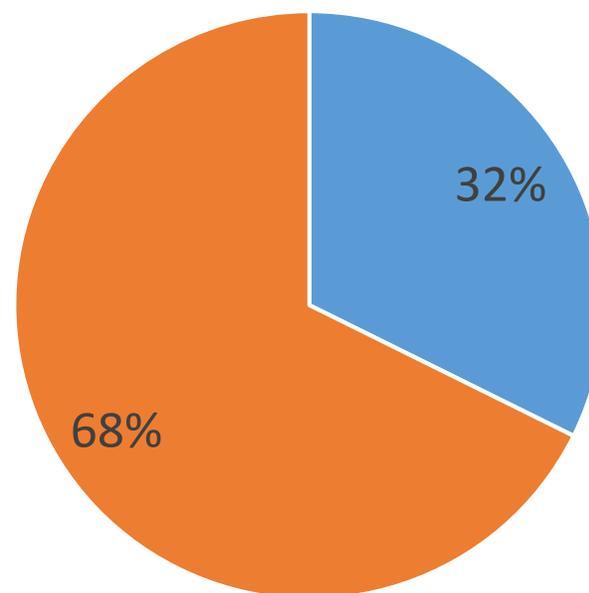


# An Improved Arthroplasty Care Pathway

Delivering Value Based Care

A five year  
track record  
now offered at  
60 sites  
nationally

2000 cases done since  
inception @R200m

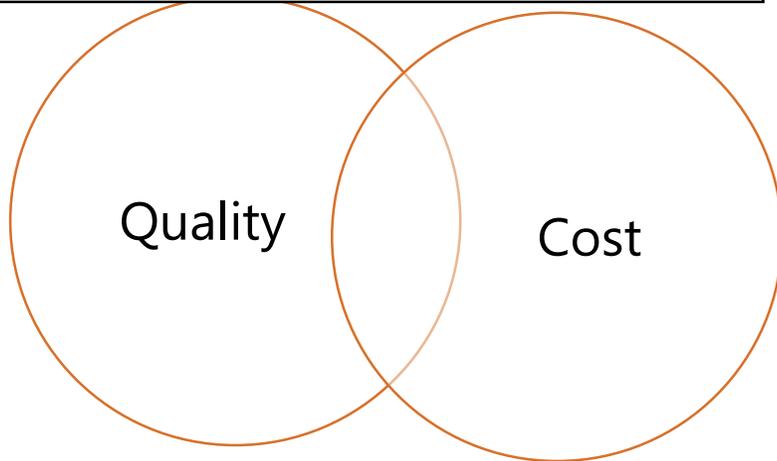


■ Hips ■ Knees

# ICPS's Mission:

- data driven
- quality inspired.

Better quality can often result in lower cost



## Monitoring and Management of Key Cost drivers:

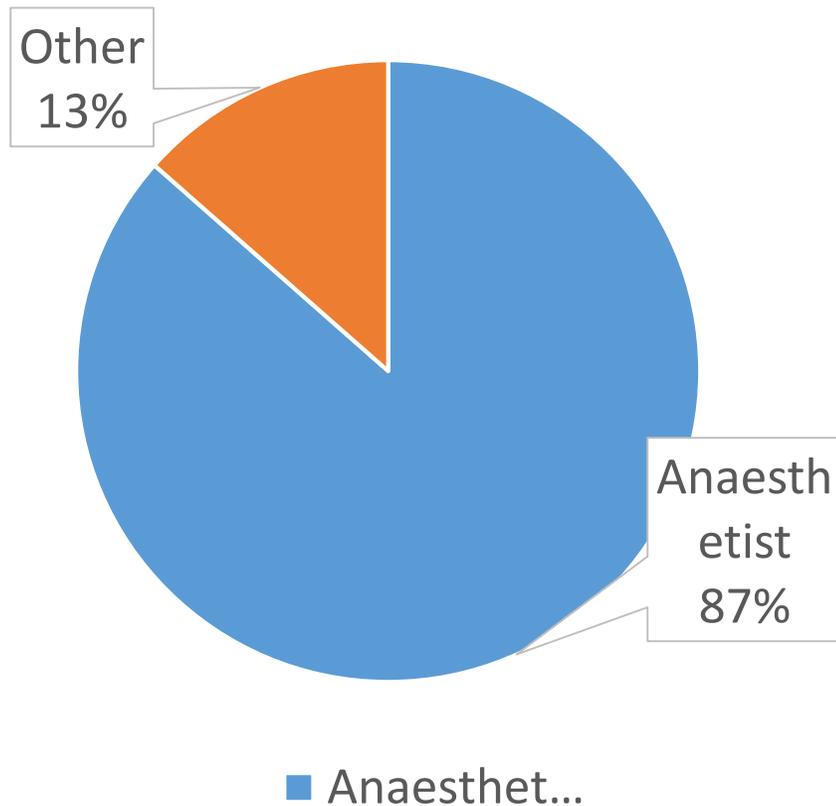
- theatre time
- length of stay
- level of care (ICU and high care utilization)
- surgical consumable utilization
- drug utilization

