



ICCK
*Annual
Conference*
2025

INTERVENTIONAL REGISTRY

01 Jan 2024 - 31 Dec 2024

Dr. Ramesh Natarajan
Secretary
ICCK



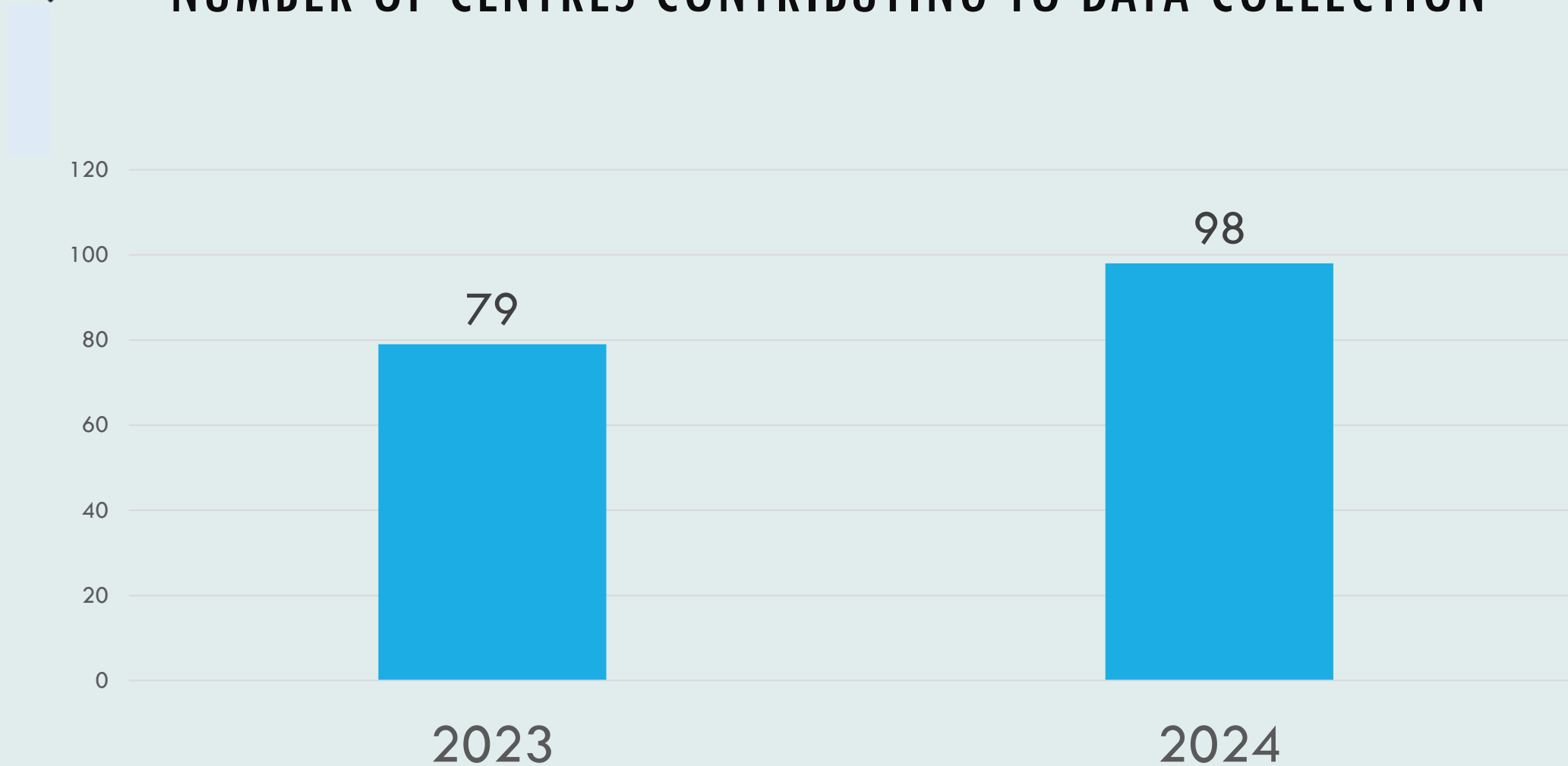
DATA COLLECTED FOR 2024

*INERTIA
CONTINUES.....*

Data Received from
98
Cath Labs



NUMBER OF CENTRES CONTRIBUTING TO DATA COLLECTION





Total number of interventional centers - 149

Sites with on-site cardiac surgery support – 31 (20.8%)

