

From little things big things grow...



ACORN

Arthroplasty Clinical Outcomes Registry

Juliette Proctor

On behalf of the Steering Committee, Arthroplasty Clinical Outcomes Registry NSW
ANZONA Conference, 13th Nov 2015

Acknowledgements

Steering Committee

- Ian Harris, Samuel Macdessi, Rob Molnar, Justine Naylor, Juliette Proctor, Richard Walker, Rami Sorial

Site Coordinators

- Susan Dietsch, Jarka Janotka, Juliette Proctor, Chris Saliba, Jennifer Smith, Andy Wong,

Registry Staff

- Shirley Cross, Michelle Jones, Tim Churches

Organisational Partners

- WORC, MCSU and SWSCS UNSW, IIAMR, SWSLHD, SESLHD, NBMLHD, SLHD, MNCLHD



ACORN

Arthroplasty Clinical Outcomes Registry

Background and Context

- International, local
- Joint replacement registries
- Patient reported outcomes



National Joint Registry
www.njrcentre.org.uk



Health & Social Care
Information Centre



CALIFORNIA
JOINT REPLACEMENT
REGISTRY



Aims

To establish routine, standardised measurement and reporting of patient-reported outcomes after hip and knee arthroplasty in Australia.

Make information available to patients, surgeons, and hospital departments to inform future decision-making to improve future outcomes of hip and knee arthroplasty.

First steps...

- Steering Committee
- Governance structure
- Minimum dataset
- Data collection, storage and dissemination protocols
- Ethics
- Reporting – annual, six monthly, ad hoc
- Audit and validation studies

Data Collection

Hospital: _____ State / Territory: _____



Date data collection commenced: ____/____/____

1. Demographic Information (label if available)

Name	Street Address	Suburb and Postcode
_____	_____	_____
Date of Birth	Sex	Hospital MRN
____/____/____	<input type="radio"/> Male <input type="radio"/> Female	_____
Telephone Number(s)	Height measured (m)	Weight measured (kg)
_____	_____	_____
Email Address:	_____	
Other Contact Person:	_____	
Name/Relationship/Telephone	_____	

Health Insurance for Surgery

- Public hospital insurance Private health insurance Self funded
 Other third party payer Workers' compensation insurance Other compensation payer
 DVA Other Unknown

Preferred Language

How well do you speak English? (tick only one) Very well Well Not very well Not at all

In what language do you prefer your medical care? English Other (please specify)

Highest Year of School Completed

Year 12 Year 11 Year 10 Year 9 Year 8 or below No schooling Unknown

Highest Non-School Qualification

Trade Certificate Advanced Diploma/Diploma Graduate Diploma/Graduate Certificate
 Bachelor Degree Postgraduate Degree None Unknown

2. Expectations after Surgery

Level of Pain 6-months after Surgery

What are your expectations of your **knee/hip pain** six months after your surgery?

No pain Slight pain Moderate pain Severe pain

Functional Ability 6-months after Surgery

What are your expectations of your **functional ability** six months after your surgery?

No limitation Some limitation Moderate limitation Severe limitation

3. Medical History

Previous hip or knee replacement – please tick all that apply to you

Only right hip Only left hip Both hips I have never had any hip replaced before
 Only right knee Only left knee Both knees I have never had any knee replaced before

Low back problems or other lower limb joint problems

I have low back problems that interfere with my mobility I do not have low back problems
 I have other joint problems in my leg(s) that interfere with my mobility I do not have other joint problems

PLEASE CONTINUE THIS SECTION OVER THE PAGE...

Have you ever been told by a Doctor you have any of the following conditions

Heart disease, such as AF, high cholesterol, other	Yes / No	If yes, do you take daily medication	Yes / No
High blood pressure	Yes / No	If yes, do you take daily medication	Yes / No
Diabetes	Yes / No	If yes, do you take daily medication	Yes / No
GIT or Stomach Condition	Yes / No	If yes, do you take daily medication	Yes / No
Lung Condition	Yes / No	If yes, do you take daily medication	Yes / No
Kidney Condition	Yes / No	If yes, do you take daily medication	Yes / No
Liver Condition or Disease	Yes / No	If yes, do you take daily medication	Yes / No
Neurological Condition or Disease	Yes / No	If yes, do you take daily medication	Yes / No
Anxiety or Depression	Yes / No	If yes, do you take daily medication	Yes / No
OR <input type="radio"/> I have never been told by a Doctor I have any of the conditions listed above			

Thank you. Section 4 below is to be completed by hospital staff.

4. Surgical and Acute Admission Details

Date of Admission	Date of Surgery	ASA Score
____/____/____	____/____/____	<input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5
Joint to be Replaced during Index Admission		Surgeon Name
<input type="radio"/> Right hip <input type="radio"/> Left hip <input type="radio"/> Both hips <input type="radio"/> Right knee <input type="radio"/> Left knee <input type="radio"/> Both knees		_____
Surgery Type and Reason		
<input type="radio"/> Primary joint replacement <input type="radio"/> OA <input type="radio"/> RA <input type="radio"/> DOH <input type="radio"/> Other inflammatory arthritis <input type="radio"/> Osteonecrosis/AVN <input type="radio"/> Tumour <input type="radio"/> Other (specify)		<input type="radio"/> Revision joint replacement <input type="radio"/> Loosening <input type="radio"/> Lysis <input type="radio"/> Dislocation <input type="radio"/> Implant breakage <input type="radio"/> Infection <input type="radio"/> Fracture <input type="radio"/> Other (specify)
ICU / HDU Admission		
<input type="radio"/> Yes, admitted to a high care bed If yes, <input type="radio"/> Planned admission OR <input type="radio"/> Unplanned admission <input type="radio"/> Not admitted to a high care bed		
Blood Transfusion		
<input type="radio"/> No <input type="radio"/> Yes If yes, <input type="radio"/> Donor OR <input type="radio"/> Autologous Number of units: _____		
Complications During Index Admission		
<input type="radio"/> Yes (select as many from the list below as apply) <input type="radio"/> Bladder infection <input type="radio"/> Bladder retention <input type="radio"/> CVS (stroke, MI, arrhythmia) <input type="radio"/> Delirium <input type="radio"/> Dislocation <input type="radio"/> DVT <input type="radio"/> Fracture <input type="radio"/> Nerve injury <input type="radio"/> PE <input type="radio"/> Reoperation <input type="radio"/> Respiratory infection <input type="radio"/> Surgical Site Infection (SSI) <input type="radio"/> Other (specify)		<input type="radio"/> No complications
Discharge Destination	Date of Discharge (from ward) ____/____/____	
<input type="radio"/> Usual residence / residence of relative/friend <input type="radio"/> Inpatient rehabilitation (other hospital) <input type="radio"/> Nursing home (if not usual place of residence) <input type="radio"/> Other (specify)	<input type="radio"/> Inpatient rehabilitation (same hospital) <input type="radio"/> Hostel (if not usual place of residence) <input type="radio"/> Another acute hospital	

