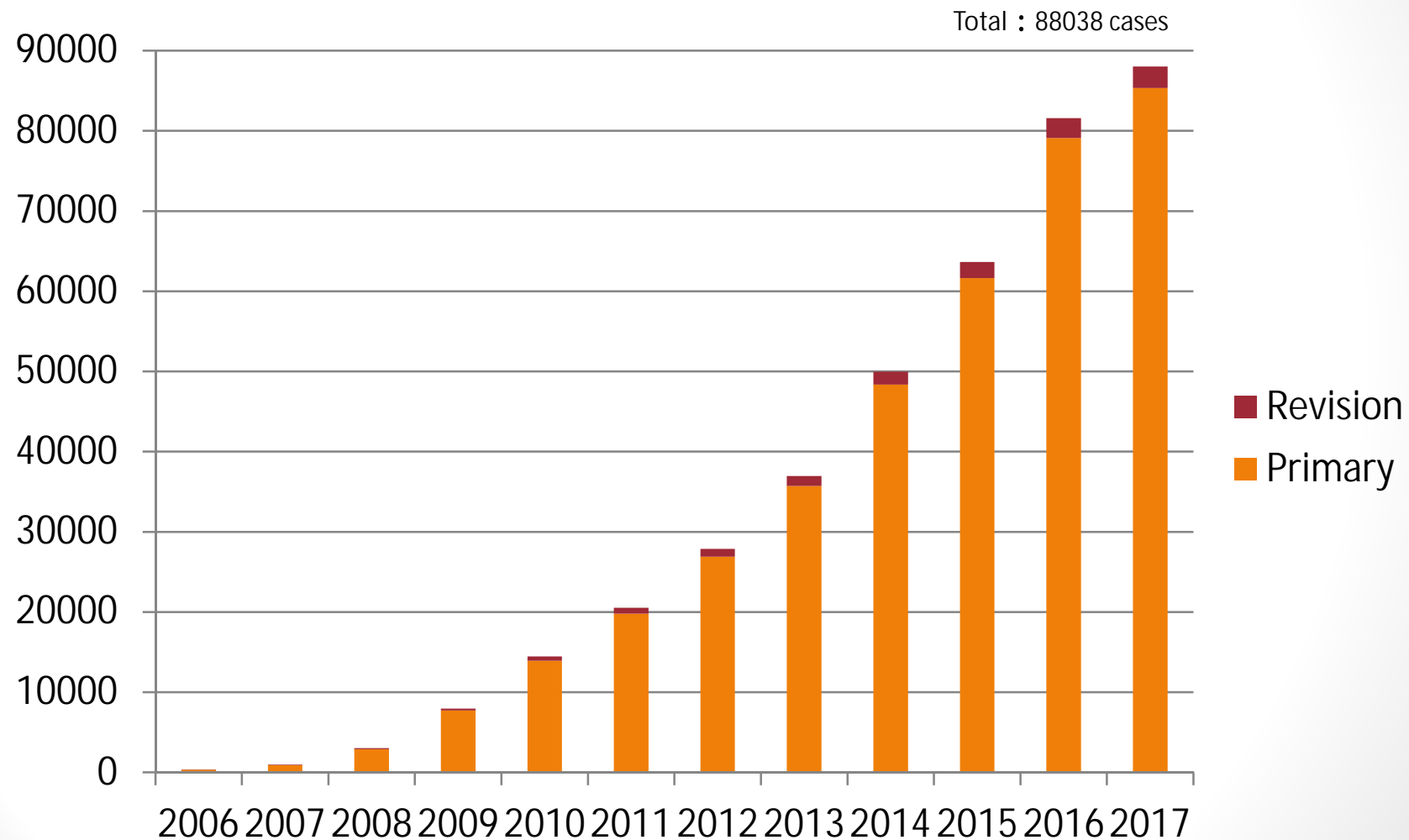


# 2016 ANNUAL REPORTS (TKA/UKA/PFA)

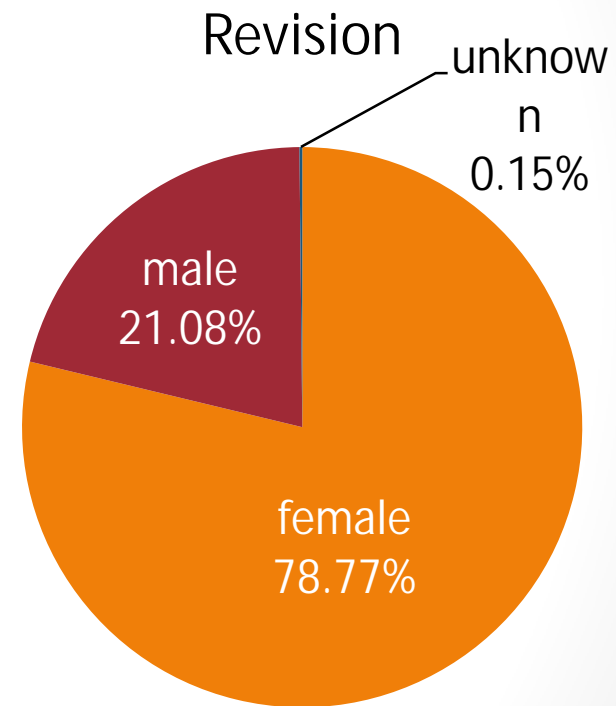
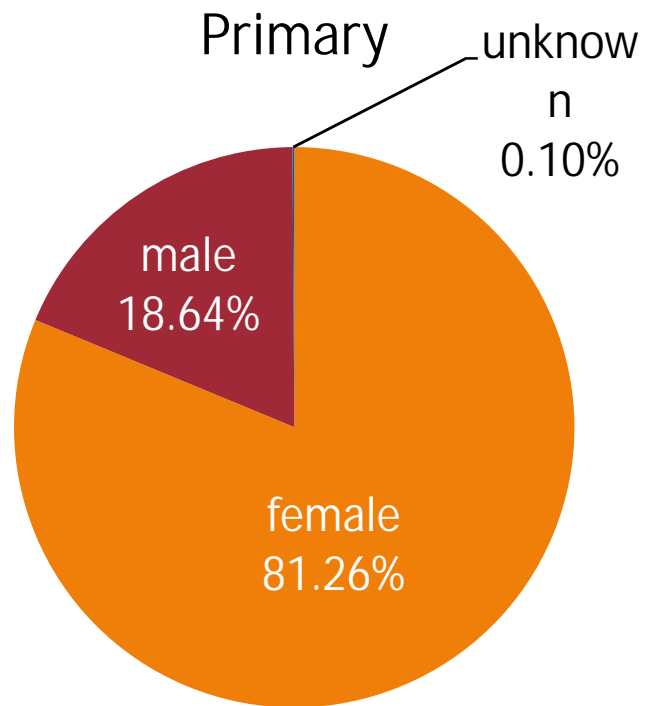
The Japanese Society For Replacement Arthroplasty  
The Japan Arthroplasty Register

2017/3/31

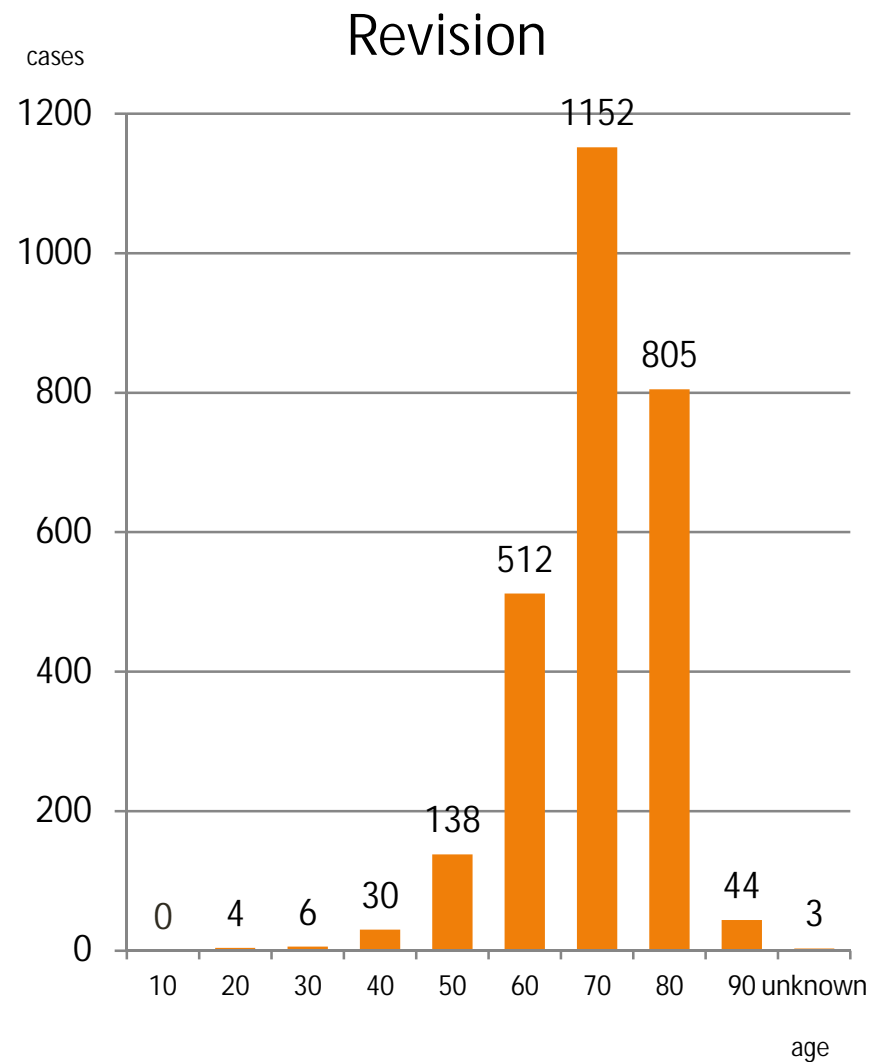
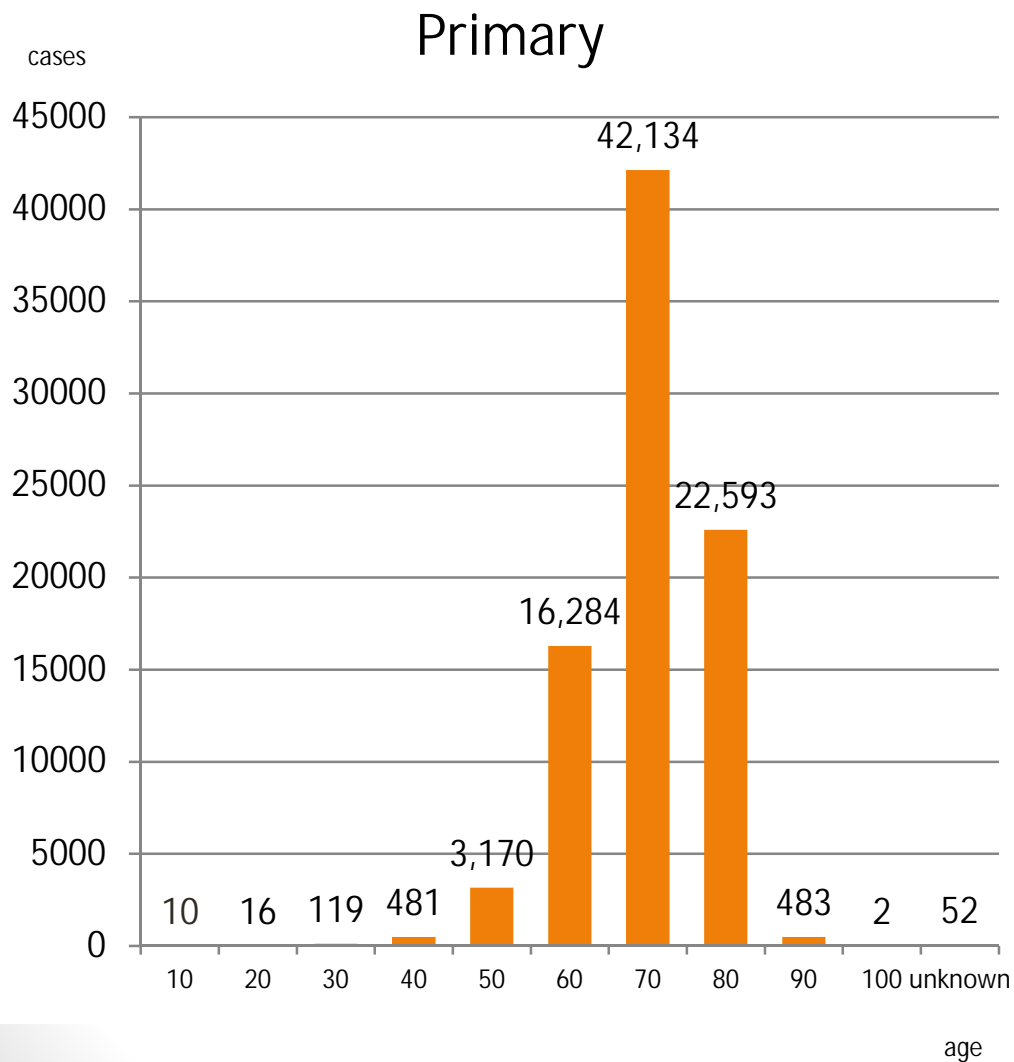
# Number of Registrations



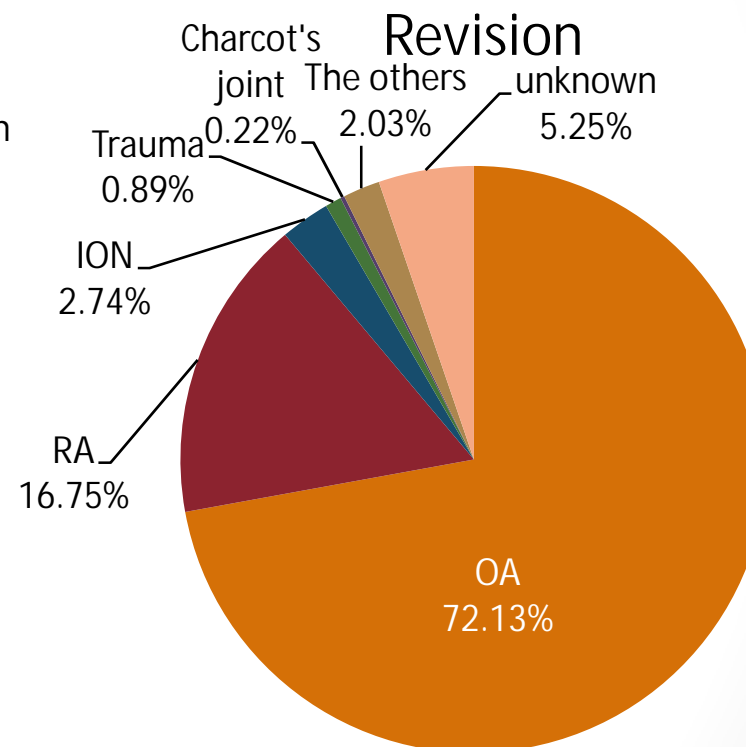
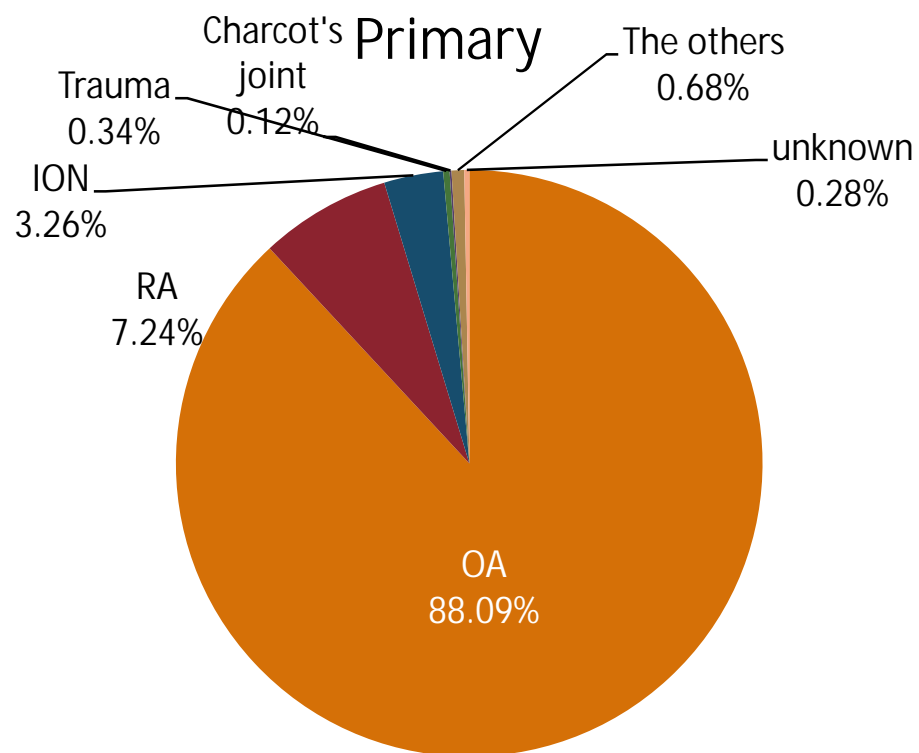
# Gender



# Age distribution

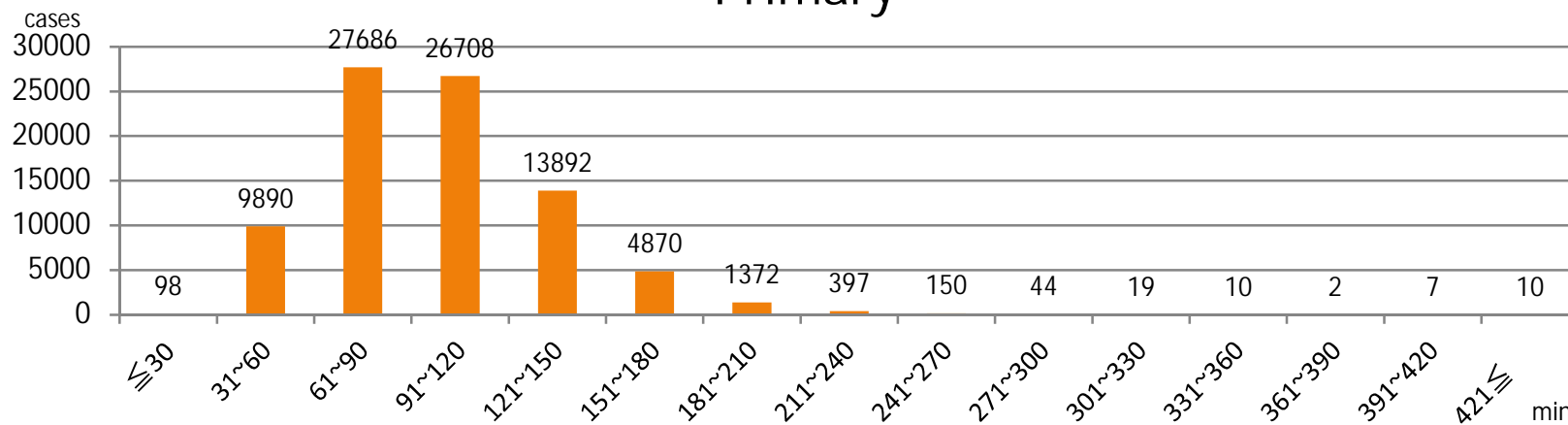


# Initial diagnosis

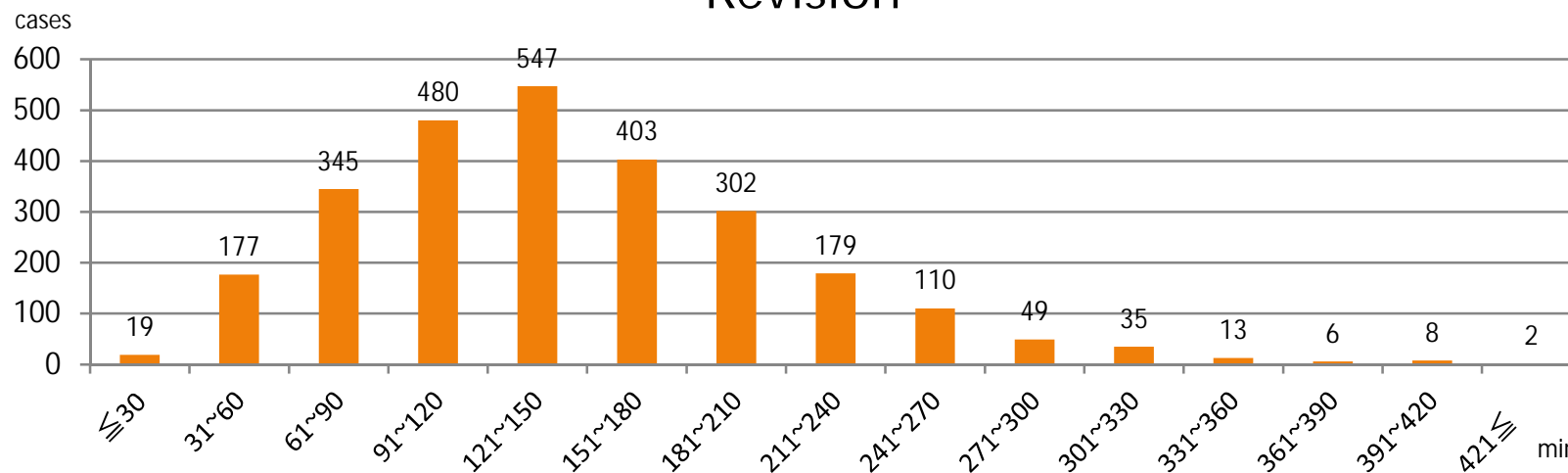


# Operation time

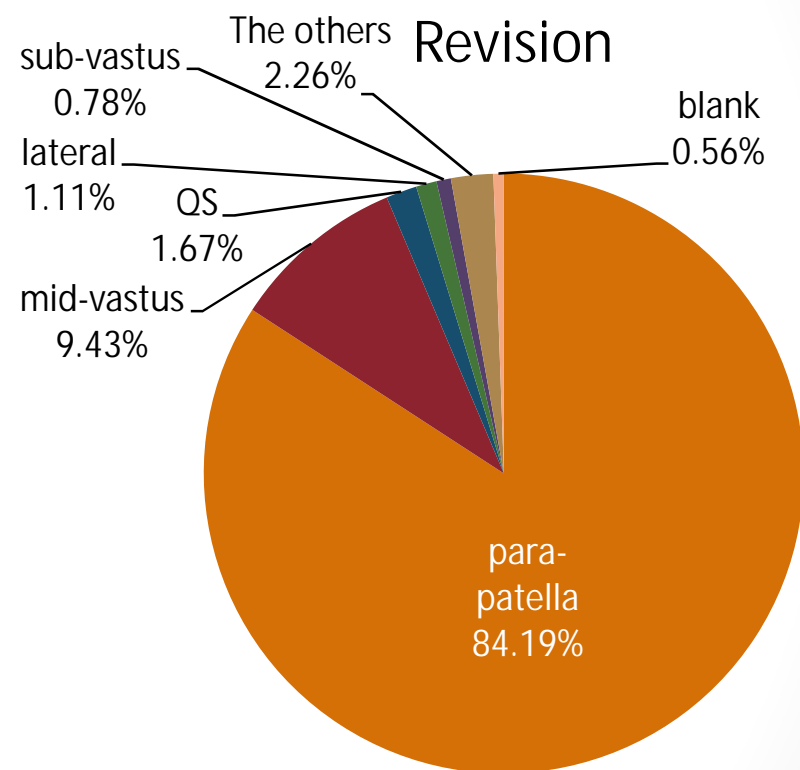
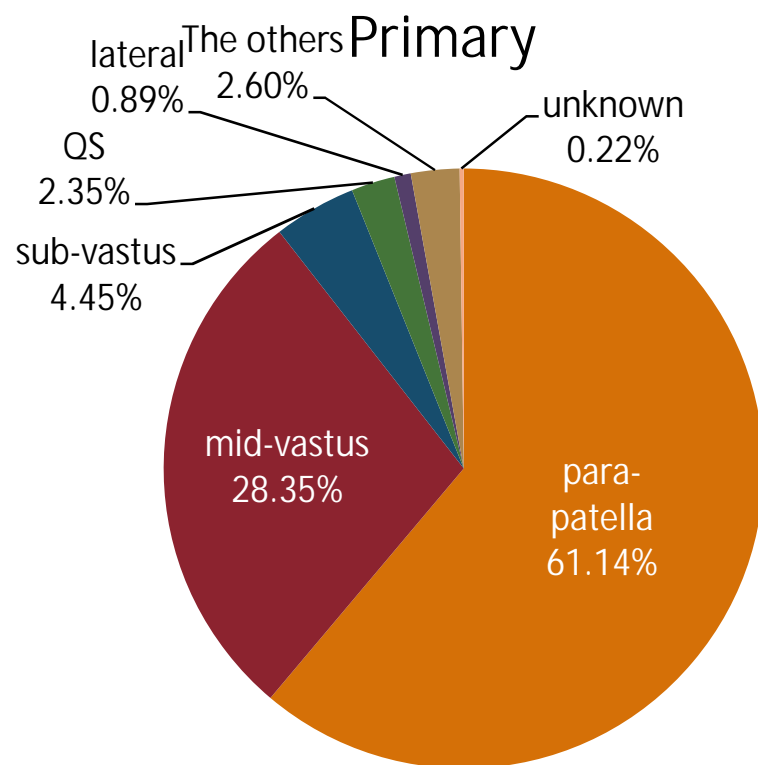
## Primary



## Revision

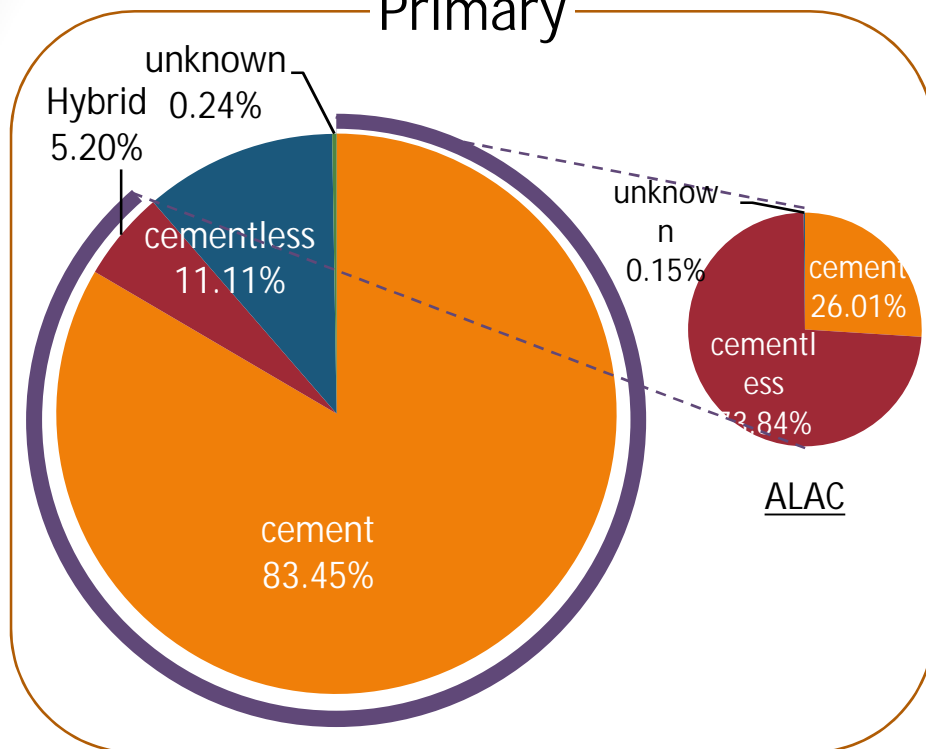


# Approach

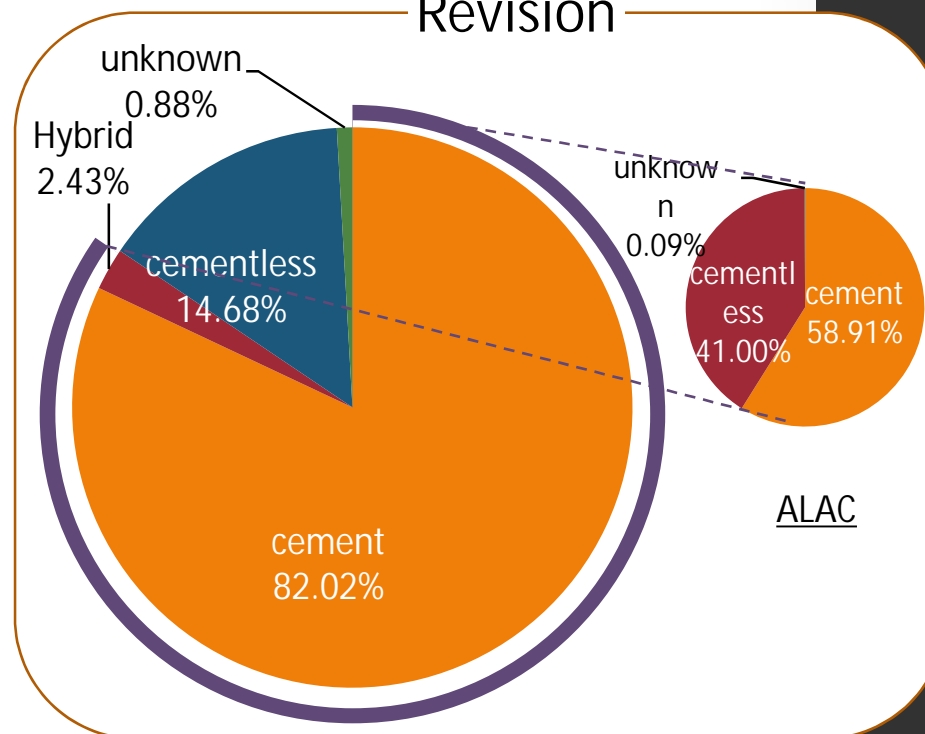


# Cement/Cementless

## Primary



## Revision

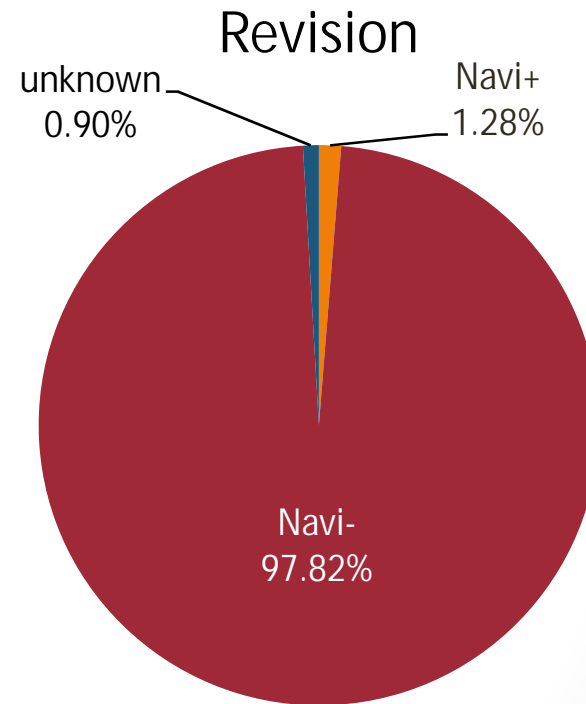
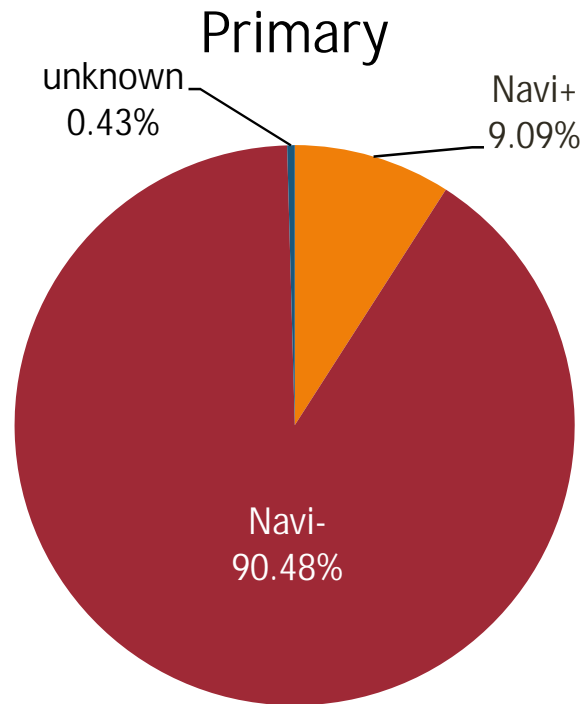




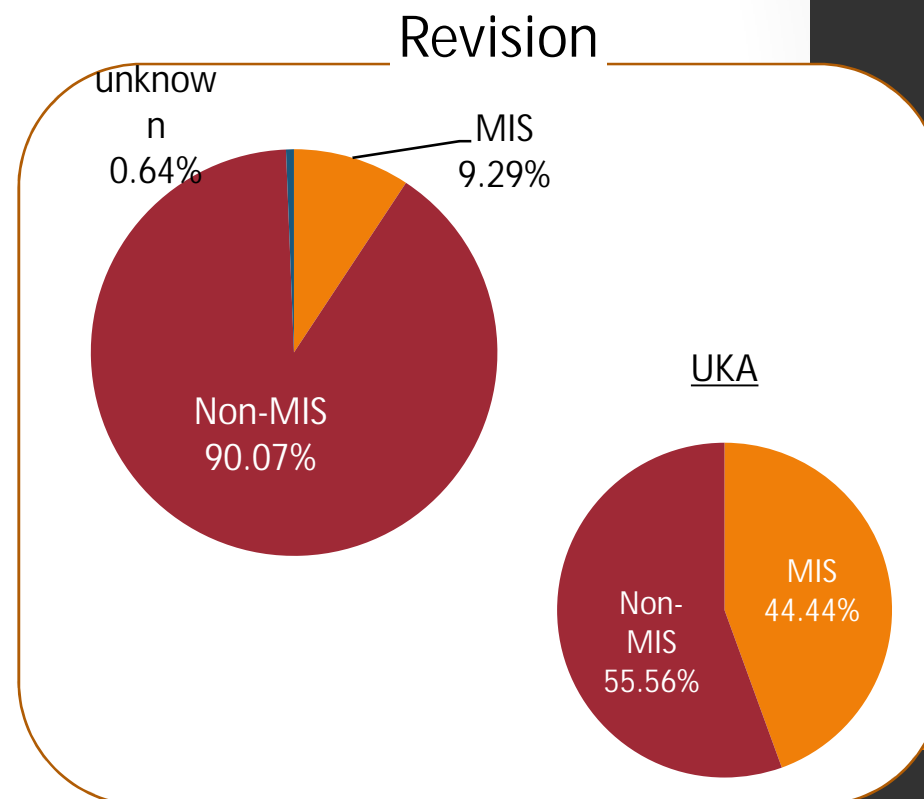
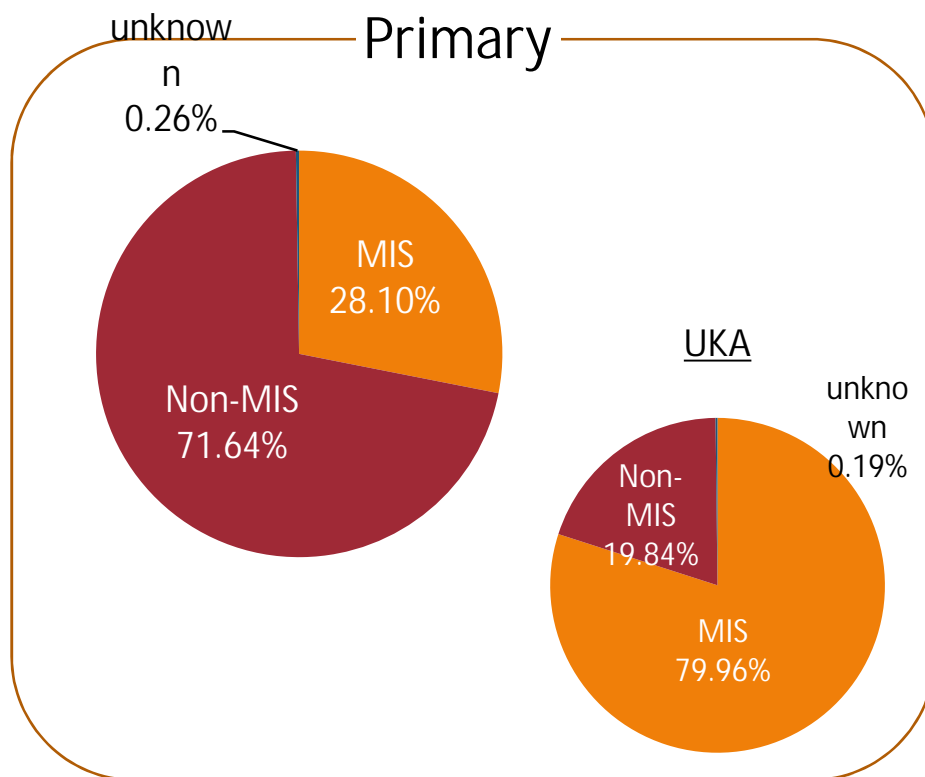
# Bone grafting

	Primary	Revision
none	86.53%	80.21%
chip , small autograft (femur)	6.07%	4.12%
chip , small autograft (femur+tibia)	2.32%	2.76%
chip , small autograft (femur+tibia+patella)	0.01%	-
chip , small autograft (femur+patella)	0.01%	-
chip , small autograft (tibia)	3.75%	3.93%
chip , small autograft (tibia+patella)	0.005%	0.08%
chip , small autograft (patella)	0.02%	0.12%
chip , small allograft (femur)	0.05%	0.62%
chip , small allograft (femur+tibia)	0.02%	0.74%
chip , small allograft (femur+tibia+patella)	-	0.04%
chip , small allograft (tibia)	0.04%	0.74%
chip , small allograft (patella)	0.001%	-
block , large autograft (femur)	0.20%	0.70%
block , large autograft (femur+tibia)	0.12%	0.93%
block , large autograft (femur+tibia+patella)	0.004%	0.04%
block , large autograft (femur+patella)	0.001%	-
block , large autograft (tibia)	0.79%	0.97%
block , large autograft (patella)	0.005%	-
block , large allograft (femur)	0.01%	0.97%
block , large allograft (femur+tibia)	0.01%	1.48%
block , large allograft (femur+tibia+patella)	-	0.19%
block , large allograft (femur+patella)	-	0.04%
block , large allograft (tibia)	0.02%	1.21%
block , large allograft (tibia+patella)	-	0.04%
block , large allograft (patella)	0.001%	0.08%