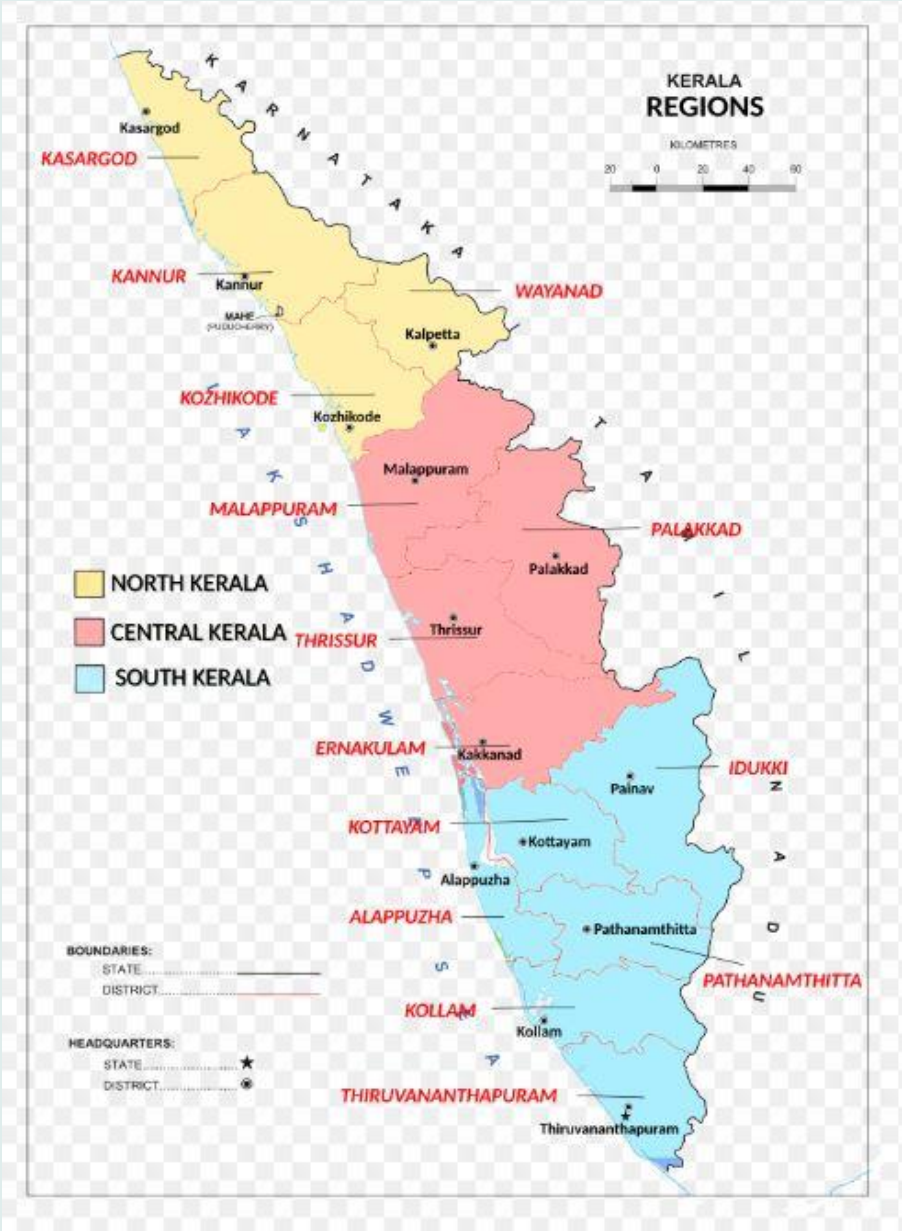


TOTAL CATH LABS

NORTH ZONE	-	44
CENTRAL ZONE	-	66
SOUTH ZONE	-	39

HOSPITALS WITH MORE THAN ONE CATH LAB: 21

NORTH ZONE	-	8
CENTRAL ZONE	-	8
SOUTH ZONE	-	5



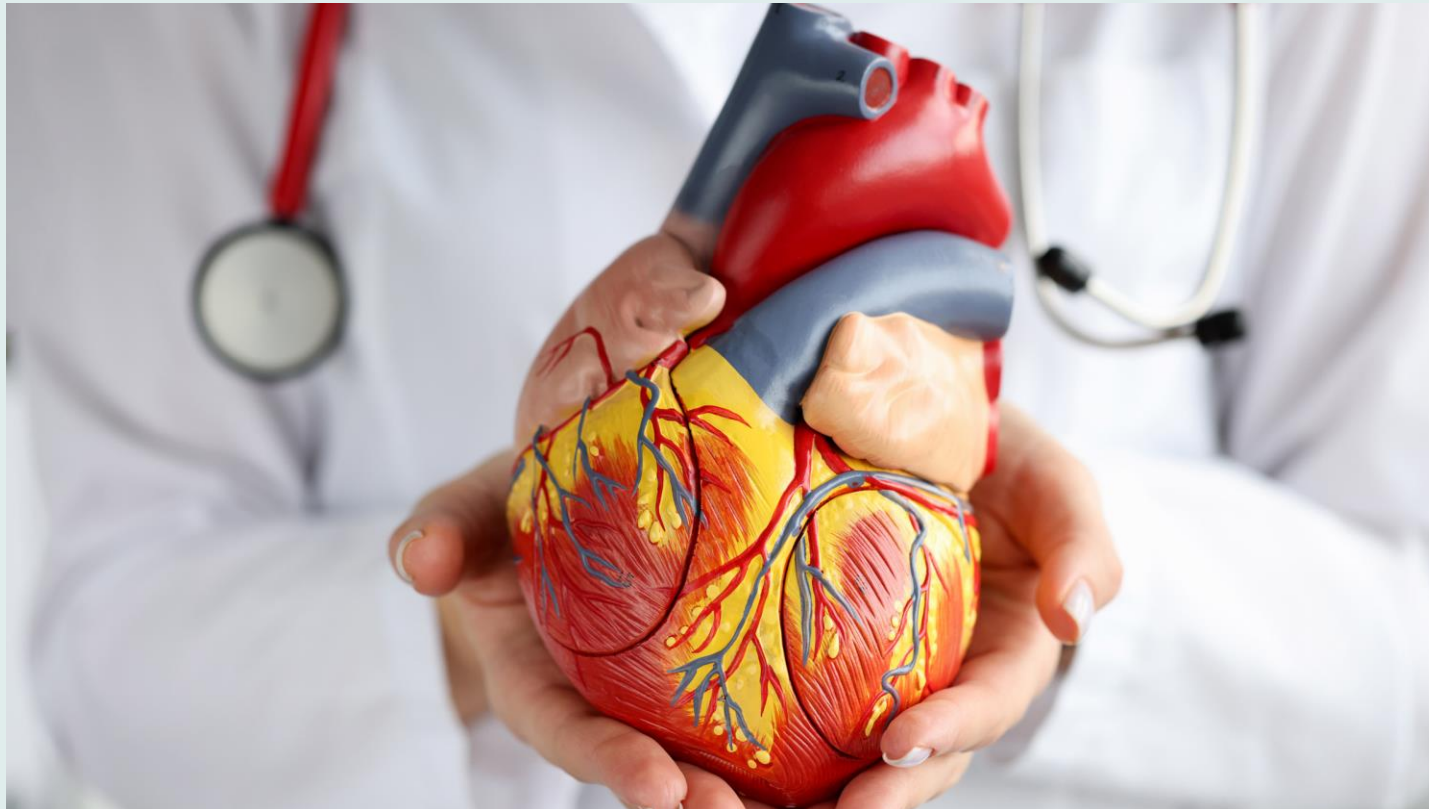


TOP 5 DISTRICTS WITH LARGEST NUMBER OF CATHLABS

#	District	Number
1	Ernakulam	21
2	Thiruvananthapuram	14
3	Kozhikode	14
4	Thrissur	13
5	Kollam	11

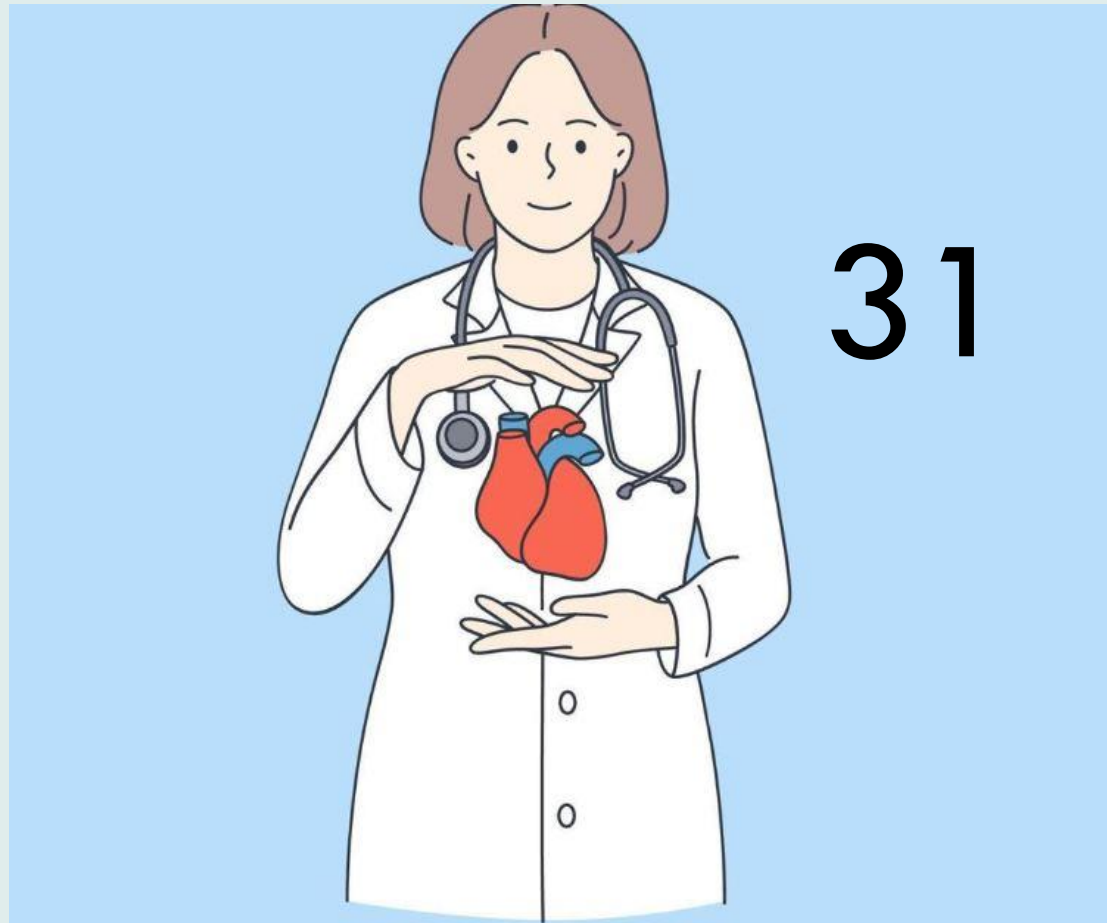


**Total number of Interventional
Cardiologists registered with
ICCK - 365**