Site Coordinator Checklist

Participant Information Sheet provided? Yes No Oxford Score completed and attached Yes No
 Has the participant opted-out? Yes No EQ5D/EQVAS completed and attached Yes No

Outcome Reporting

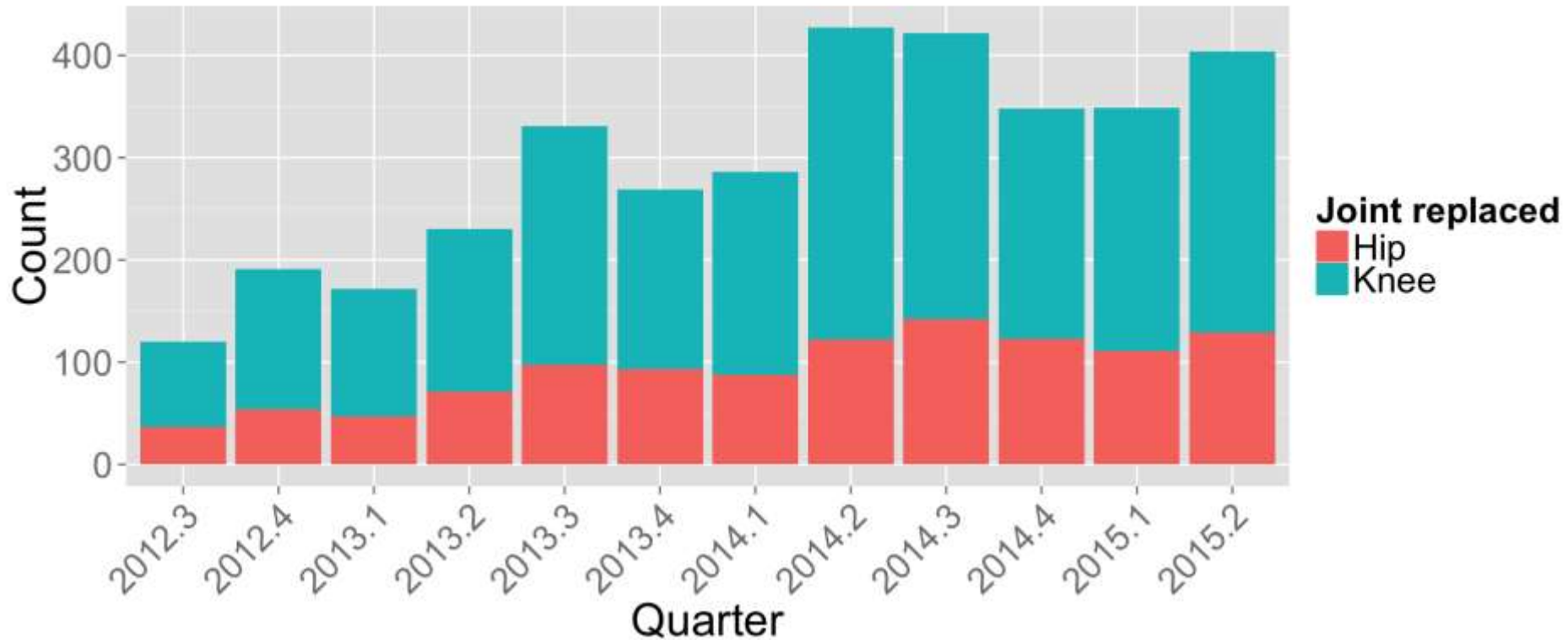


2014 ANNUAL REPORT

**ARTHROPLASTY CLINICAL
OUTCOMES REGISTRY**

1 JANUARY 2014 TO 31 DECEMBER 2014

Growth in ACORN data collection



Age distribution, Joint Replacements, July 2012 to June 2015

Joint replaced	Sex	Mean age	5 th percentile	95 th percentile
Hip	Male	65.2	45.3	82.1
Hip	Female	68.2	48.9	83.7

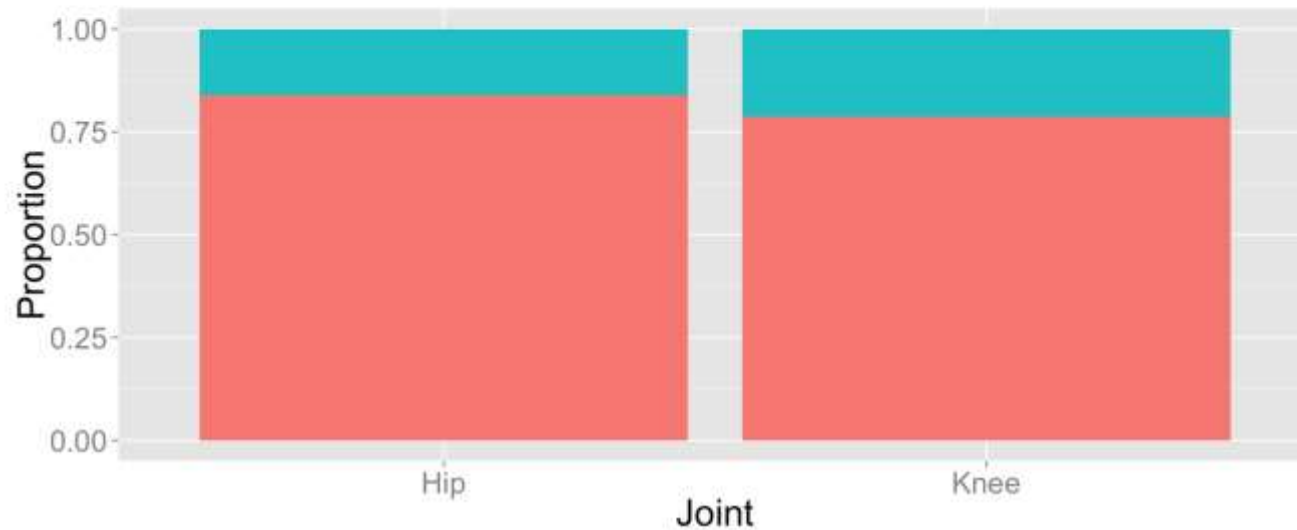
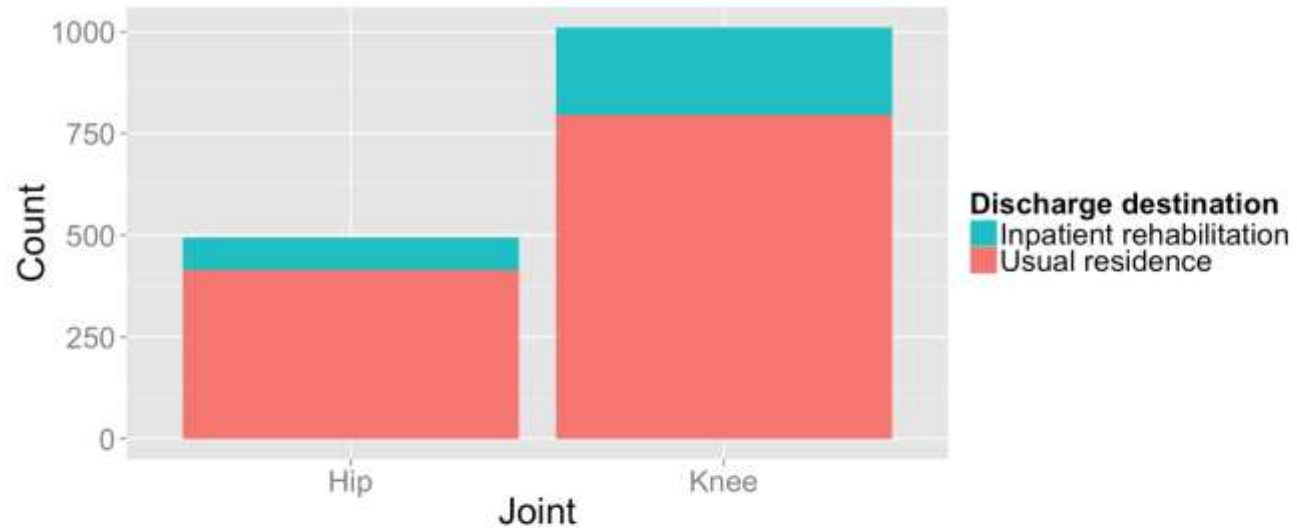
Joint replaced	Sex	Mean age	5 th percentile	95 th percentile
Knee	Male	68.8	52.2	82.8
knee	Female	68.9	52.9	83.1

BMI distribution, Joint Replacements, July 2012 to June 2015

Joint replaced	Sex	Mean BMI	5 th percentile	95 th percentile
Hip	Male	30.3	22.2	40.0
Hip	Female	29.9	20.2	42.2

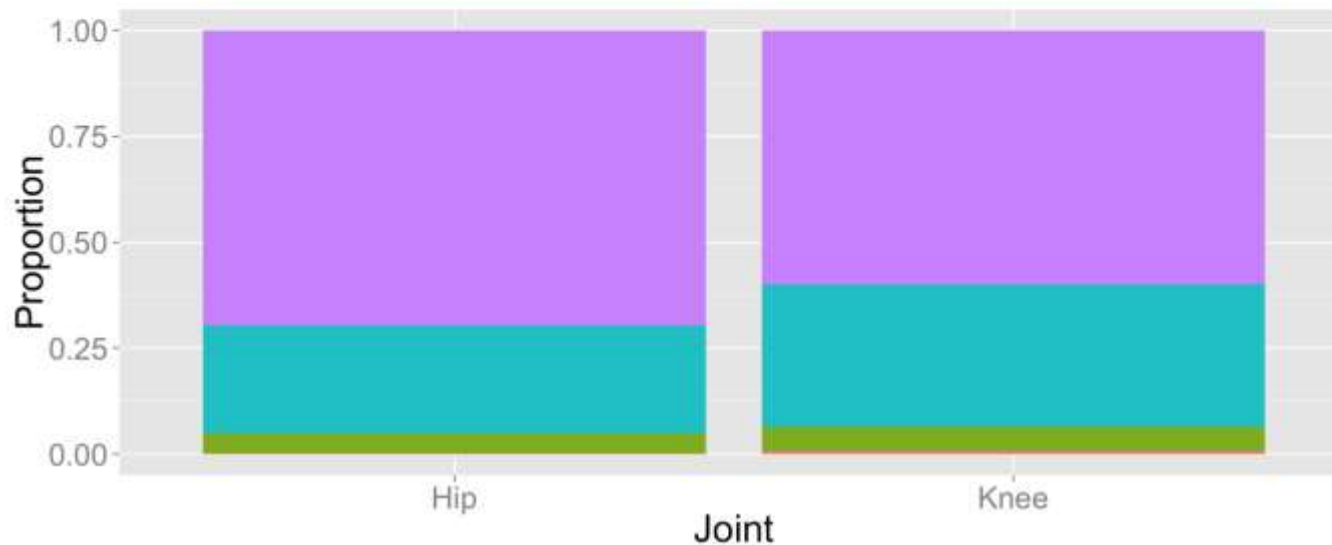
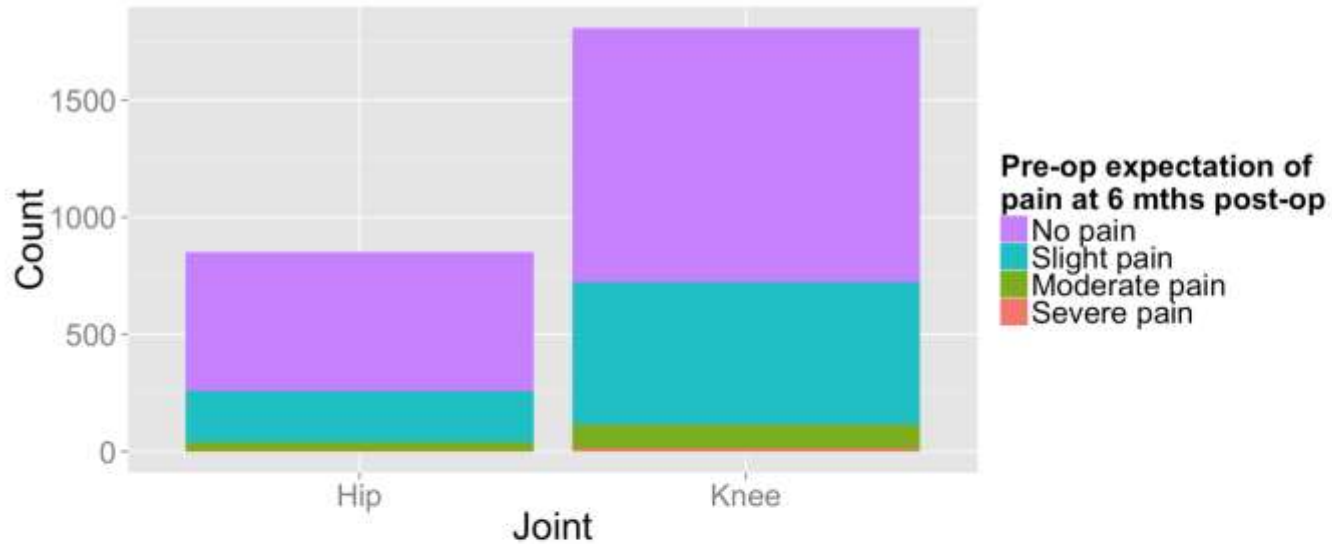
Joint replaced	Sex	Mean BMI	5 th percentile	95 th percentile
Knee	Male	32.1	24.0	43.6
Knee	Female	33.8	23.5	47.7