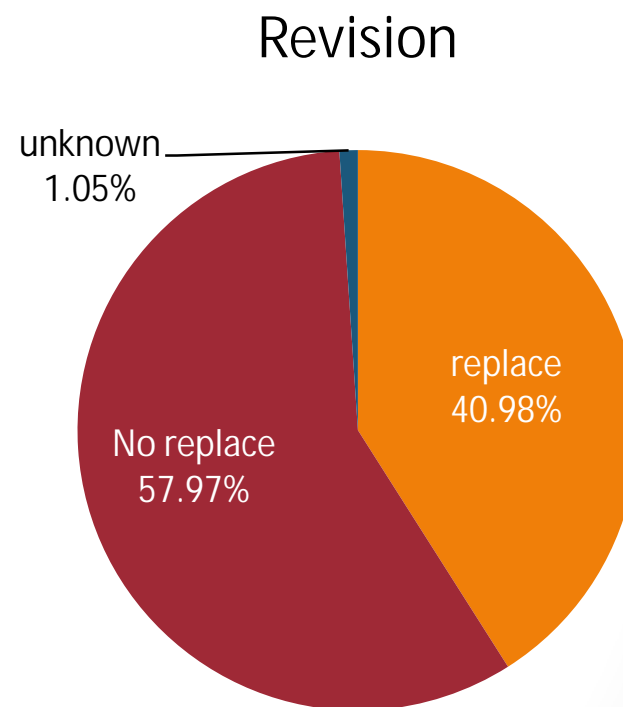
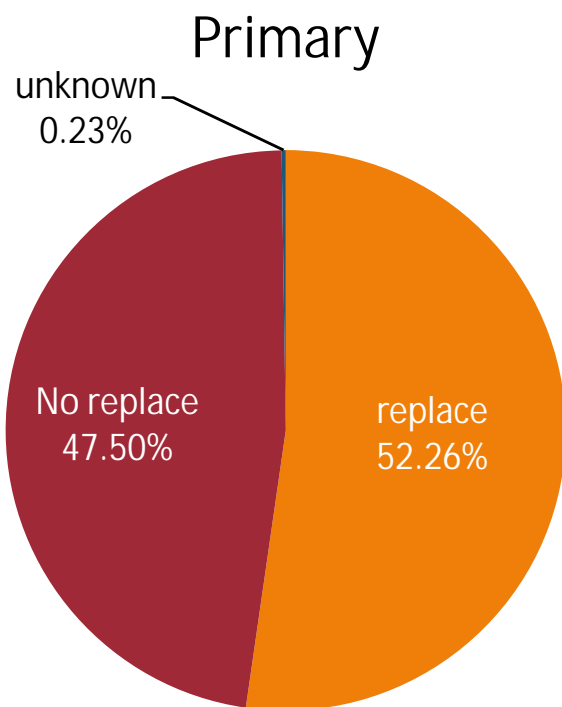
# Navigation



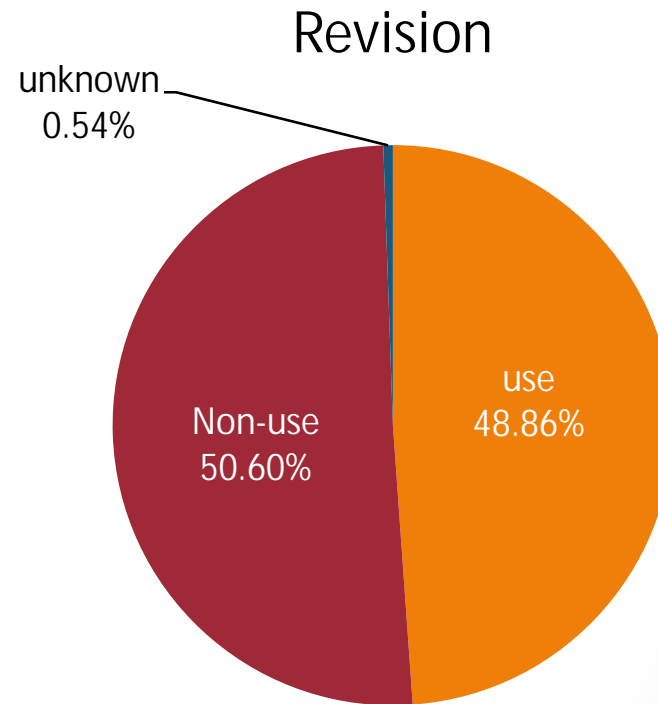
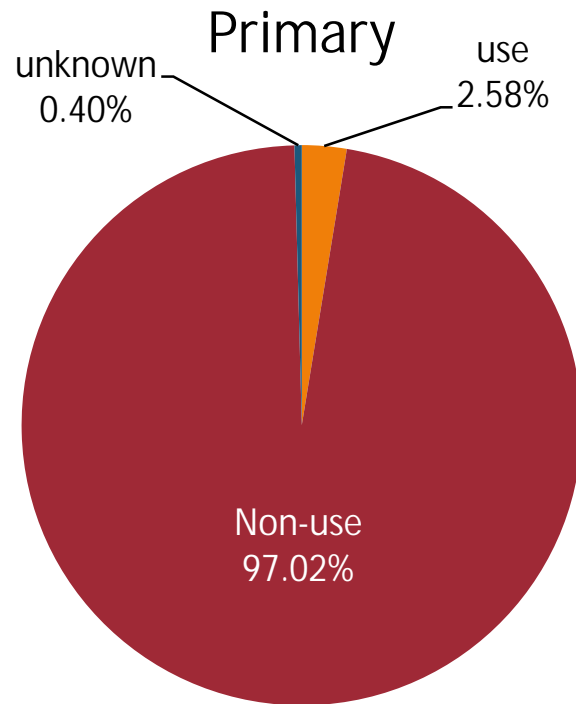
# minimally invasive technique