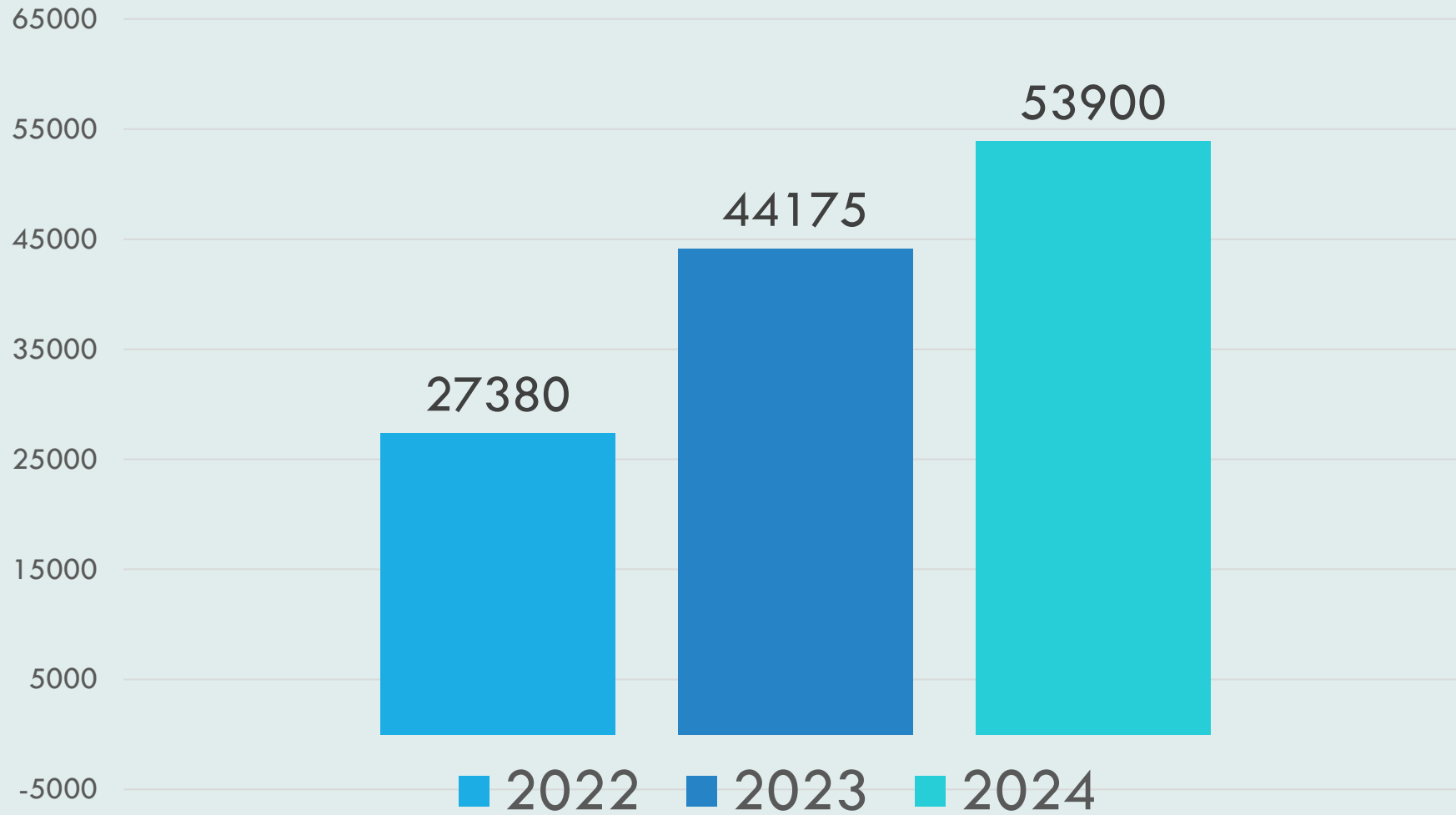


WOMEN OPERATORS IN INTERVENTIONAL CARDIOLOGY 2024





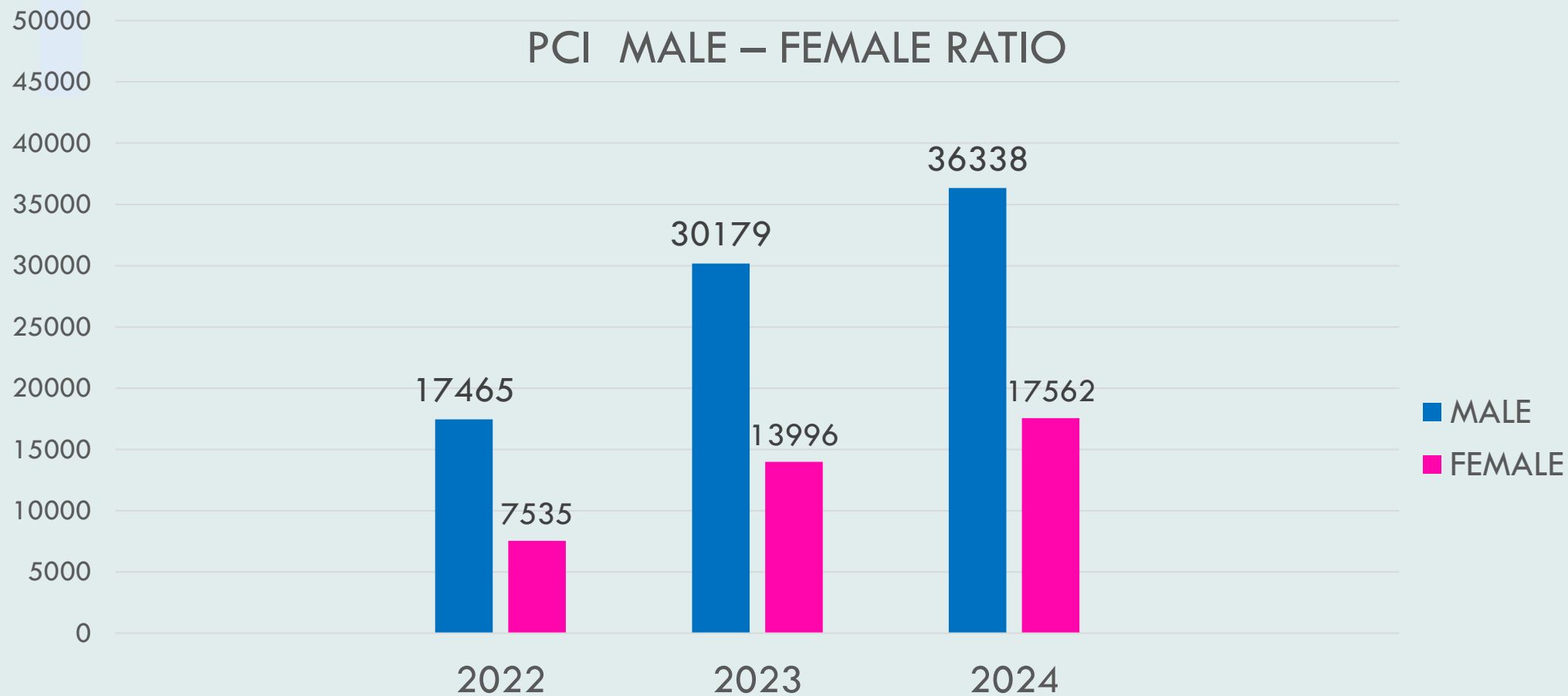
PCI — KERALA GROWTH





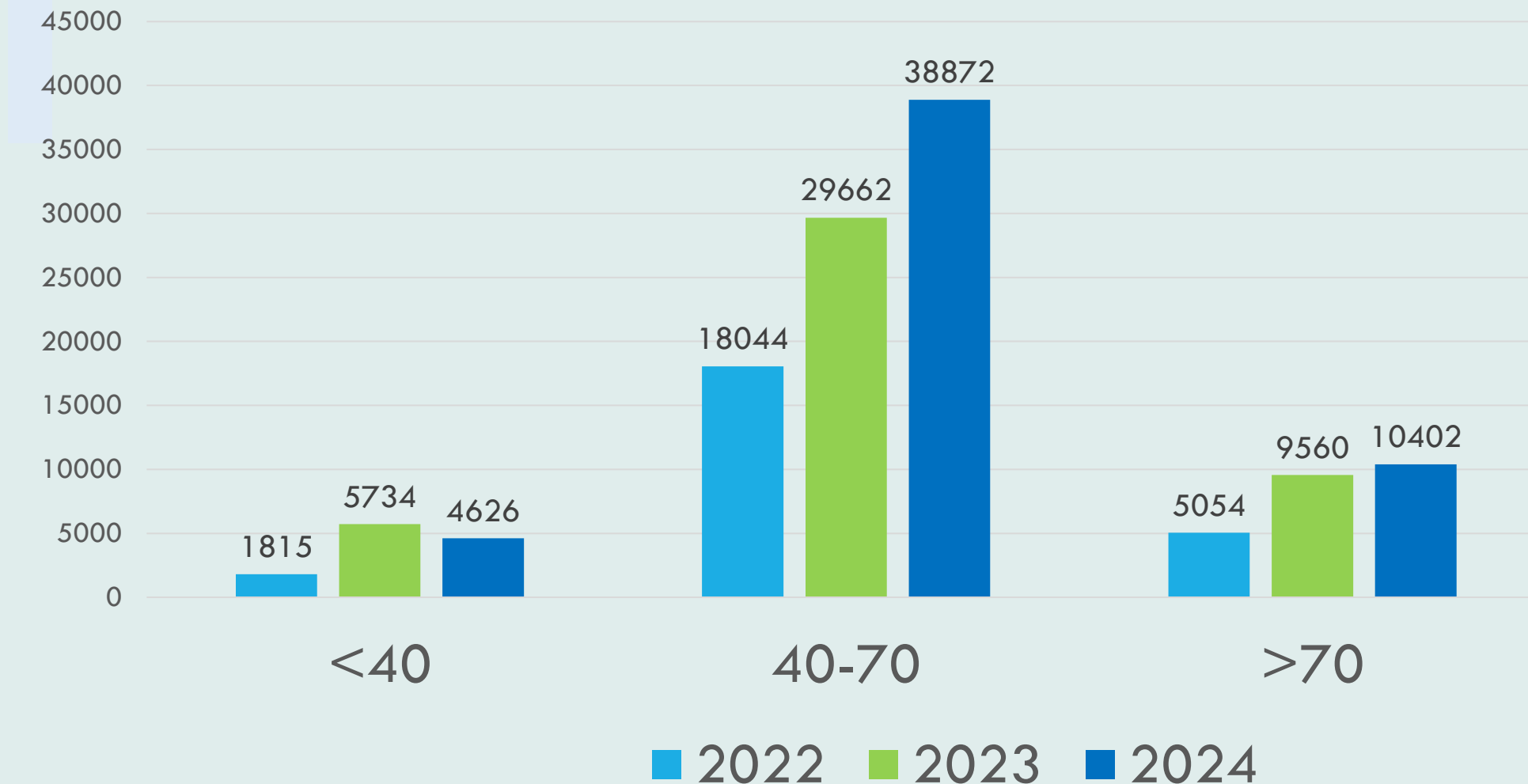
GROWTH DATA BASED ON GENDER

PCI MALE – FEMALE RATIO





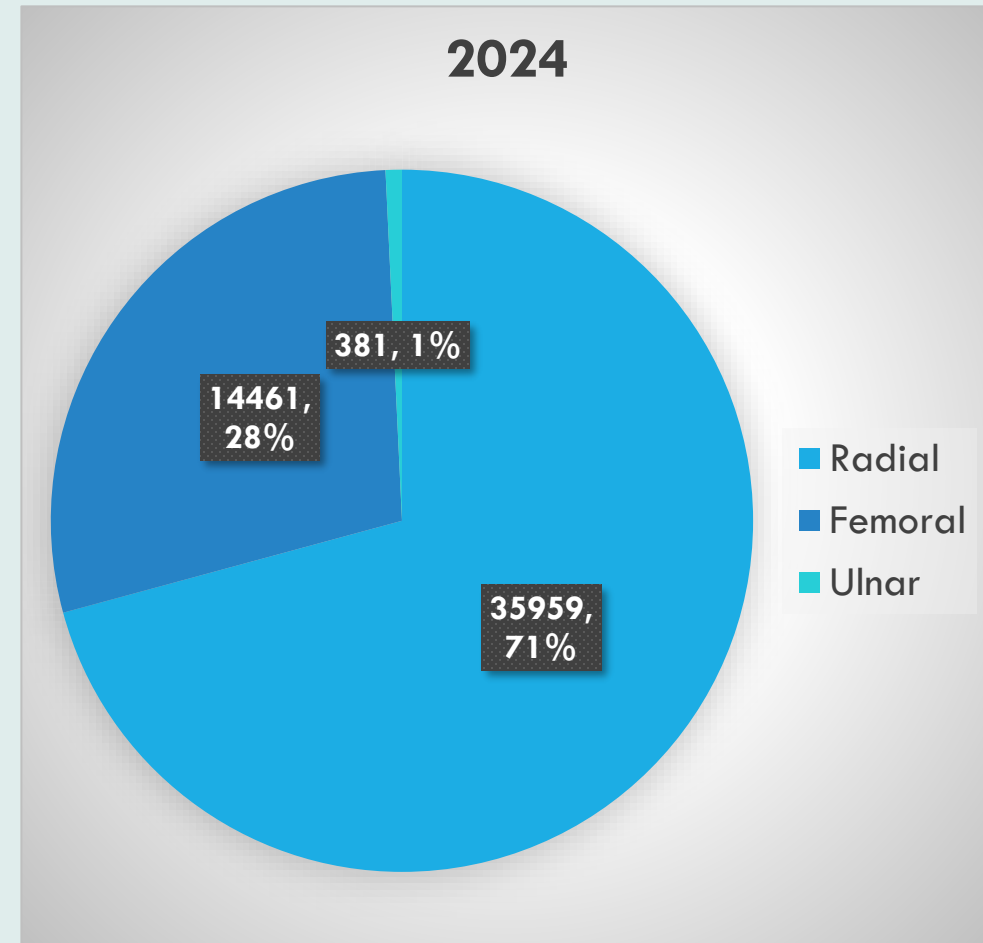
GROWTH DATA BASED ON AGE GROUP





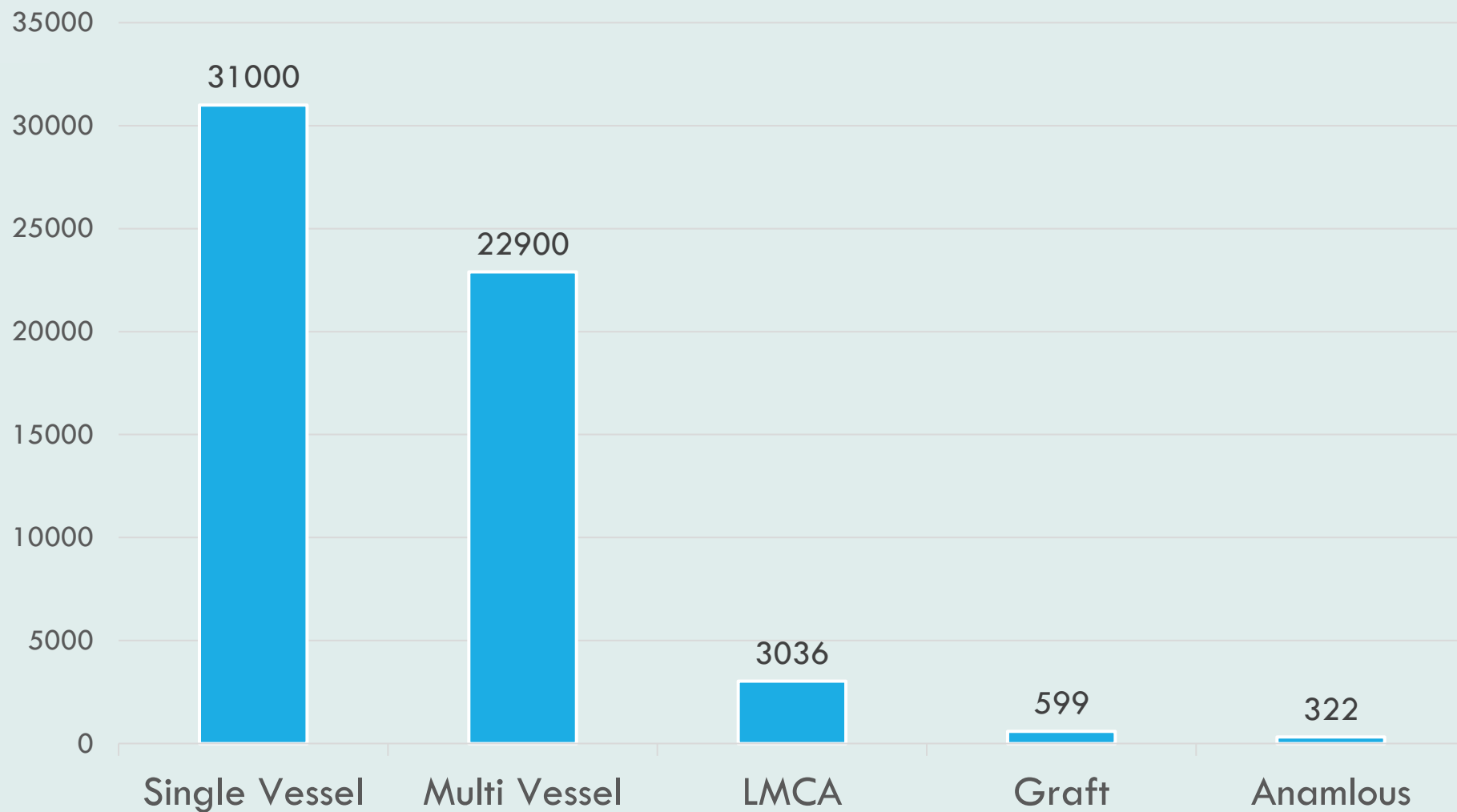
PROCEDURE APPROACH

	Number of Procedure	Percentage of Procedure
Femoral	14461	28.47%
Radial	35959	70.78%
Ulnar	381	0.74%



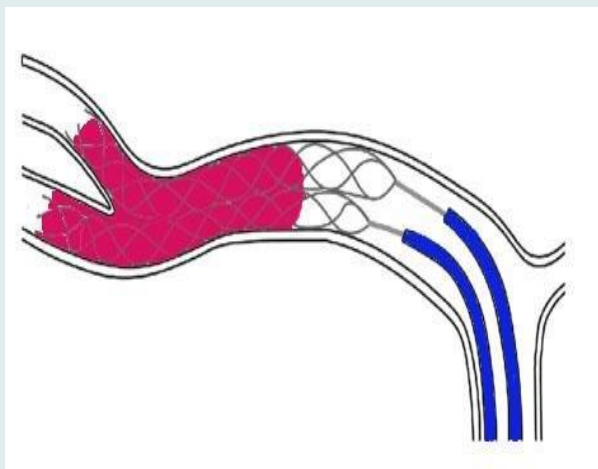


VESSELS TREATED





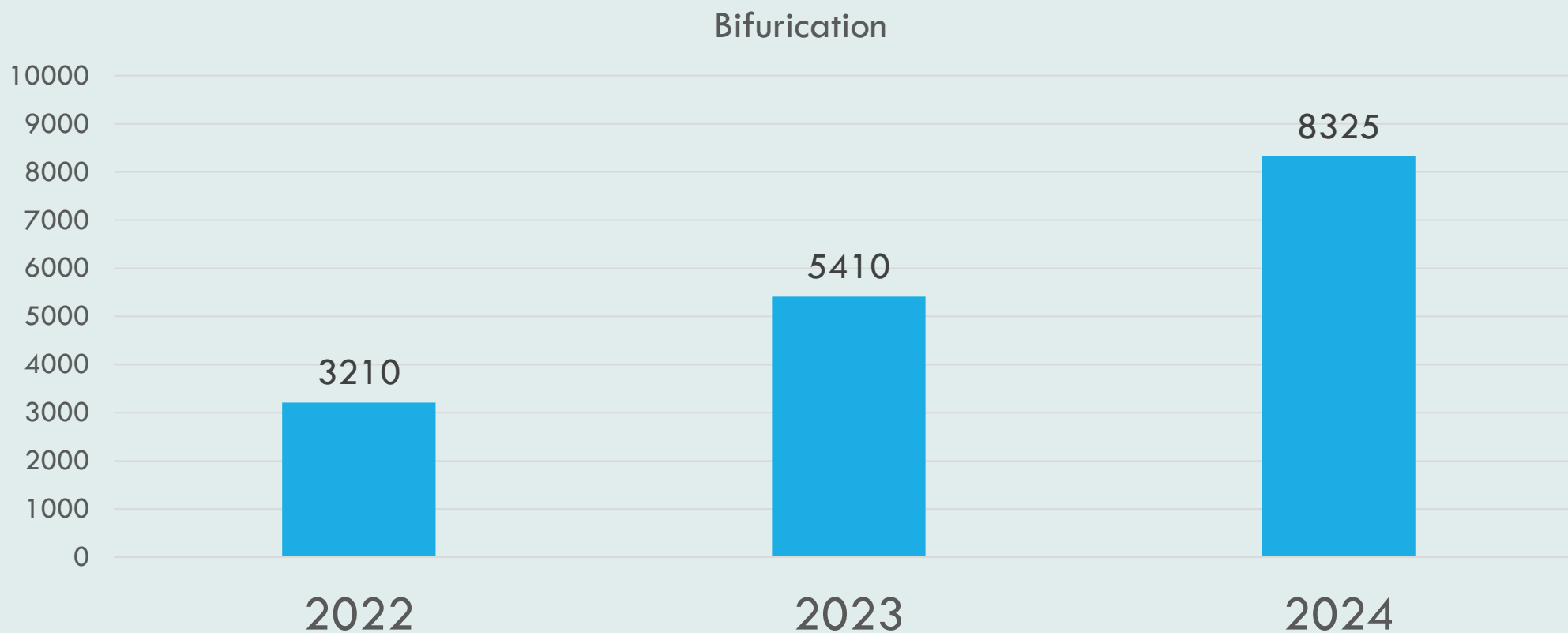
BIFURCATION PCI CASES--8325



Technique	Nos
Provisional Stenting	5269
T or TAP	677
Crush/Mini Crush	758
DK Crush	1047
Culotte	574

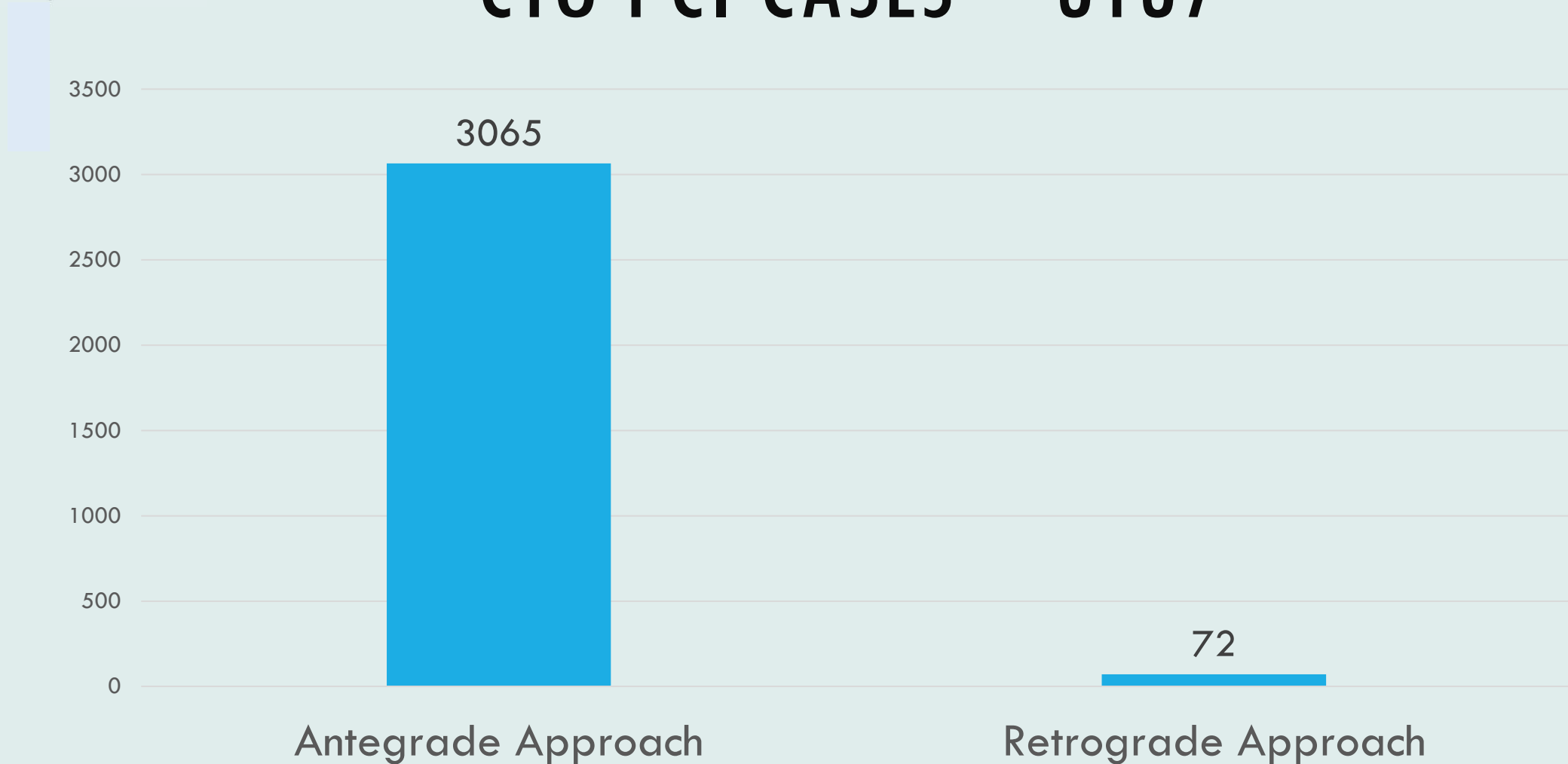


TRENDS IN BIFURCATION PCI





CTO PCI CASES -- 3137





CORONARY STENTS – TOP 10 PLAYERS

TOTAL NUMBER OF STENTS USED- 51931

Sl.No	Name	MARKET SHARE
1	ABBOTT –	21%
2	MEDTRONIC –	12.5%
3	MICROPORT –	9.7%
4	TERUMO –	9.5%
5	TRANSLUMINA –	8.3%



CORONARY STENTS – TOP 10 PLAYERS(CONTD.)

