above this number; the provider is considered a positive "alert" i.e. an indication of being a potential high performer. These trusts are above the national average outcome.

viii. **Lower 99.8% control limit** – If the adjusted average health gain is below this number, the provider is considered an "alarm", i.e. a trust with significantly worse patient outcomes than expected. These trusts are among those providing the worst outcomes.

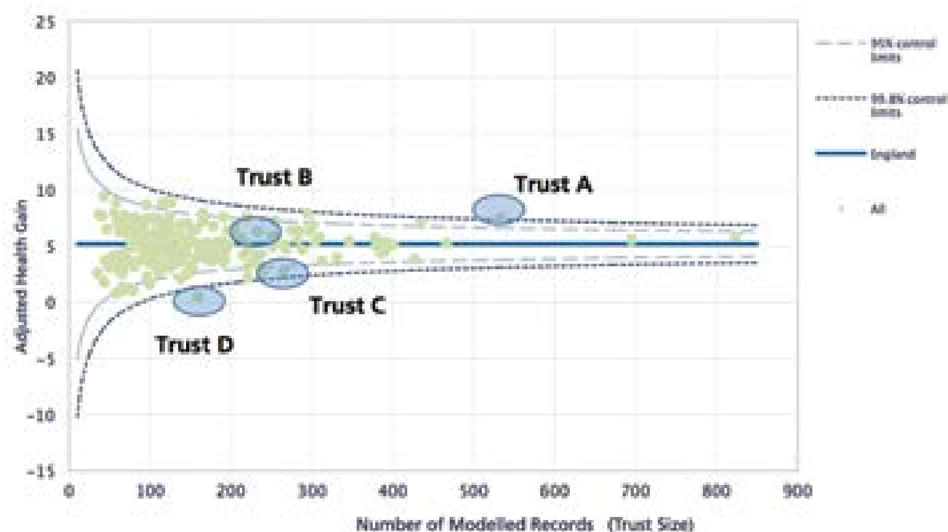
ix. **Upper 99.8% control limit** – If the adjusted average health gain is above this number; the trust is considered a positive "alarm", i.e. a trust with significantly better patient outcomes than expected. These trusts are among those providing the best outcomes.

x. **Significance** – This summarises whether the provider falls over or under any of the indicated control limits.

Provider trust level PROMs data is also commonly represented visually, allowing users to see which provider trusts are performing better/worse than expected. **Figure 1** shows the adjusted health gain achieved by the patients at all trusts (calculated from the questionnaire responses) (y axis) relative to the number of modelled records (PROMs questionnaires successfully returned) (x axis).

The chart reflects the control limits discussed above, graphically, so that any provider trusts with significantly better or worse results than average can be easily identified, as we have shown by highlighting the four trusts from our earlier example. This type of chart is called a **funnel plot**.

Figure 1: Screenshot of Funnel Plot



The above organisations used in this example would be interpreted accordingly.

Table 2: Interpretation of trust outcomes

Organisation name	Significance	Interpretation
Trust A	Upper 99.8%	Among the best outcomes
Trust B		Average outcomes
Trust C	Lower 95%	Below average outcomes
Trust D	Lower 99.8%	Among the worst outcomes

Please Note: All interpretations are relative to England's average for that year.

If your CCG had contracts with each of these four provider trusts, you might consider the following:

- **How would the CCG work with Trust A?**
  Trust A's national PROMs outputs are significantly above average. These are among the best providers nationally. You may wish to discuss with this trust what aspects or practices lead them to be among the best and consider sharing this with your other trusts and CCG's.

- **How would the CCG work with Trust B?**
  Trust B is performing at an average level but there may be good practice to be gained from Trust A. There is still room for improvement.

- **How would the CCG work with Trust C?**
  Trust C national PROMs outputs are below average. Consider if this is a sustained position over consecutive years of PROMs data. There may be good practice to be gained from Trust A or B which could help improve these outcomes.

- **How would the CCG work with Trust D?**
  Trust D PROMs outputs are significantly below average. Consider if this is a sustained position over consecutive years of PROMs data. A trust in this category should be investigated further to understand what is happening and what can be done to improve the situation. There may be good practice to be gained from Trust A or B which could help improve these outcomes.

If you find you are a provider trust who needs to do further investigations, the following section outlines what to do next and recommended areas to look.

What can the data tell you about patient-level outcomes?

Alongside trust averages, NHS Digital also produces tables of anonymised patient-level data showing patient responses to individual questions, before and after surgery.

Analysing this data allows provider trusts to investigate whether there are any patterns in their patients' outcomes. For instance, it is possible to investigate whether the trust's patients are more or less likely to report a number of post-operative complications, such as infections, problems with their wound healing or allergic reactions; or whether their outcomes fall short of expectation on any particular aspect of their quality of life, such as pain or mobility. In addition, through analysis of patient-level data, trusts can identify groups of patients with better or worse outcomes, e.g. by age, gender or pre-operative health.

An example of how a provider trust used this kind of analysis to improve their patients' results can be found here: **Use of PROMs Case Study**

Provider trusts can also request access to their own patient-identifiable data from NHS Digital. This enables case-by-case analysis of good or bad outcomes. For instance, trusts may want to investigate whether better or worse outcomes for individual patients appear to be correlated to relevant factors, such as surgical technique or prosthesis used, different consultants or use of different operating theatres.

Links to more information about the national PROMs programme

NHS England - PROMs

NHS Digital - PROMs Methodology

NHS Digital Data Tutorial

The King's Fund - Getting the Most Out of PROMs

Other PROMs resources

This short guide has focused on the national PROMs. It is worth noting that a number of pilot studies have been conducted in cancer, such as **cervical cancer**, **ovarian cancer**, **womb cancer** and **national colorectal PROM**. There are also other pilot PROMs currently in development, being trialled or awaiting analysis, e.g. **musculoskeletal**, **major trauma**, **coronary revascularisation**, and renal replacement.

In September 2017, new procurement arrangements were announced, changing from a supplier framework to a **supplier accreditation process**.

CONTACT US

This guide is part of a short series intended to help healthcare providers and commissioners to make greater use of patient insight: **http://www.england.nhs.uk/ourwork/insight/insight-resources**
The work is overseen by the Insight & Feedback Team.

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