# Patella replacement



# Reinforcement parts

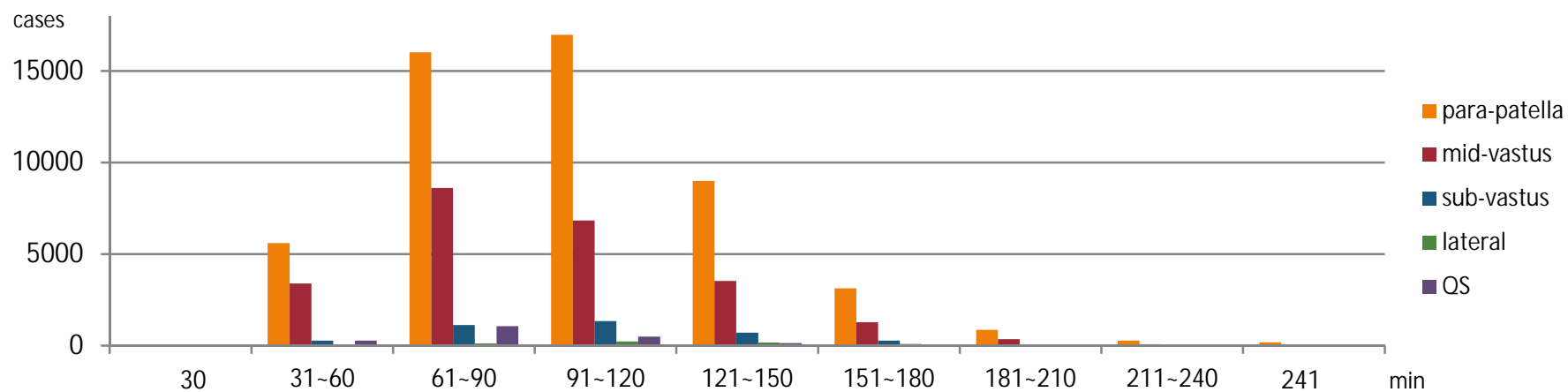


# Causes of revision

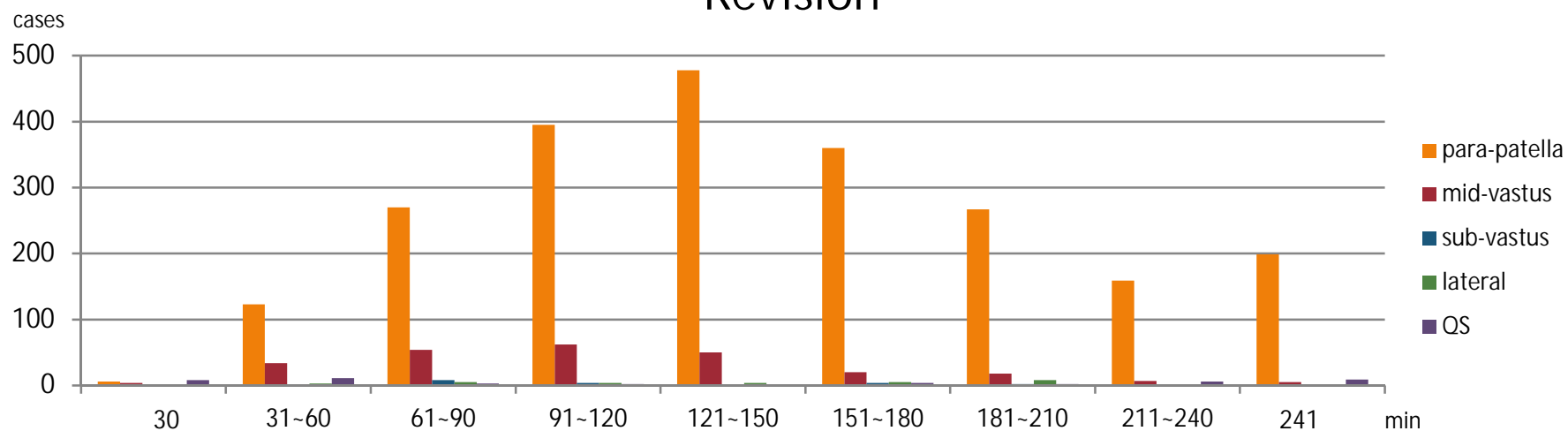
	n=2694 multiple answers allowed
Loosening (femur)	502
Loosening (patella)	43
Loosening (tibia)	668
Infection	884
Polyethylene wear (tibia)	362
Polyethylene wear (patella)	63
Implant breakage (femur)	20
Implant breakage (tibia)	78
Implant breakage (patella)	27
Trauma	56
Dislocation • instability	319
Excursion restrictions	78
The others	377