Discharge destination July 2014 to June 2015



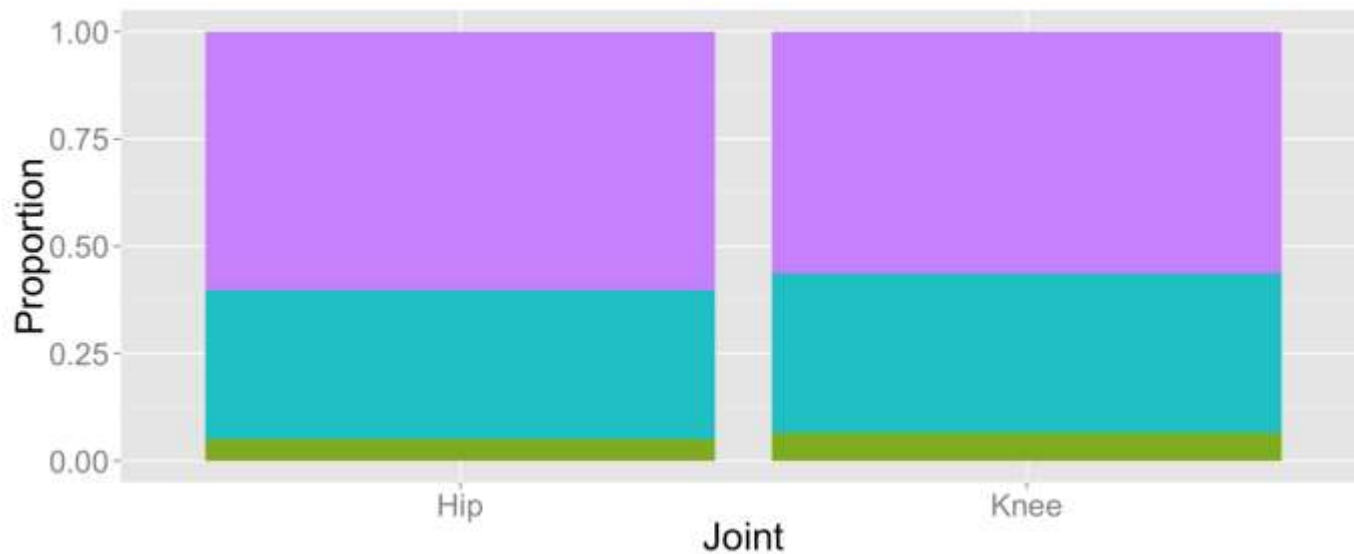
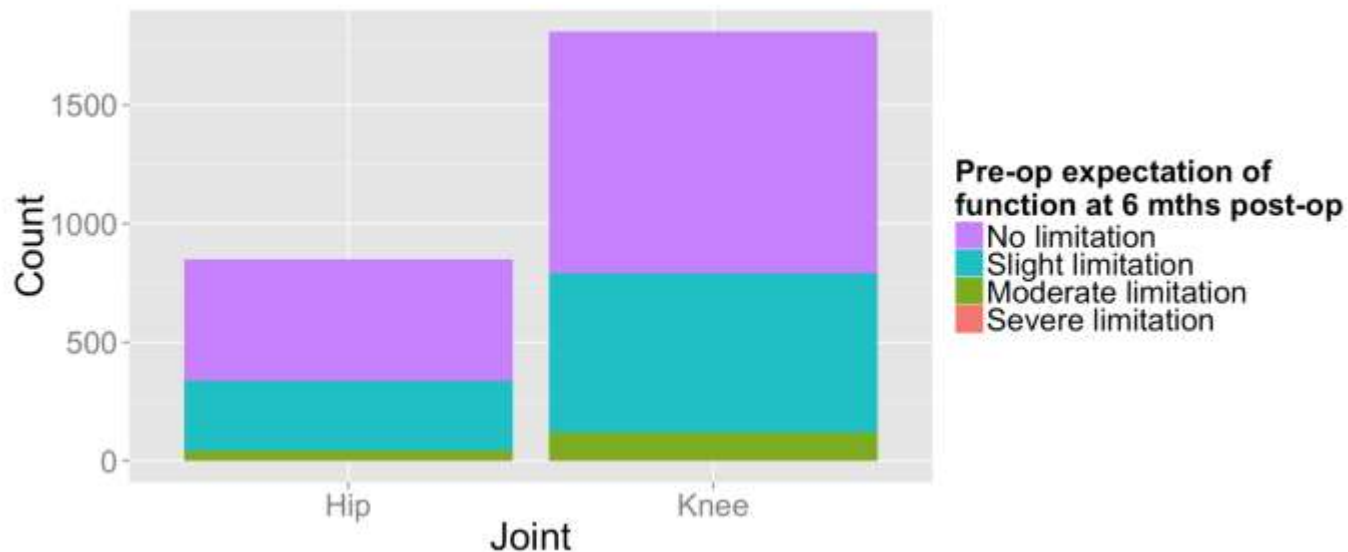
Pre-op expectation of pain at 6 mths post-op

July 2012 to June 2015

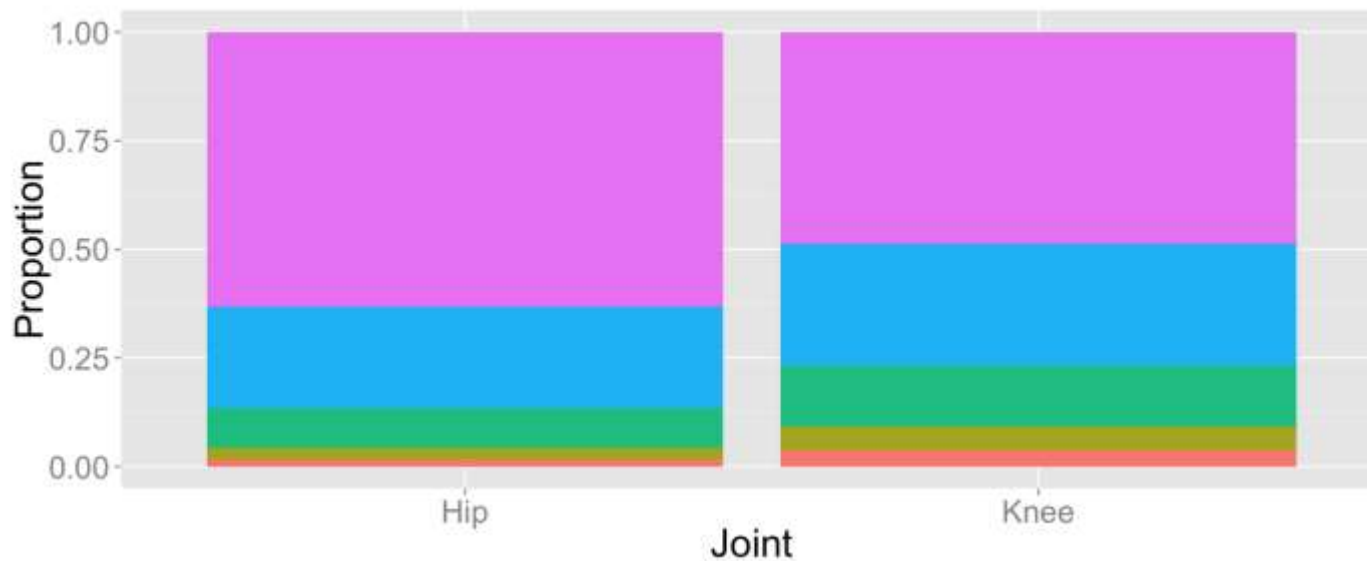
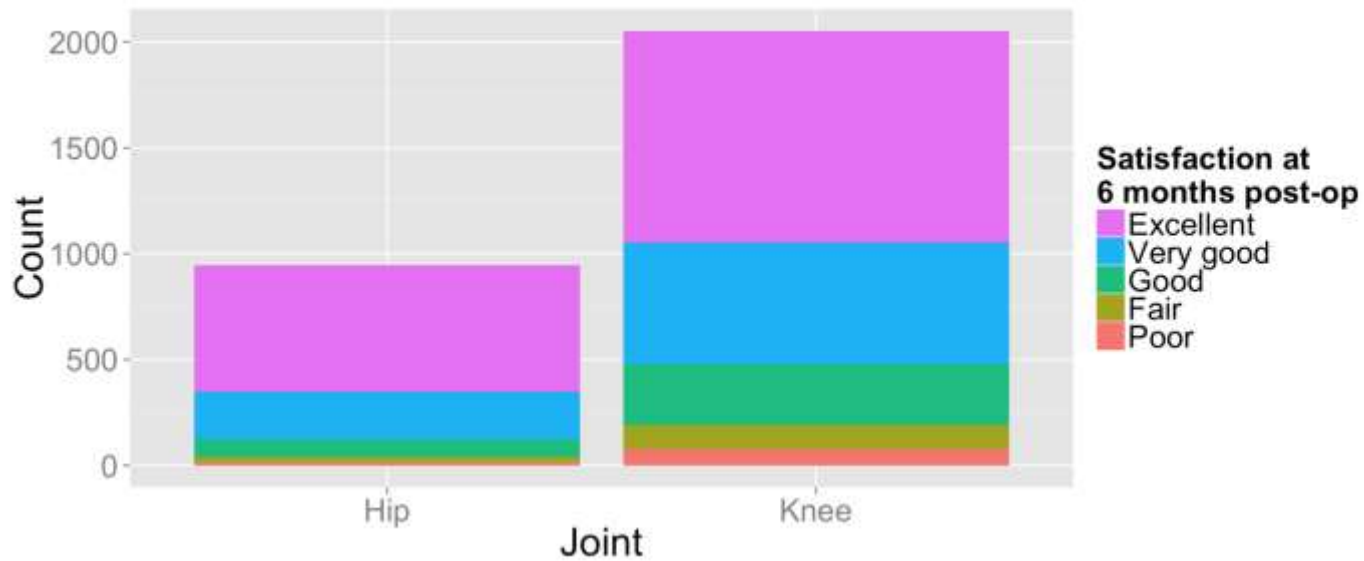


Pre-op expectation of function at 6 mths post-op

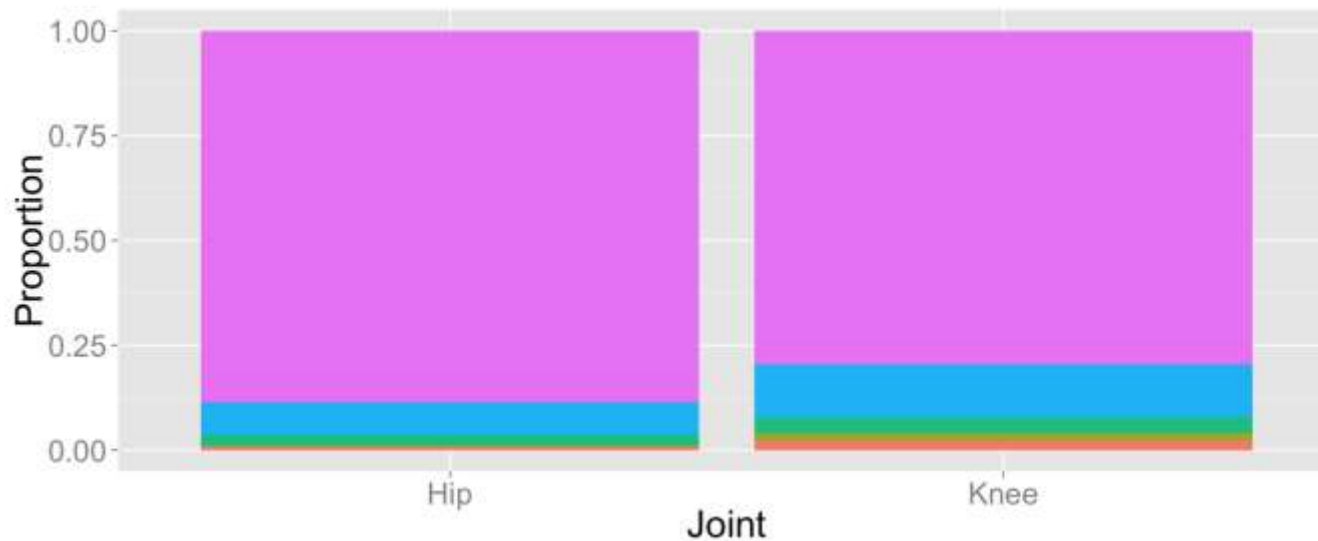
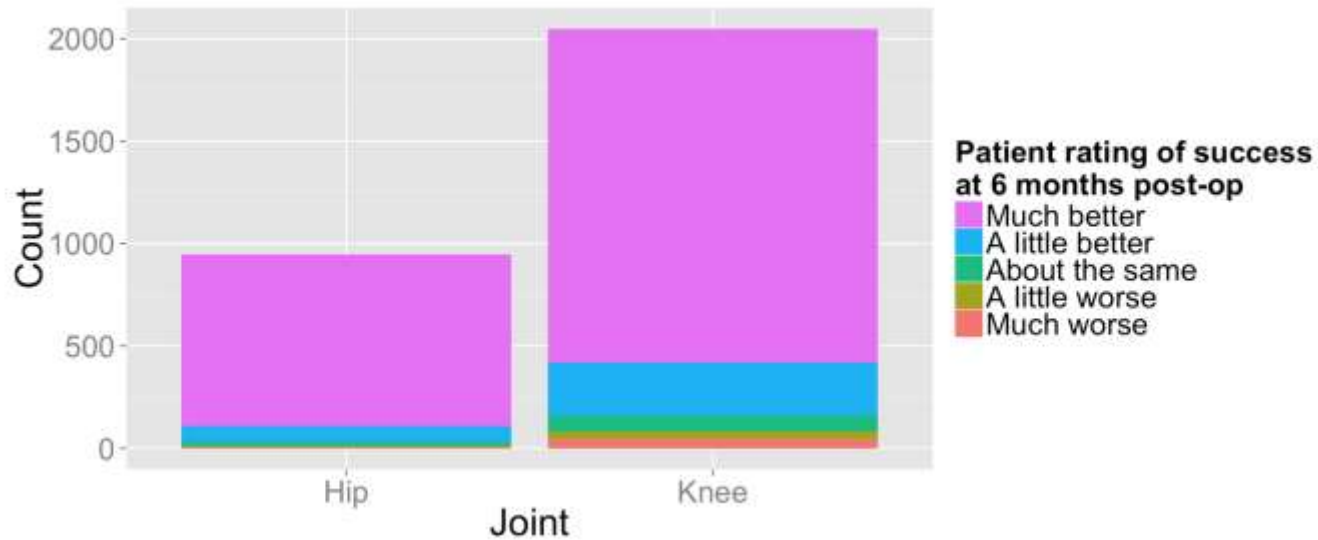
July 2012 to June 2015



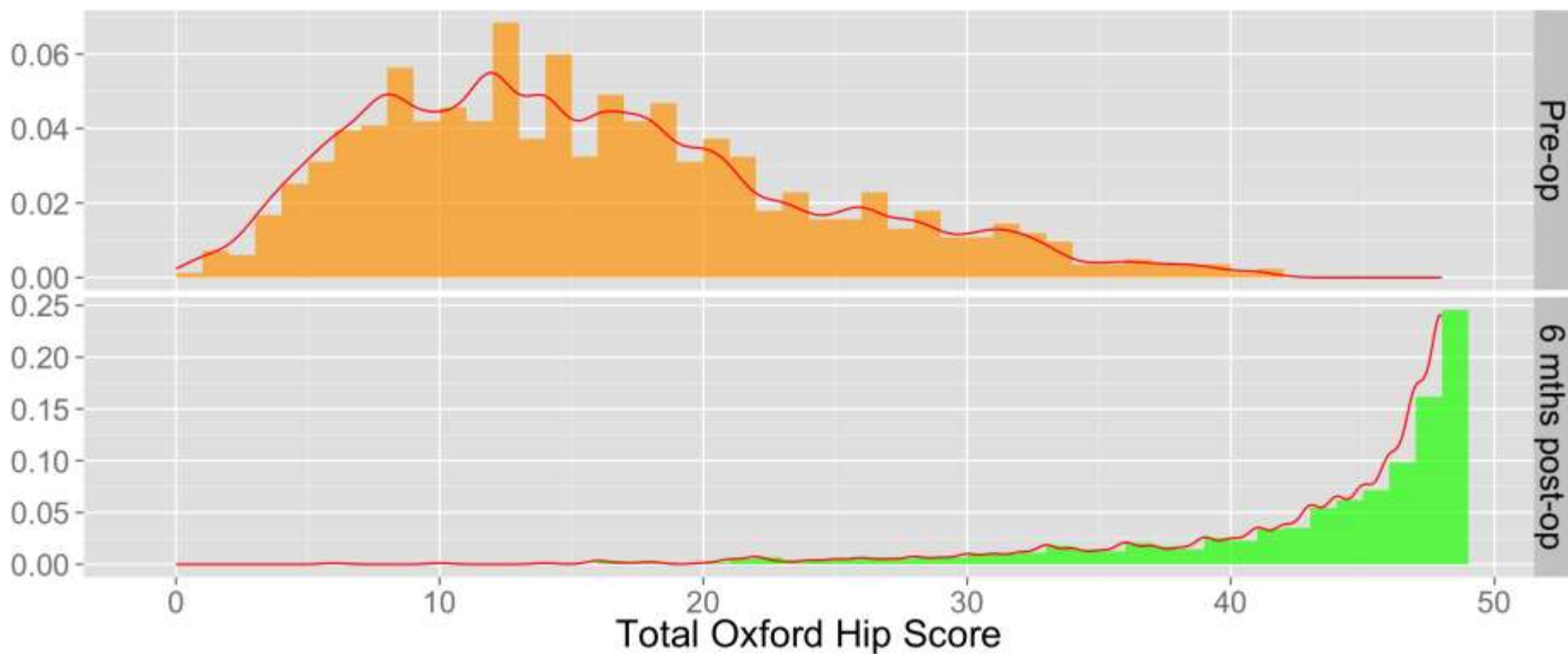
6 months post-op rating of satisfaction by the patient, July 2012 to June 2015



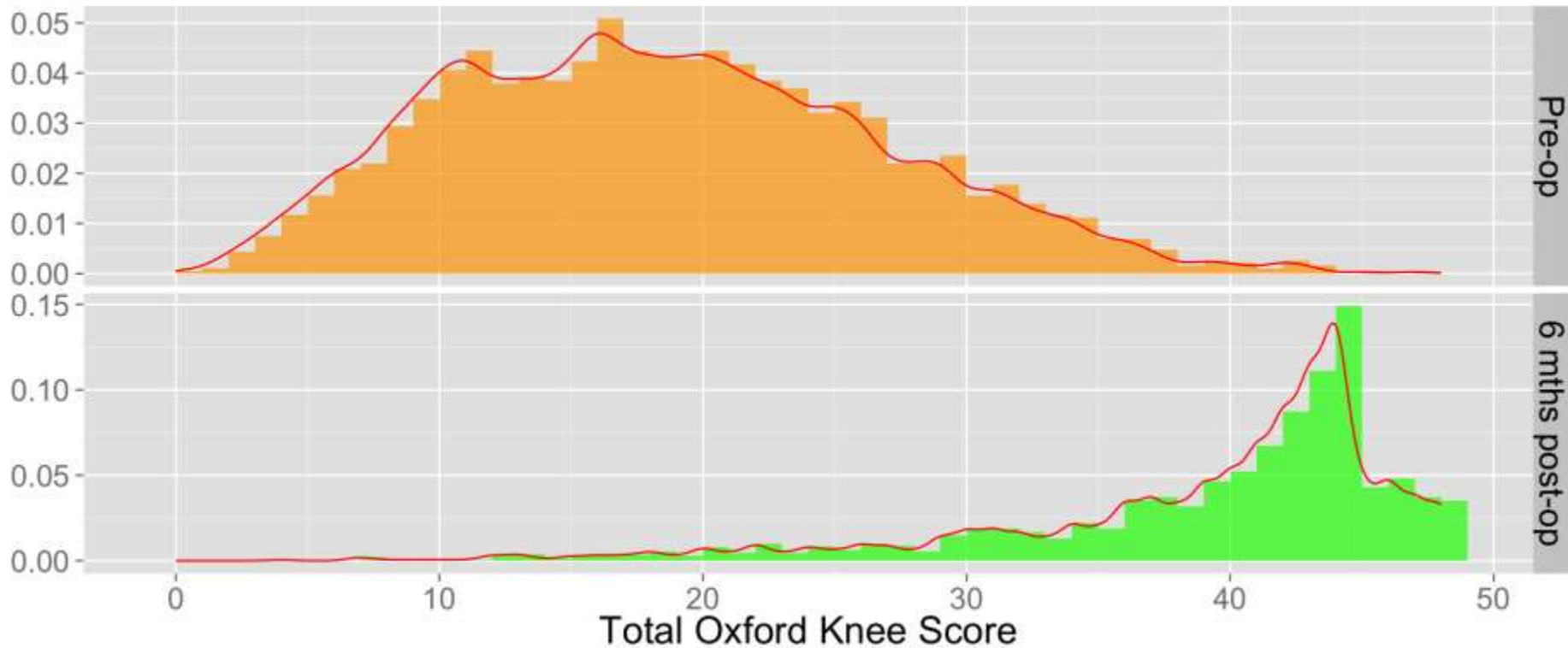
6 months post-op rating of success by the patient, July 2012 to June 2015



Distribution of Oxford hip scores pre-op versus post-op, July 2012 to June 2015



Distribution of Oxford knee scores pre-op versus post-op, July 2012 to June 2015



Hospital Reporting

Table 3.1.5a: Primary Hip Replacement: OHS Preoperative Scores

Preoperative Oxford Hip Score

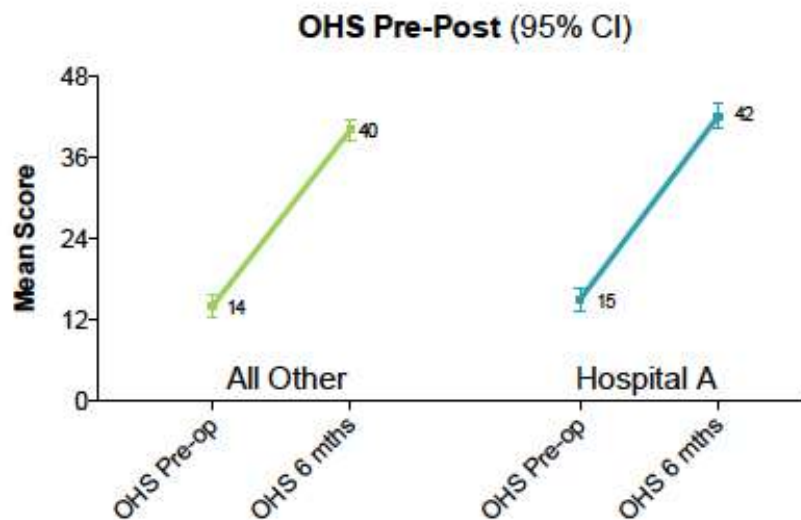
	N	Mean	SD	Minimum	Maximum
Hospital A	85	15	7.7	3	39
All Other Hospitals	92	14	7.8	0	35