TOTAL NUMBER OF STENTS USED- 51931

Sl.No	Name	MARKET SHARE
6	MERRYL --	7.99%
7	BOSTON –	7.06%
8	SAHAJANAND –	5.6%
9	INNVOOLUTION –	4.5%
10	RELISYS --	2.8%



ADJUNCTIVE PHARMACOLOGY

Pharmacology	No. of Centres
Aspirin	98
Clopidogrel	57
Prasugrel	31
Ticagrelor	53



LABS HAVING FACILITY TO USE ADJUNCT DEVICES

Name	Number
Cath labs using Rotablator	41
Cath labs using FFR	50
Cath labs using IVUS/OCT	48
LASER installations	9

USE OF ADJUNCT DEVICES

IMAGING & PHYSIOLOGY

IVUS – 1856

OCT – 1154

FFR – 760

CALCIUM MODIFICATION

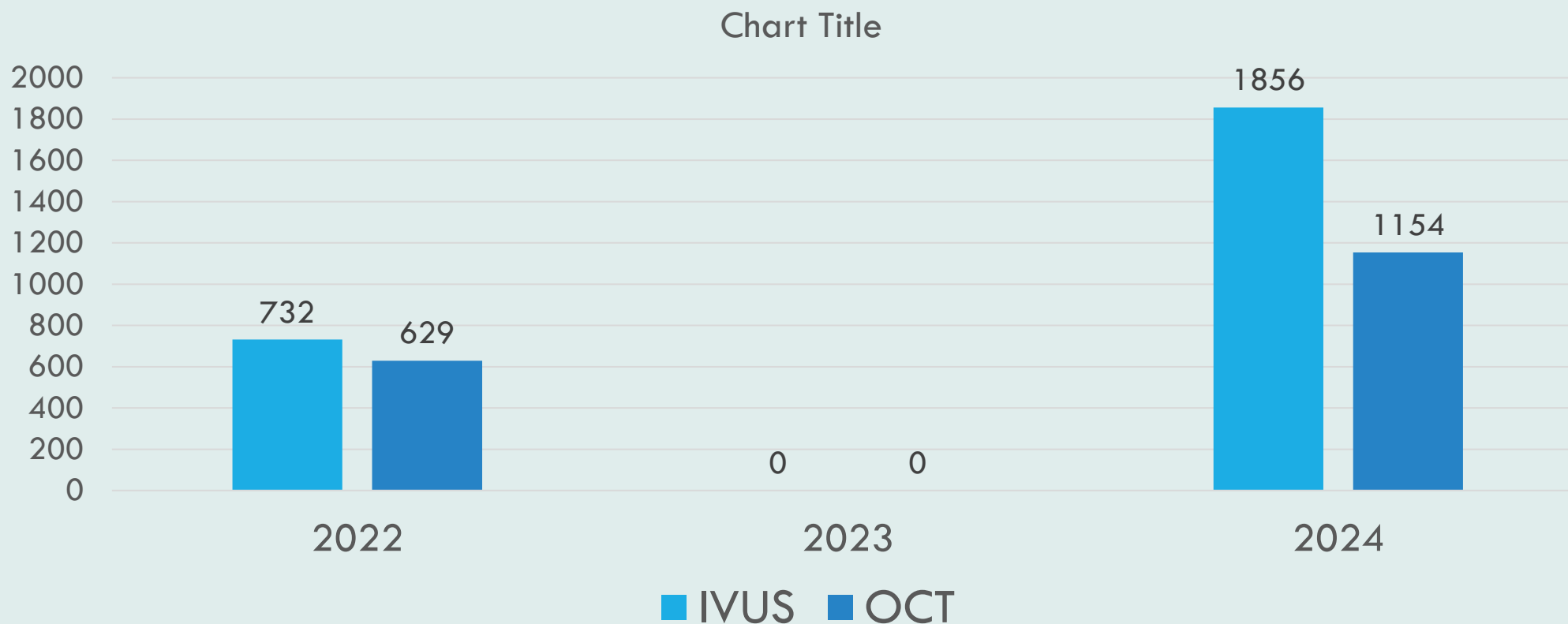
ROTABLATOR – 359

IVL – 173

LASER – 57



GROWTH OF IVUS / OCT COMPARED TO PREVIOUS YEARS

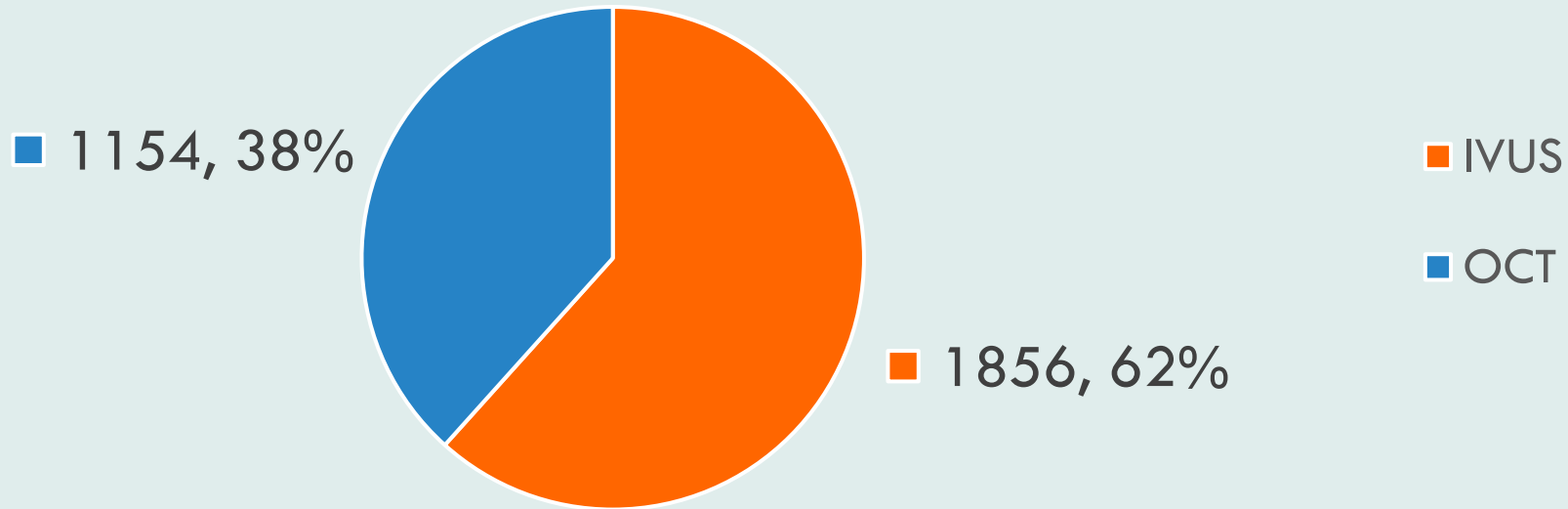




IVUS/OCT USE 2024

TOTAL NUMBER OF PCI IN HOSPITALS WITH IVUS/OCT FACILITY — 38755

TOTAL CASES USED IVUS/OCT — 3010 **(7.8%)**



Number of LMCA cases done in centres with IVUS/OCT facility — 2411/3036



FFR DETAILS

FFR Details	Total Number
LMCA	140
LAD	1157
LCX	598
RCA	778



STENT THROMBOSIS EVENTS -- 843(1.6%)

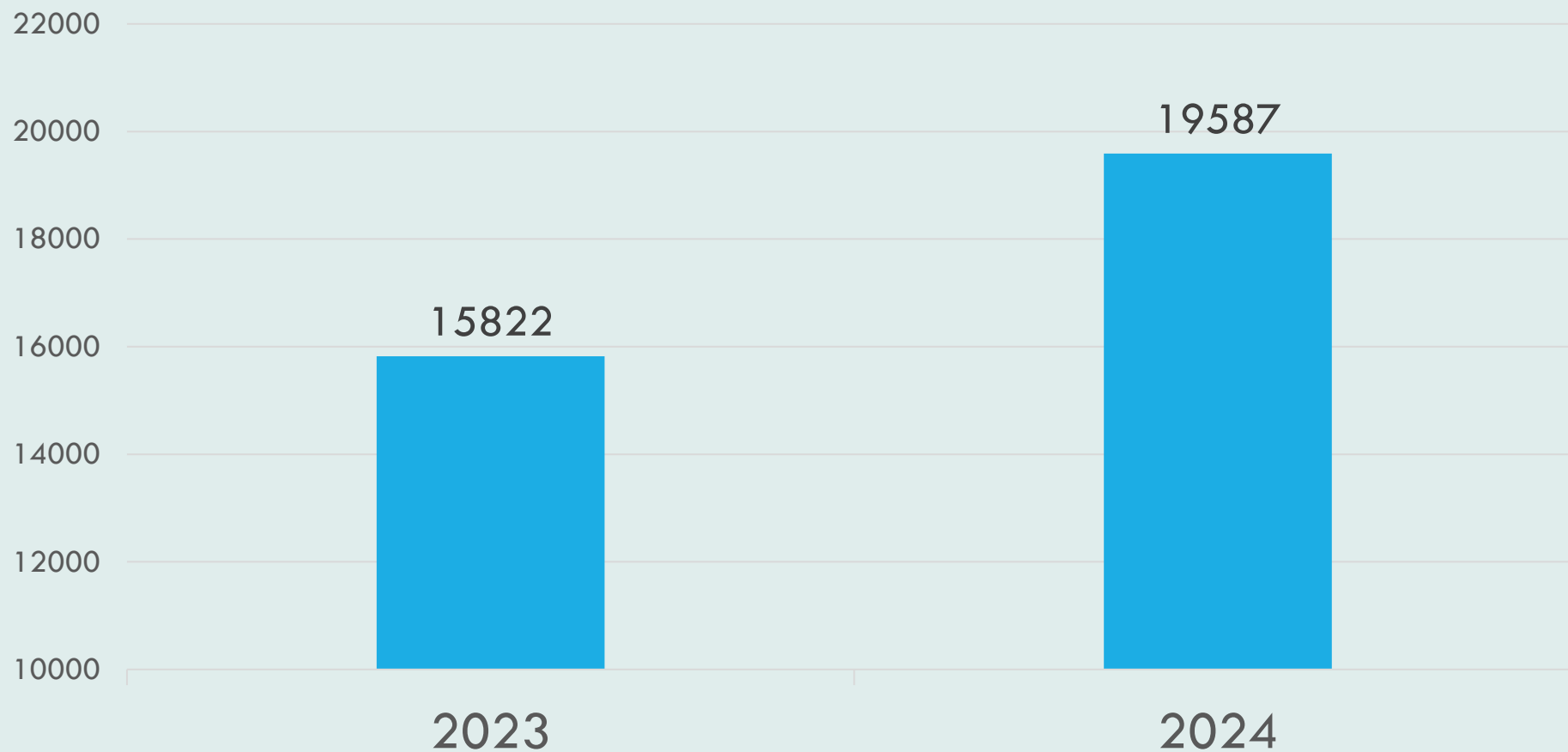
#	Approach	Number
1	POBA	513
2	Thrombus Aspiration	330
3	I/C lytics	16
4	II b/III a inhibitor	16
5	Abciximab	21
6	Eptifibatide	2
7	Tirofiban	625
8	Restented	180
9	BMS	19
10	DES	161