# Approach and operation time

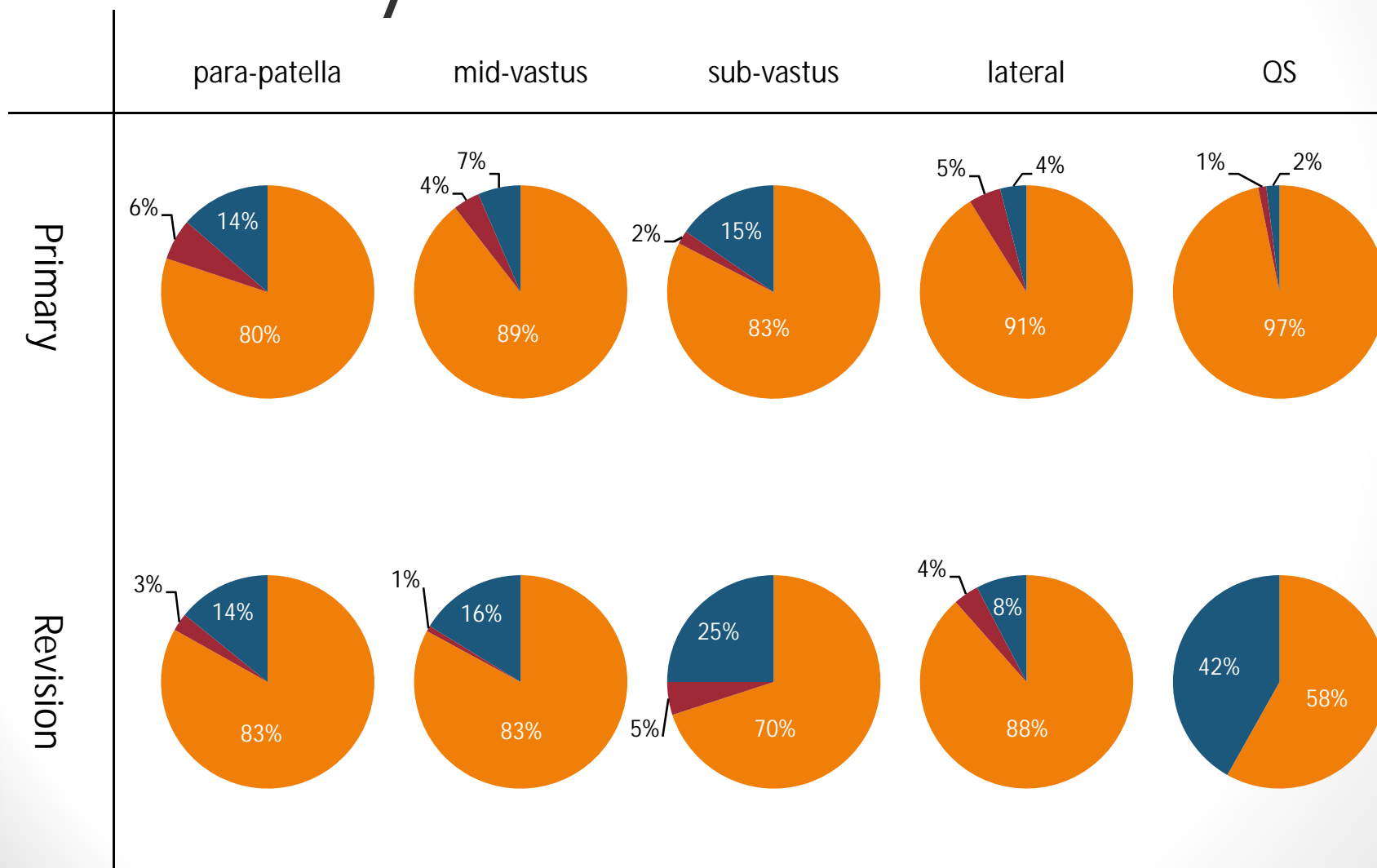
## Primary



## Revision

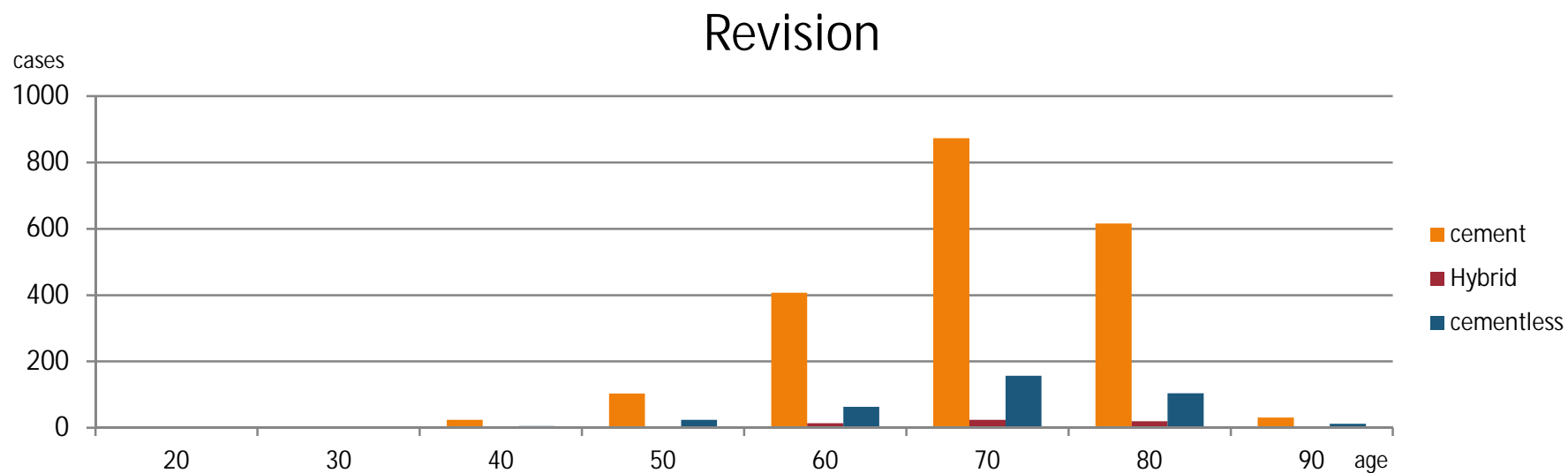
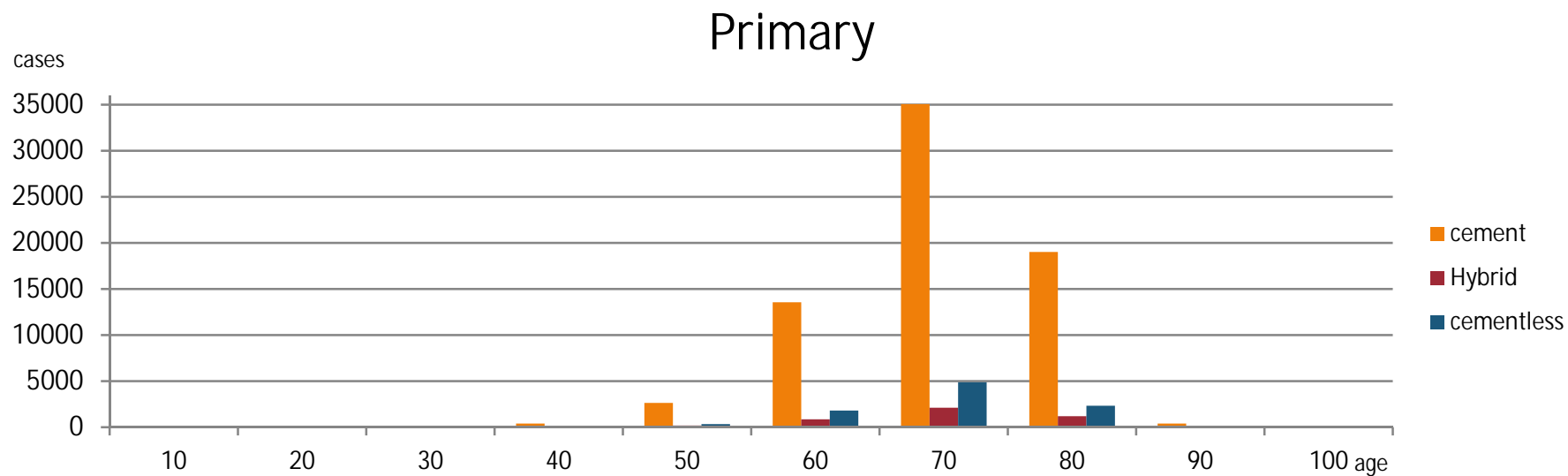


# Approach and Cement/Cementless





# Cement/Cementless and ages



# Implant companies

## Primary

Target operation : 85219 cases

Maker ' s name	
Zimmer Biomet	46.64%
Stryker	16.91%
Depuy Synthes	13.73%
Smith & Nephew	7.38%
Kyocera Medical	5.63%
Teijin Nakashima Medical	3.71%
MicroPort Orthopedics	2.64%
B.Braun Aesculap	0.95%
Exactech	0.80%
ORTHO DEVELOPMENT	0.75%
Senko Medical Instrument Mfg(Mera)	0.39%
Medacta	0.32%

## Revision

Target operation : 1696 cases

Maker ' s name	
Zimmer Biomet	56.43%
Stryker	19.58%
Depuy Synthes	8.49%
Smith & Nephew	7.08%
Kyocera Medical	3.54%
Waldemar LINK	1.59%
Teijin Nakashima Medical	1.12%
MicroPort Orthopedics	0.88%
ORTHO DEVELOPMENT	0.83%
Exactech	0.29%

# Implant goods

## Primary

Target operation : 85218 cases

Maker ' s name	Product name	
Zimmer Biomet	NEXGEN	22.52%
Zimmer Biomet	VANGUARD	15.35%
Stryker	Scorpio	9.95%
Depuy Synthes	LCS	4.96%
Stryker	Triathlon	6.68%
Smith & Nephew	GENESIS	3.73%
Zimmer Biomet	UNICOMPARTMENTAL KNEE SYSTEM	4.13%
Zimmer Biomet	Oxford	3.50%
Kyocera Medical	Total knee prosthesis femur component GB03 KU4+	1.35%
Zimmer Biomet	PERSONA	4.72%
Depuy Synthes	ATTUNE	3.40%
Teijin Nakashima Medical	FINE Total knee prosthesis	2.07%
Smith & Nephew	LEGION	2.17%
Kyocera Medical	Bi-Surface	2.67%
MicroPort Orthopedics	ADVANCE	1.29%
Teijin Nakashima Medical	FNK Total knee prosthesis	1.28%
Depuy Synthes	P.F.C. SIGMA	1.21%
MicroPort Orthopedics	EVOLUTION	1.34%
The others		7.66%

## Revision

Target operation : 1696 cases

Maker ' s name	Product name	
Zimmer Biomet	NEXGEN	41.04%
Stryker	Scorpio	9.96%
Zimmer Biomet	VANGUARD	11.32%
Stryker	Triathlon	7.19%
Smith & Nephew	GENESIS	3.60%
Depuy Synthes	P.F.C. SIGMA	2.89%
Depuy Synthes	SIGMA	4.01%
Waldemar LINK	LINK Total knee prosthesis system	1.53%
Depuy Synthes	LCS	1.30%
Zimmer Biomet	OSS	1.53%
Zimmer Biomet	PERSONA	1.18%
Teijin Nakashima Medical	FNK Total knee prosthesis	1.00%
Kyocera Medical	Hinge type	1.12%
Kyocera Medical	PHYSIO-KNEE SYSTEM	1.12%
MicroPort Orthopedics	ADVANCE	0.83%
The others		10.38%

# Bioactive materials

## Primary

Target operation : 2379 cases

Product name	
Superpore	55.40%
Artificial bone implant apaceram	19.36%
Bone prosthetic material $\beta$ bone	10.92%
Boneceram-P	10.21%
Neobone	2.90%
Bone prosthetic material OSferion	0.46%
Bone prosthetic material OSferion 60	0.34%
The others	0.42%

## Revision

Target operation : 117 cases

Product name	
Boneceram-P	39.83%
Artificial bone implant apaceram	11.86%
Biopex(R)	11.02%
Bone prosthetic material OSferion	8.47%
Neobone	5.93%
Bone prosthetic material OStinato	5.08%
Superpore	5.08%
The others	12.71%