## Clinical Quality Management – Unique to ICPS:

- Pre-operative anaesthetic optimization
- Restrict network to experienced surgeons with objective
- Patient Reported Outcomes(WOMAC score)
- Delivering best practice for: prosthetic use, antibiotic usage, use of expensive unproven consumables e.g. Flyte hoods at R8000 per case.
- Adverse event reporting - Return to theatre during index admission, and 30/90 day post operative mortality and readmission rates

# Clinical Innovation 1:

Anaesthetic pre-operative assessment (versus a physician's report)



**Risk:** Pre-operative assessments in private hospitals in South Africa are seldom done by Anaesthetists who usually see patients on the red line in theatre just before surgery.

**The ICPS difference:** We have adapted the pre-authorisation and remuneration process to ensure that Anaesthetists in our network now adhere to international standards and do an American Society of Anaesthesia (ASA) pre-op score on all our cases. This is gaining traction but there are exceptions due to the shortage of anaesthetists in South Africa.

The ASA physical status score is a **predictor of postoperative morbidity & mortality** for both hip and knee arthroplasty.

ICPS use this to specifically manage index admission complications.

# Clinical Innovation 2:

Patient reported outcome measures (Proms = clinical outcomes)

## WOMAC – Western Ontario and McMaster University Osteoarthritis Index

- Self reporting
- Assesses pain, stiffness and function
- We have adjusted the questions to suit South African conditions.

### References:

- F. Wolfe, S.X. Kong

**Rasch analysis of the Western Ontario MacMaster questionnaire (WOMAC) in 2205 patients with osteoarthritis, rheumatoid arthritis, and fibromyalgia** Ann Rheum Dis, 58 (1999), p. 563

- F.M. Impellizzeri, A.F. Mannion, M. Leunig, *et al.*

**Comparison of the reliability, responsiveness, and construct validity of 4 different questionnaires for evaluating outcomes after total knee arthroplasty** J Arthroplasty, 26 (2011), p. 861

# Clinical Innovation 3:

## Standardised Care Pathway via evidence based guidelines

- Standard prosthesis: all major suppliers involved
- Careful patient preparation pre-operatively – no operations on seriously sick people.
- Standard low risk anaesthetic technique

= **significantly earlier mobilisation AND reduced acute post op-complications**

# Clinical Innovation 4: Adverse Event reporting and management



- Return to theatre during the index admission
- Re-admission within 90 days of the original surgery

# So what?

	SA Private Hospital market	ICPS performance
<b>LOS for hips &amp; knees</b>	6.9 days	3.8 days
<b>High Care utilisation</b>	70%	4.9%
<b>ICU utilisation</b>	<b>12%</b>	0.75%