Table 3.1.5b: Primary Hip Replacement: OHS Postoperative Scores

Postoperative Oxford Hip Score

	N	Mean	SD	Minimum	Maximum
Hospital A	56	42	7.1	15	48
All Other Hospitals	94	40	7.6	13	48

Figure 3.1: Oxford Hip Score Change



Hospital Reporting

Table 3.2.5a: Primary Knee Replacement: OKS Preoperative Scores

Preoperative Oxford Knee Score

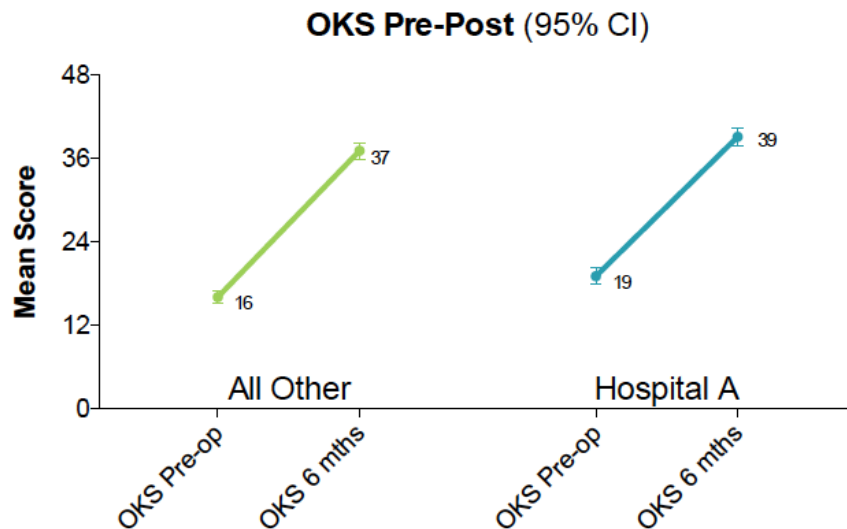
	N	Mean	SD	Minimum	Maximum
Hospital A	190	19	8.4	4	47
All Other Hospitals	257	16	7.6	3	39

Table 3.2.5b: Primary Knee Replacement: OKS Postoperative Scores

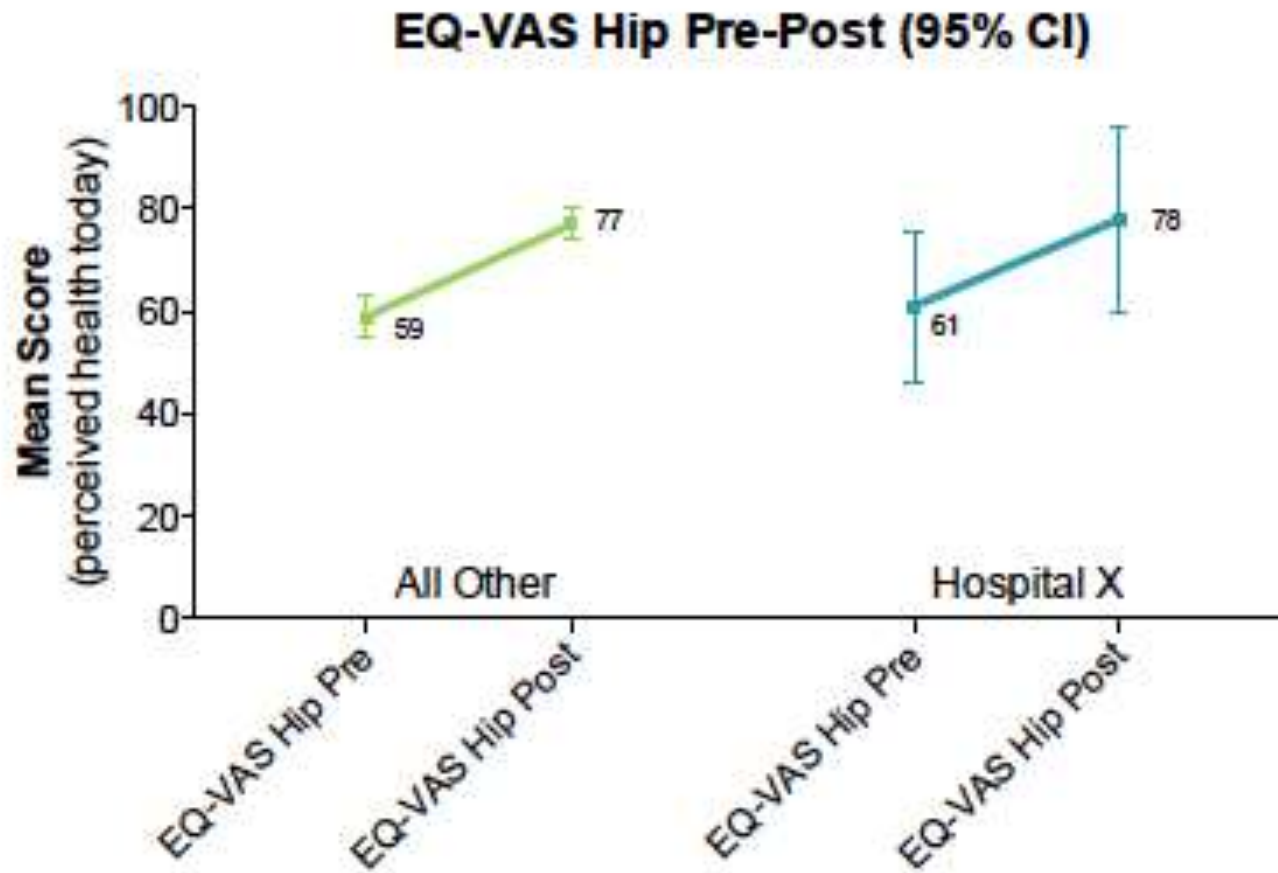
Postoperative Oxford Knee Score

	N	Mean	SD	Minimum	Maximum
Hospital A	157	39	8.0	8	48
All Other Hospitals	219	37	8.9	7	48

Figure 3.3: Oxford Knee Score Change



Hospital Reporting



Next steps...

- Achieve stable funding
- Utilise data to improve knowledge
- Improve data collection processes (get rid of paper wherever possible)
- Roll out to new hospitals
- Create value so ACORN becomes a “must do”
- Enhanced half yearly and annual reporting



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