ACUTE MI DATA



NO OF AMI PATIENTS ADMITTED



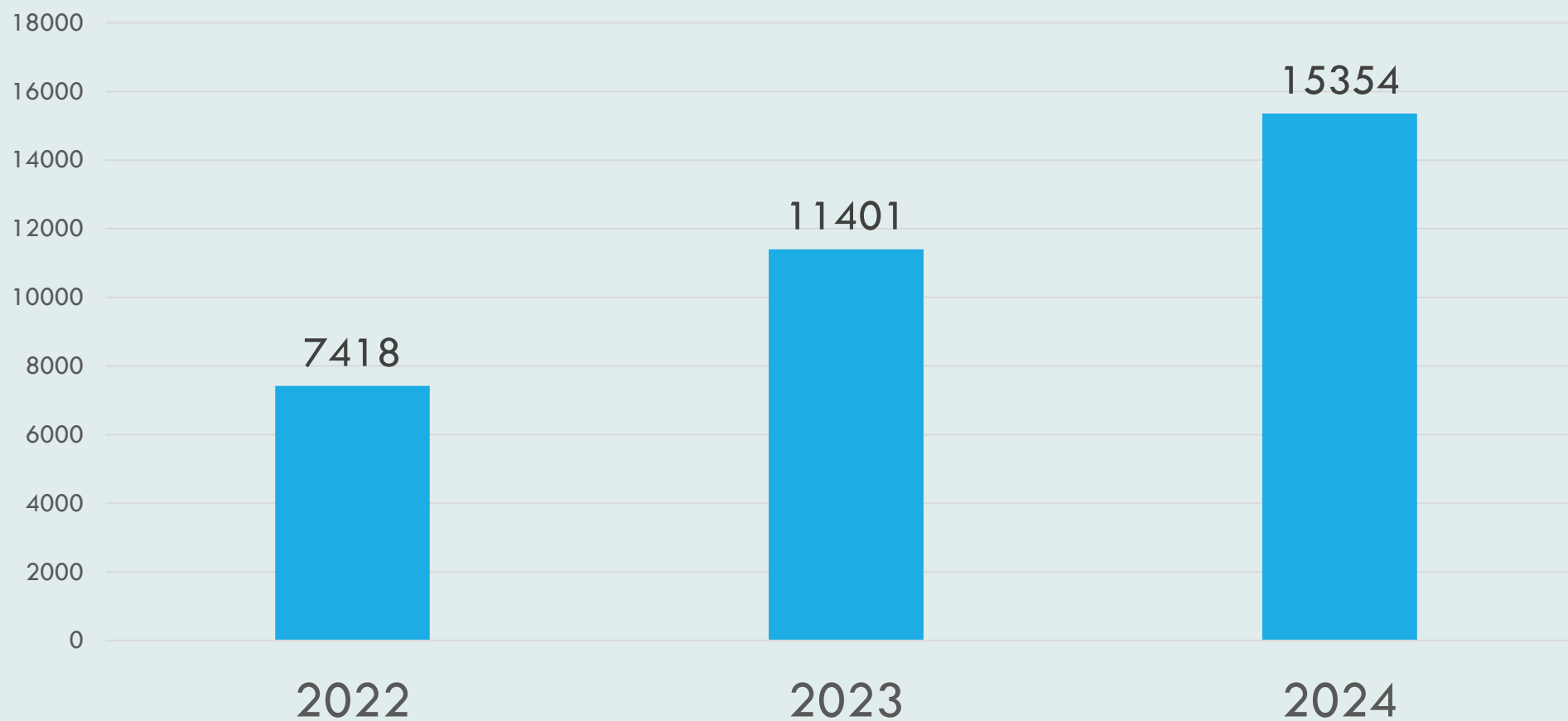


AMI PRESENTATIONS— KILLIP CLASS

	Presentations	Number of Cases
	Class I	838
	Class II	730
	Class III	279
	Class IV	193