# And improved Clinical Quality: adverse event reduction

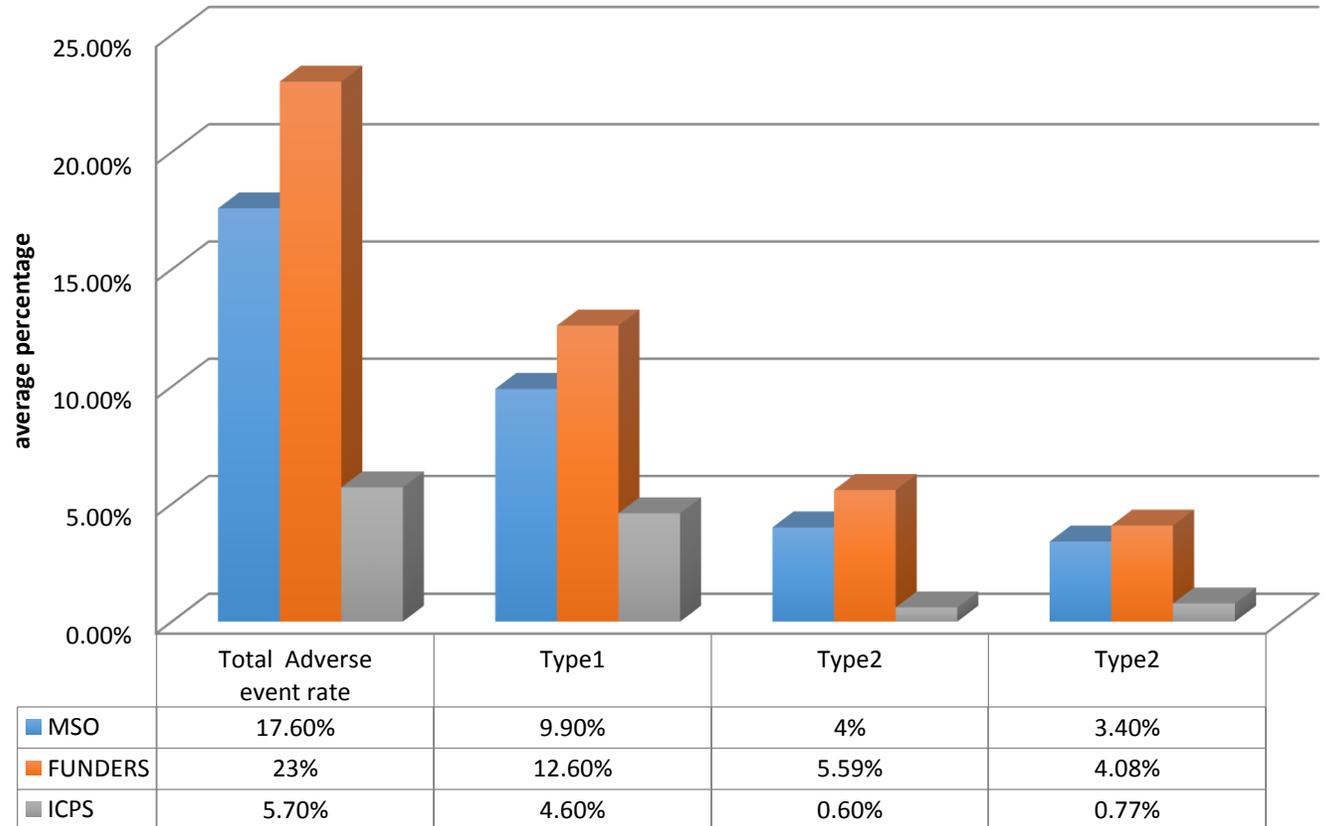


Categories:

1. Heart attack (acute myocardial infarction), pneumonia, or septicemia/shock during the index admission or within seven (7) days of admission; admission to HC more than 2 days, admission to ICU
2. Surgical site bleeding, superficial wound infection during the index admission or within 30 days of admission
3. Mechanical complications or peri-prosthetic joint infection/ deep wound infection and pulmonary embolism or death during the index admission or within 30 to 90 days of admission.

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Adverse event rates



# Strategic issues to consider when implementing a Standardised Care Pathway :

## Strengths

- An established network with 5 year track record.
- Costs 10% - 30% less than average current costs depending on the medical aid.
- Financial risk reduction for funders: fixed fee
- Unique Clinical Quality assurance with reduced acute complications
- Further Cost reduction possible: by lowering the complication rate – financial risk sharing possible.

## Challenges

- Three big Hospital groups now have similar products but ineffective quality assurance.
- Large Medical Administrators want to start getting value for channeling: