

# Value Based Healthcare analysis of joint replacement surgery for primary hip osteoarthritis

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## Who are we?

- King's Health Partners is an Academic Health Sciences Centre (AHSCs) in South London. Based on breaking down barriers and increasing cooperation and focus, AHSCs seek to combine basic and translational health research, clinical care and education to create world-leading improvements in healthcare. We serve a population of eight million across South London and south east England. Our goal is to deliver **transformational health improvements** that are **patient-centred, population-based and sustainable**.

## Why take on a Value Based Healthcare transformation approach?

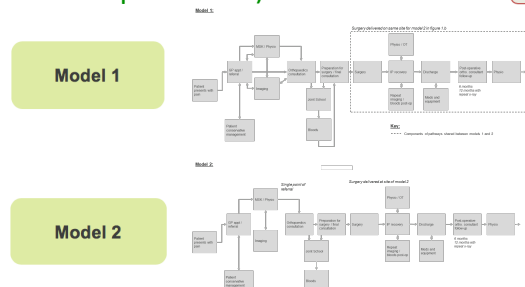
- The Value Based Healthcare (VBHC) programme is focused on supporting our partner organisations to deliver excellent and consistent health outcomes whilst **protecting our stretched NHS resources**.
- VBHC prioritises patient **experience** and **improved health**, teaches staff how to identify best value and empowers them to deliver the **best possible care** to their patients resulting in improved work satisfaction.
- It also ensures that commissioners of care are getting the **best results for the money available**.

## Calculating value: understanding outcomes that matter to patients and carers and clinically-meaningful cost information

- 1 Understand pathway**  
Elective hip replacement surgery pathway for primary osteoarthritis is clearly defined across two sites, with pathway specific outcome measures. The aim is to understand the value (*how well this pathway is doing*) across the complete pathway of care.
- 2 Understand outcomes**  
Patient reported outcomes measures (PROMS) mandated by the NHS (Oxford Hip Score, EQ-5D, EQ-VAS) were extracted with a focus on understanding, measuring and sharing outcomes that matter to patients and carers. Ethics approval to use patient data was attained.
- 3 Meaningful cost info**  
The cost of a service user moving through the hip replacement pathway was calculated. This was used to develop clinically-meaningful cost information for delivering outcomes. This information will inform changes that can be made to the pathway to improve outcomes, efficiency, and ensure better value.

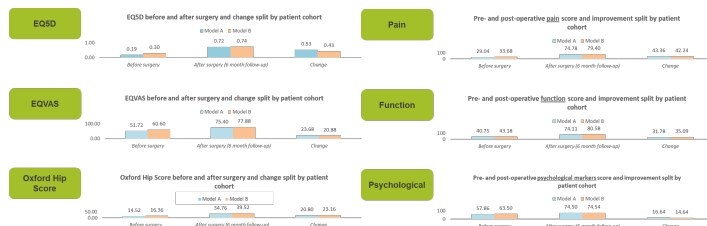
## Understand pathway of care by condition (rather than procedure)

Primary osteoarthritis (soft tissue injury): routine MSK

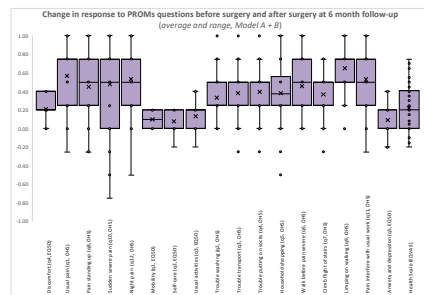


**VALUE = OUTCOMES / COSTS**

- 100% survival and no significant differences in PROMS,
- Improvements in EQ-5D, EQ-VAS and OHS exceeded the national expected average
- Improvements were also noted when outcomes were rearranged
- Multiple quality reviews required to ensure costs were accurate however outliers persisted
- Model 1 was leaner with lower costs and a higher margin.
- Model 1 was the higher value pathway.

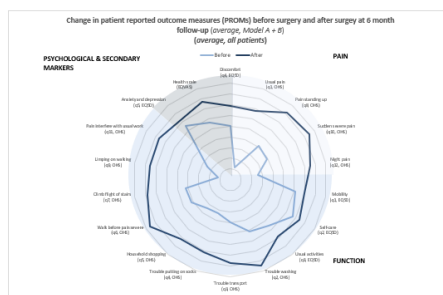


## Traditional PROMS vs patient-centred outcomes



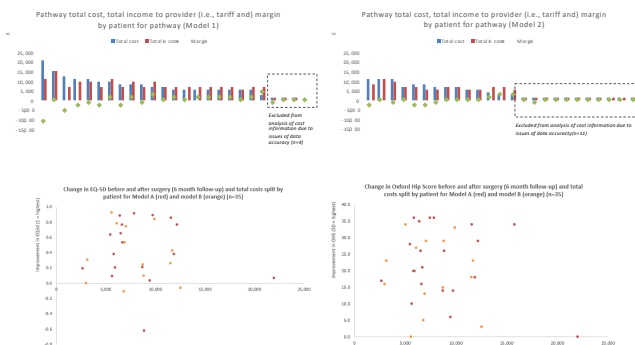
## Results

- Each pathway n=25; no significant difference between groups with regard to age, sex, number of comorbidities



## Discussion

The higher value of pathway 1 likely arose from the standardised nature of the Integrated Practice Unit (IPU) model characterised by a single entry point. This hastens the patient journey reducing the ill effect of protracted waits associated with clinical deterioration. This would reduce length of stay and is likely to aid recovery. Better communication amongst the multi-disciplinary team is a further advantage expediting diagnostic decision making and treatment processes. These factors all contribute to a reduction in the costs incurred.



## Conclusion

Understanding the value of pathways of care, is inherently difficult. However accurate clinical costing is a patient-centred issue with the potential to change the way healthcare is incentivised and funded in order to make it sustainable, equitable and effective. Accurate data capture is critical to achieving VBHC which has become an organisational priority and pathways of care are being modified to fit the higher value IPU model more closely.