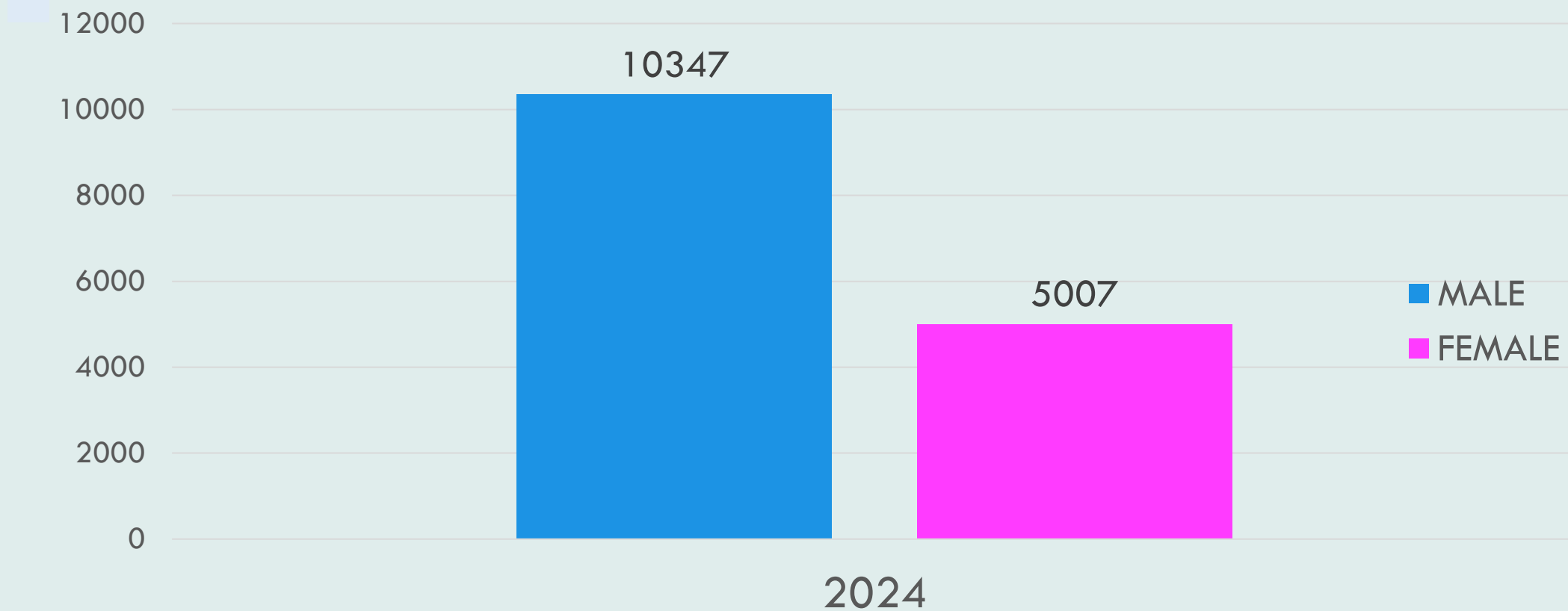
PRIMARY PTCA





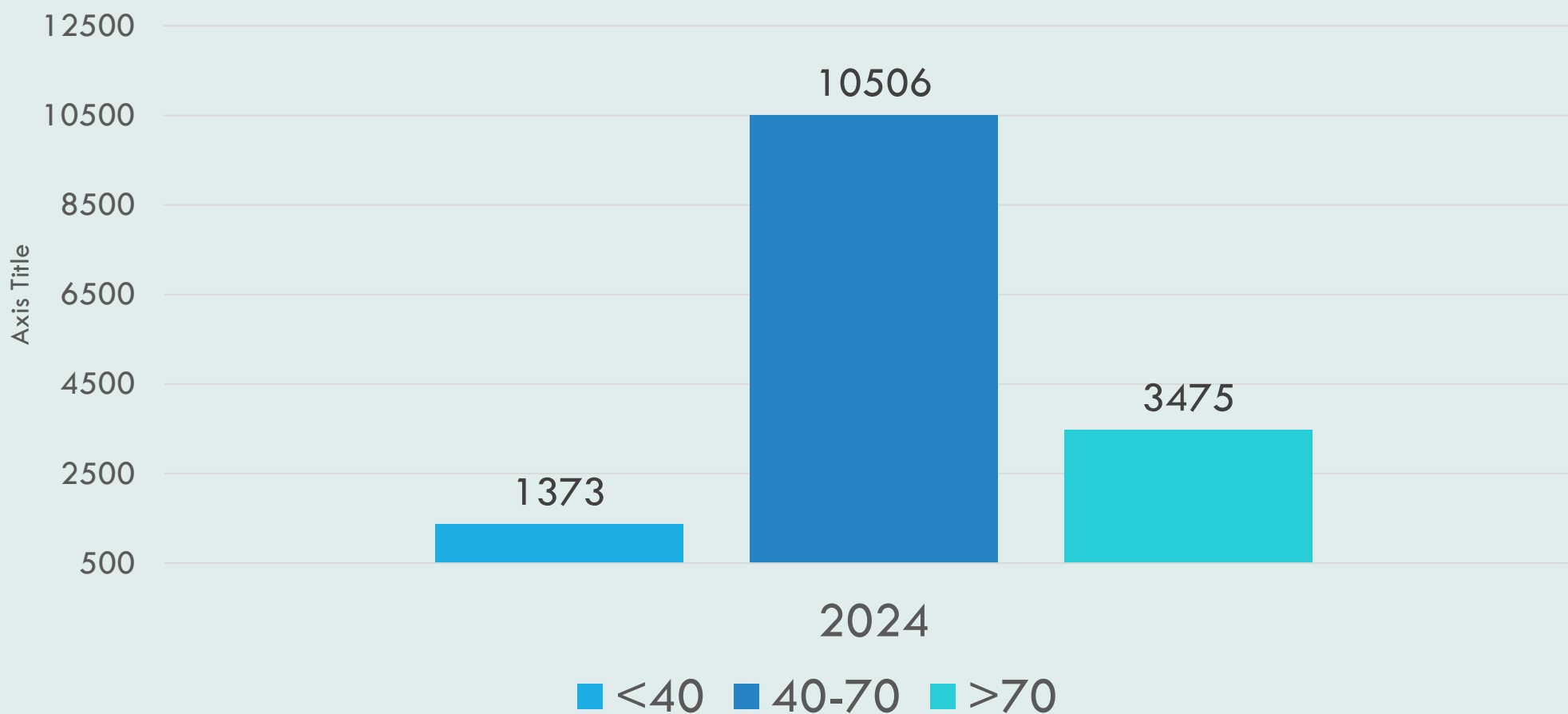
PAMI - DATA BASED ON GENDER

MALE – FEMALE RATIO





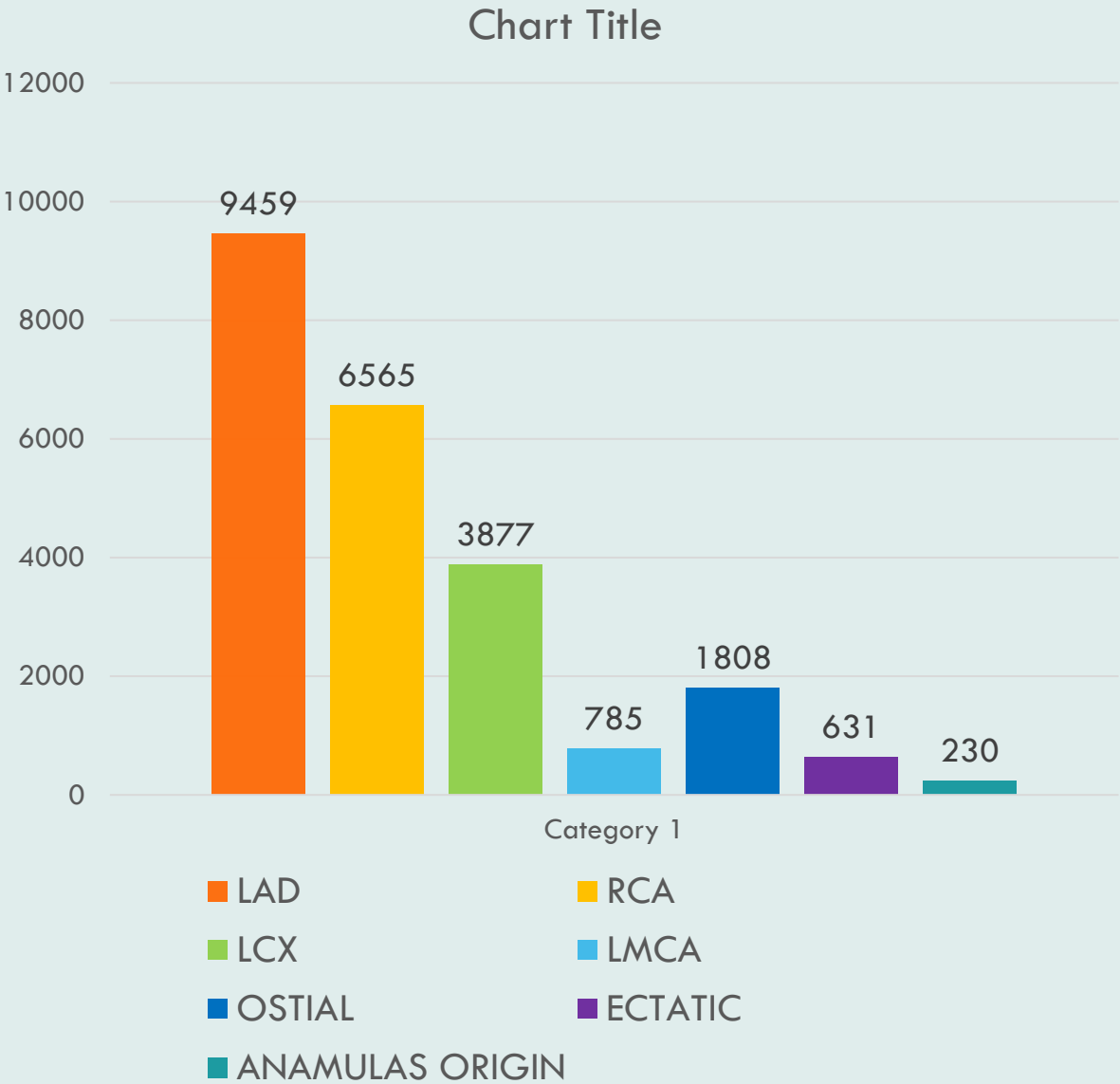
PAMI - DATA BASED ON AGE GROUP





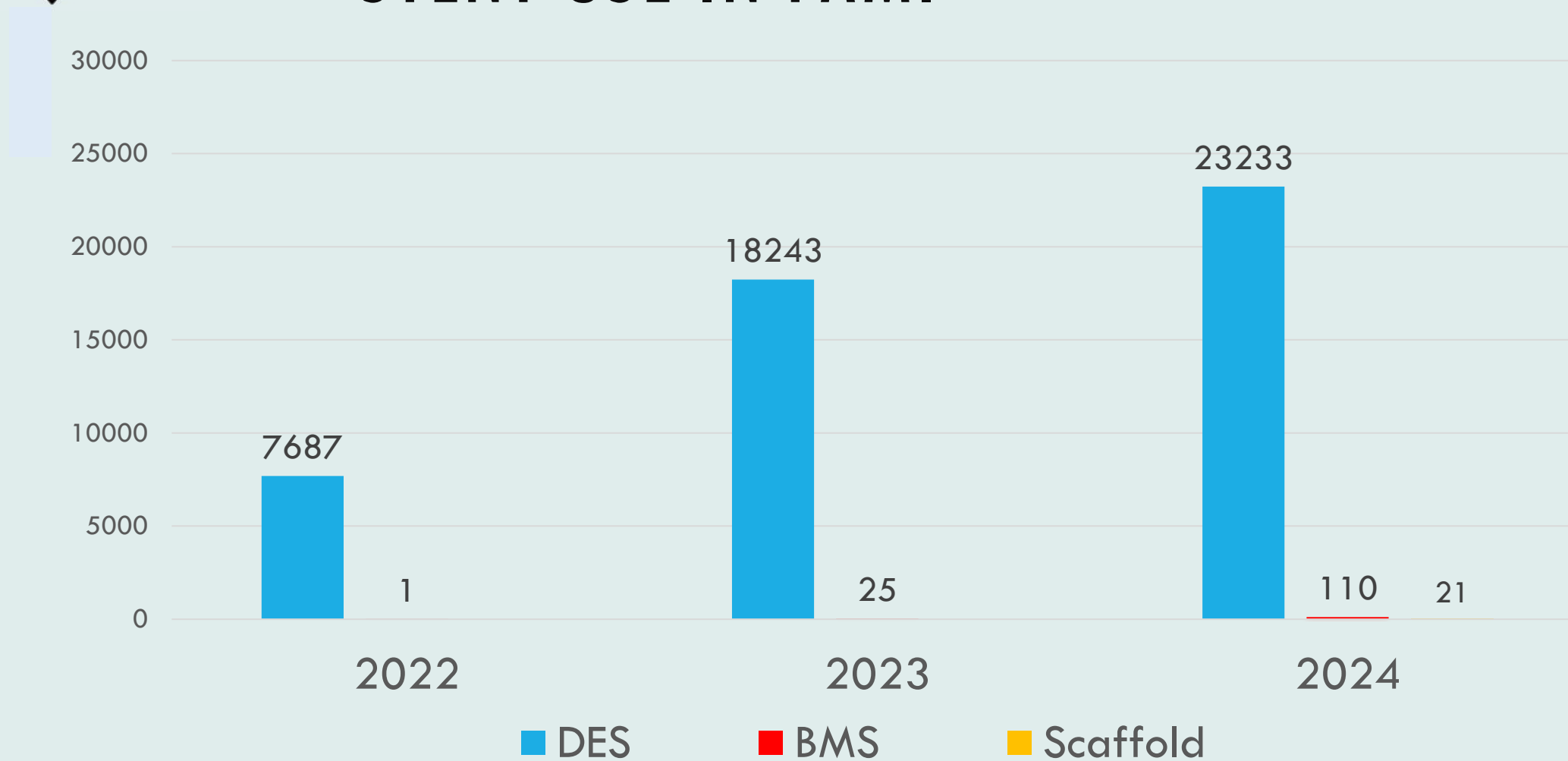
VESSELS DISTRIBUTION

Vessel Distribution	2024
LAD	40.47%
RCA	28.09%
LCX	16.59%
LMCA	3.37%
OSTIAL	7.78%
ECTATIC	2.71%
ANAMOLOUS ORIGIN	0.98%



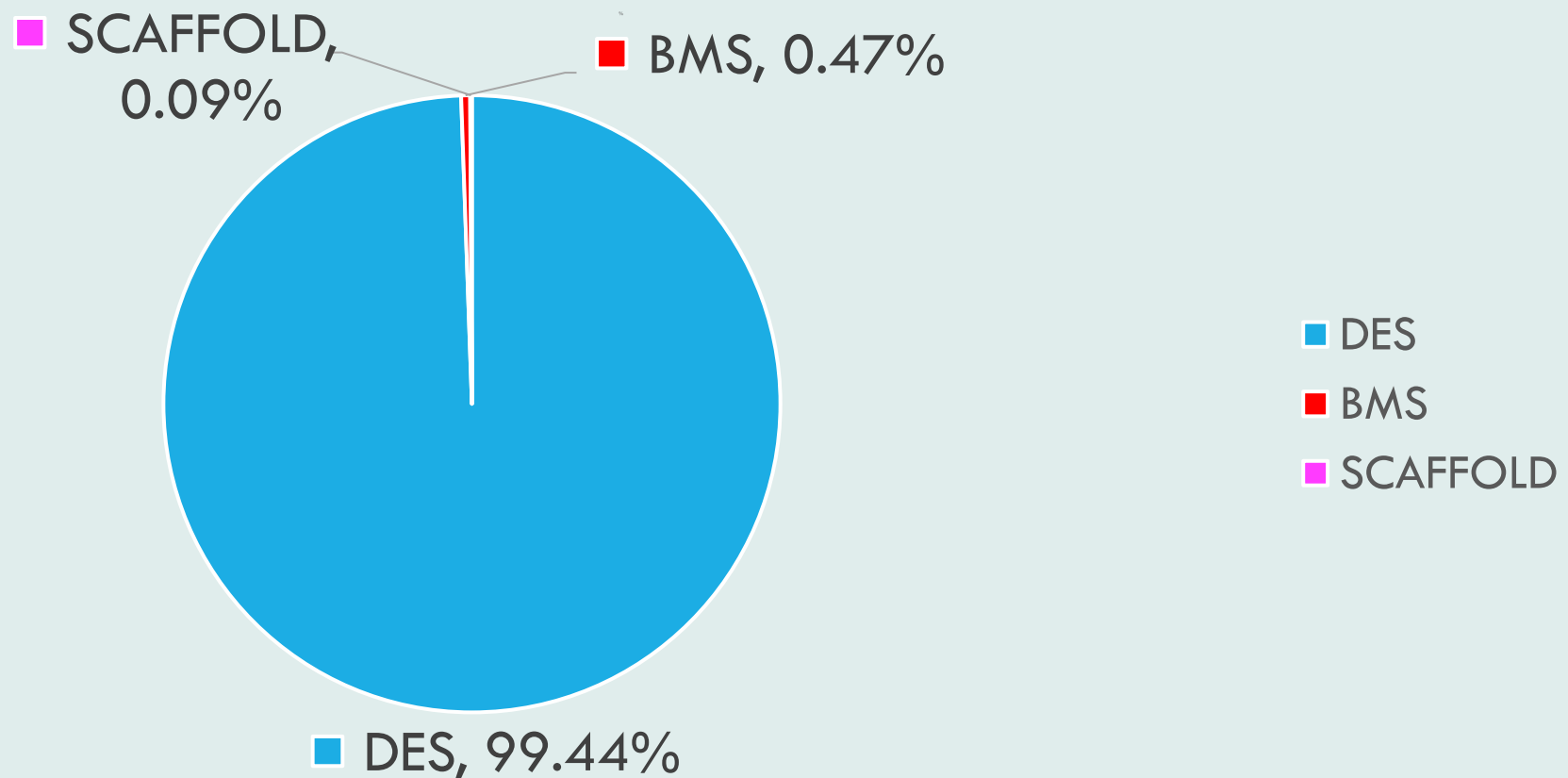


STENT USE IN PAMI





STENT USED IN PERCENTAGE



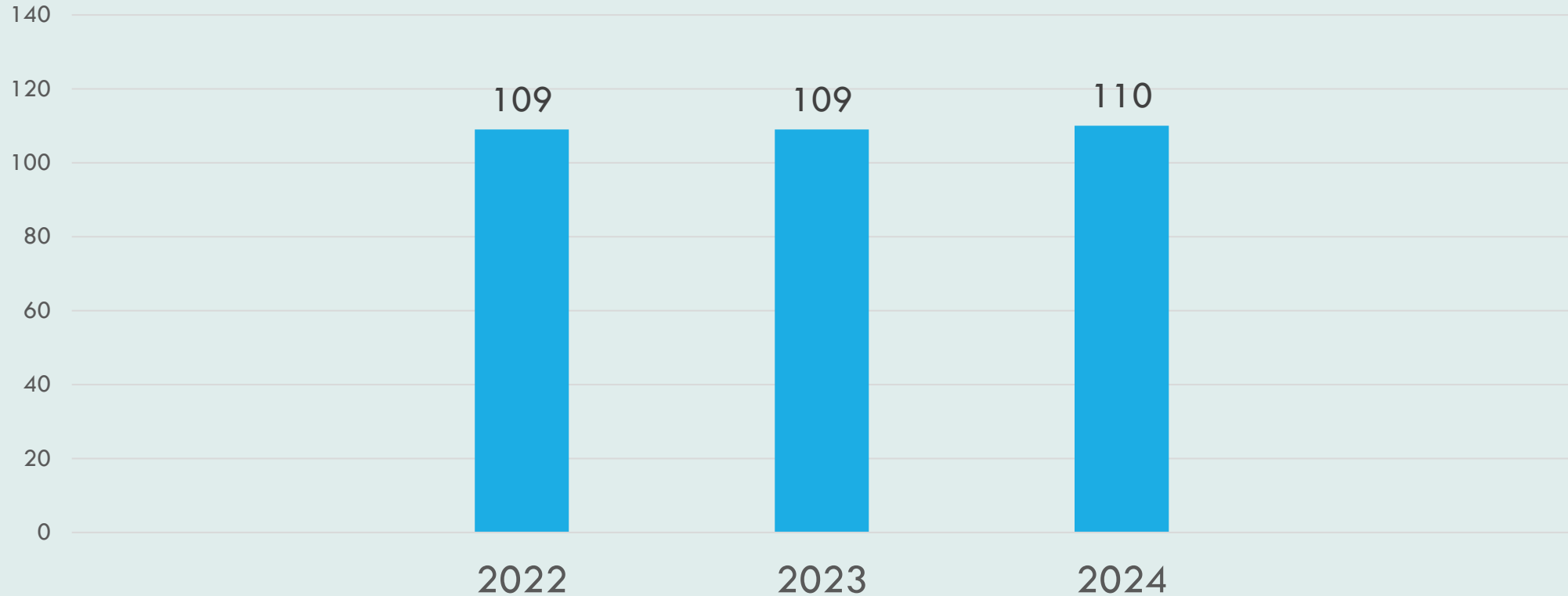


NON CULPRIT VESSEL PCI

When	Number
During PCI	292
Same Hospital Admission	977
Another Admission	441



MORTALITY IN HOSPITAL





VALVE INTERVENTIONS

Balloon Mitral Valvotomy – 87 Cases

Balloon Aortic Valvotomy – 38 Cases

Balloon Pulmonary Valvotomy – 83 Cases



VALVE INTERVENTIONS

TMVR - 3 Cases

Tricuspid Valve Intervention – 9 Cases

TAVI – 118 Cases

EVAR – 44 Cases



PERIPHERAL VASCULAR INTERVENTIONS

- ❖ Iliac - 317
- ❖ Femoro-popliteal - 750
- ❖ Carotid - 28
- ❖ Renal - 52



CONGENITAL HEART DISEASE

☐ ASD Device Closure – 690

☐ VSD – 91 Cases

☐ PDA – 227 Cases



TOP PERFORMING 5 CENTERS

1	Govt. Medical College Hospital, Kottayam
2	Govt. Medical College Hospital, Calicut
3	Govt. Medical College Hospital, Thiruvananthapuram
4	Lissie Hospital, Ernakulam
5	Govt. T.D. Medical college Alappuzha



TOP PERFORMER IN EACH DISTRICT

#	District	Center
1	Alappuzha	Govt. T.D.Medical College, Alappuzha
2	Ernakulam	Lissie Hospital, Ernakulam
3	Idukki	St. Mary's Hospital, Thodupuzha, Idukki
4	Kannur	Aster MIMS, Kannur
5	Kasaragod	Aramana Hospital and Heart Centre Kasaragod
6	Kollam	N S Memorial Institute of Medical Science, Kollam
7	Kottayam	Govt. Medical College Hospital, Kottayam
8	Kozhikode	Govt. Medical College Hospital, Calicut
9	Malappuram	Aster MIMS, Kottakkal, Malappuram
10	Palakkad	Rajiv Gandhi Co-Operative Hospital
11	Pathanamthitta	Parumala Cardiothoracic Centre & Research Institute
12	Thrissur	Govt. Medical College, Thrissur
13	Thiruvananthapuram	Govt Medical College, Thiruvanthapuram
14	Wayanad	Dr Moopens Institute of Medical Sciences



MAJOR HURDLES FACED.....

- ☐ CASUAL APPROACH TO DATA COLLECTION
- ☐ INERTIA ON THE PART OF PHYSICIAN/CATHLAB STAFF
- ☐ ERRORS IN DATA ENTRY
- ☐ INADEQUACY OF CURRENT FORMAT



SL No:..... / Center No..... / 202.....

ICCK REGISTRY FORM I BASAL DATA
(Marked in red - Confidential)

1	Initial Name & Hospital No.	A		B		
2	Address	PINCODE :				
3	Contact number (2 mobile numbers)	1.		2.		
4	Aadhaar number					
5	Socio-economic Status	APL		BPL		
6	Years of Schooling					
7	PCI cost	0. Pvt. Insurance	1. ESI	2. ECHS	3. Self	4. KASP
8	Age	Years				
9	Sex	0. Male	1. Female			
10	Diagnosis	STEMI	NSTEMI	ACS	CCS	
11	Patient presented	1. Directly to recruiting hospital		2. Transfer-in from another hospital		
12	Date of PCI					
13	Current smoker	0. Yes	1. No	Hypertension	0. Yes	1. No
14	Diabetes Melitus	0. Yes	1. No	Dyslipidemia (Known)	0. Yes	1. No
15	Prior Myocardial Infarction	0. Yes	1. No	 Year		
16	Prev CAG (> 50% stenosis)	0. Yes	1. No	LAD	LCX	RCA
17	Prior CABG/PCI	0. Yes	1. No	(Details:)		
18	Known CKD	0. Yes	1. No			
19	If STEMI :-					
	Total ischemic time (minutes)					
	Door to Balloon Time (minutes)					
	STEMI Diagnosis	1. Anterior	2. Inferior	3. Posterior(isolated)	4. Lateral(isolated)	
	Killip class	1	2	3	4	
20	Antiplatelet - ASA	0. Yes	1. No			
21	2 nd antiplatelet used	0. Clopidogrel		1. Prasugrel	2. Ticagrelor	
22	LVEF	%				
23	Any other cardiac diagnosis (Specify)	Valvular / Cardiomyopathy /				



SL No:..... / Center No..... / 202.....

ICCK REGISTRY FORM I BASAL DATA (Marked in red - Confidential)

1	Date of procedure	Date : / /					
2	Access	1. Radial		2. Femoral		3. Ulnar	
3	Type of PCI	Elective / Primary / Rescue					
4	Vessels and lesions (Tick if more than one vessel)	1 LAD Proximal / Mid / Distal - CTO / Bifurcation / Calcium/Osteal 2 LCX Proximal / Distal / RI - CTO / Bifurcation / Calcium/Osteal 3 RCA Proximal / Mid / Distal - CTO / Bifurcation / Calcium/Osteal 4 SVG 5 LEFT MAIN Ostium / Mid / Bifurcation 6 Others.....					
5	Guide catheter/s used (Tick if more than 1)	6F / 7F / 8F			6F / 7F / 8F		
6	Pre-PCI imaging	IVUS / OCT / NIL					
7	Pre-PCI Physiological assessment	Yes / No					
8	Direct stenting	Yes / No					
9	No of stents used						
10	Stent type	0. POBA		1. DES		2. BMS	
						3. BVS	
						4. DEB	
						5. Others	
11	Stent size	1 A. Diameter: B. Length: C.NA 2 A. Diameter: B. Length: C.NA 3 A. Diameter: B. Length: C.NA 4 A. Diameter: B. Length: C.NA 5 A. Diameter: B. Length: C.NA					
12	Bifurcation strategy	1 Vessel 1 - Provisional / Culotte / DK Crush / mini Crush / SKS / other 2 Vessel 2 - Provisional / Culotte / DK Crush / mini Crush / SKS / other					
13	Post-dilatation	0. Yes		1. No			
14	Post -PCI Gadgets	IVUS / OCT / Physiology					
15	Use of other gadgets	Rota / Orbital / IVL					
	a. Calcium modification	0.Yes		1.No			
	b. Guide extension	0.Yes		1.No			
	c. Thrombus aspiration	0.Yes		1.No			
	d. Distal protection	0.Yes		1.No			
	e. IABP / ECMO / IMPELLA	0.Yes		1.No			
16	PCI Outcome	TIMI 3 Flow		(Yes / No)			
17	Complications	Yes		No			
	If Yes, Specify	1. No reflow 2.Side branch occlusion 3.Perforation 4.Heart block needing pacing 5. Arrythmia 6.Edge dissection 7. Additional stenting 8. MI 9. Cardiac arrest resuscitated 10. Mortality					



CONCLUSIONS

- Participation has increased– scope for improvement
- Substantial increase in number of PCI performed
- Small decrease in trend in PCI in younger<40 and increase in elderly population>70
- Significant increase in use of imaging



THANKS TO.....

All Centres who have sent the data.

Boban Raj