



Annual Report 2022

CROP

Cath/PCI Registry

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FOREWORD

Dear Colleagues,

Please accept my congratulations on release of the annual report of the Cardiac Registry of Pakistan (CROP) at the Pakistan Live Interventional Cardiology Meeting 2022.

First, let me congratulate the management and the participants of CROP registry who have taken the initiative to look at quality of PCI care in a thoughtful manner. It is often said that “guidelines do not implement themselves”. To provide care to our patients that is guideline concordant, it requires measurement of quality and then thoughtfully synthesizing the data in the context of care that is provided. This then provides us with a good understanding of what are the opportunities for improvement. CROP being the first national registry of such kind in Pakistan provides that excellent opportunity to learn about how PCI related care is delivered and what are the opportunities to improve. Recent efforts towards publishing what we have learned from CROP is also remarkable in terms of making this knowledge available for others. Bravo!

Second, measurement of quality is the only the first step in quality improvement. The quality of PCI care that we deliver to our patients will only improve when we allow that data to “talk” and guide our decision making. I implore each one of you to take an initiative based on the presented data to start a quality improvement project at your institution. This will allow us to bring that culture of continuous quality improvement to our country which is so important. For those of you who have not yet joined this initiative, I urge you to join this initiative in the spirit of quality improvement.

Finally, the Tsunami of cardiovascular disease has already hit our region and our country. We would all agree that that the next few iterative waves of COVID-19 are going to be related to an increase in non-communicable diseases (NCD) related events due to deferred care, gaps in lifestyle and medication adherence, and a decrease in mental well being as a result of COVID-19. These iterative waves will make this Tsunami of cardiovascular diseases even worse than what it is today. We are already seeing this. We as cardiovascular clinicians therefore also have a responsibility to not just take care of acute cardiovascular conditions but to improve cardiovascular health and well being in our communities. We all can take small steps within our circle of influence to do what we can to improve the cardiovascular health in the communities that we belong to and the communities we serve.

Once again, my congratulations to all of you for the excellent work done in the past year using CROP. I am sure that the best is yet to come for the CROP registry!
I hope you all have a wonderful meeting.

Sincerely,

Salim S. Virani, MD, PhD, FACC, FAHA, FASPC
Chair, American College of Cardiology (ACC) Global Quality Solutions Workgroup
Immediate Past Chair, Prevention of Cardiovascular Diseases Section, ACC
Professor, Section of Cardiovascular Research
Director, Cardiovascular Disease Fellowship Training Program
Baylor College of Medicine
Staff Cardiologist, Michael E. DeBakey Veterans Affairs Medical Center
Investigator, Health Policy, Quality and Informatics Program
Michael E. DeBakey Veterans Affairs Medical Center HSR&D Center of Innovation
Houston, TX



MESSAGE

I am very pleased to proudly present the 3rd Annual report of the CROP-CathPCI Registry at the PSIC annual meeting- Pakistan Live 2022. Over ten years ago, we started the journey with our first cardiovascular database registry at Tabba Heart Institute (THI). Later in 2016, we started making efforts to make it a national cardiovascular database. Although it was a very long, tedious and daunting task but today, we are so pleased to witness the growth and fruitfulness of CROP-CathPCI Registry across the country. Now is the time that we focus on the quality rather than quantity. It's a well-established fact that data is the best tool to measure & improve patient care and once own and the institution's performance. Our goal is that CROP database will not only help us in research publications and put us on global map but will also help in making guidelines, & create awareness based on the findings of local/national data.

Third Annual report of CROP-CathPCI follows the five years trends (2017-2021) of quality metrics and confirms the importance of data in achieving high-quality cardiovascular outcomes. We believe that the registry will work as a "real-world" data-driven tool for assessing the appropriateness of coronary angiography and angioplasty practices in Pakistan and comparing our performance both nationally and internationally.

Supreme Court's endorsement of Cath Lab standards in which CROP- CathPCI Registry was made mandatory for every cardiac Cath Lab (CCL) in the country, helped in implementation of CROP-CathPCI all over the country. It was a herculean task to register every CCL and provide training for data collection and data entry using the online data collection tool. However, our CROP team under the guidance of Rehan Malik has managed all the registration & training processes efficiently & promptly despite Covid-19 challenges. We successfully conducted hands-on training sessions from Karachi to Swat to enhance the capabilities of our CathPCI-Registry participants. One hundred seventeen CCL have been enrolled in the CROP-CathPCI Registry.

We have now established the Steering Committee of CROP-CathPCI Registry, which includes members from the Pakistan Cardiac Society (PCS), Pakistan Society of Interventional Cardiology, and other prestigious participating institutions around the country. The committee will hold quarterly meetings to develop policies & guidelines for research & publication, and most importantly guidelines and procedures to improve data quality. ACC NDCR team has been very graciously helping us in developing policies and procedures of CROP-CathPCI registry.

I am very grateful to Society of Cardiovascular Angiography and Interventions (SCAI), American College of Cardiology (ACC), and National Cardiovascular Database Registry (NDCR) – ACC-CathPCI database team for their constant support, guidance and recognition of CROP-CathPCI Registry. I would also like to thank Health Research Advisory Board and Pharmedo for their unconditional and unrestricted financial support and guidance in providing the infrastructure and human resource as and when required in participating institutions. Special thanks to Rehan Malik, the CROP Program Manager, who has worked incredibly hard to make it happen.

Sincerely,

Bashir Hanif, MD, FACC, FSCAI

Director CROP

Governor Elect, ACC Pakistan Chapter

Past President, Pakistan Society of Interventional Cardiology

Dean, Faculty of Cardiology, College of Physicians and Surgeons Pakistan (CPSP)

Member ACC NCDR Cath PCI Steering Committee

Member SCAI International Committee

Member SCAI Education Committee

Associate Course Director, AICT-Asia PCR

Course Director, Pakistan Live



MESSAGE

It is our great pleasure to present the third annual report of the CROP CathPCI Registry, which is the first & the largest cardiovascular database registry in Pakistan.

Angiography and angioplasty procedures have become more common in Pakistan especially with the Government's assistance through Sehat Sahulat Program. Cardiovascular disease remains the leading cause of death in Pakistan and the rest of the globe. Health care data is extremely important for healthcare providers as it provides the framework to devise healthcare policy and guidelines. It also helps to assess and enhance the quality and safety of patient care as well as monitor outcomes. Clinical Registries/Databases have become the modern tool for centralized data collection, reporting, and performance evaluation.

CROP is a very well-organized cardiovascular database registry that is being run as per the international standards with the guidance & support of American College of Cardiology National Cardiovascular Data Registry (NCDR) team. CROP is an excellent platform providing multiple opportunities to improve cardiovascular care all over Pakistan.

Dr. Bashir Hanif, the National Director of CROP, and the team has worked very hard and consistently and very strongly supported cardiovascular disease data collection in the form of Cardiac Registry of Pakistan (CROP) that will eventually help in collecting high-quality, real-time outcome data.

Nothing can describe importance of database registries than this quote:

“Science tells us what we can do; Guidelines tells us what we should do; Registries tells us what we're actually doing.

Sincerely,

Rehan Malik, DPH, MBA (Healthcare)
Program Manager, CROP
Country Coordinator Pakistan - GHATI, ACC

INTRODUCTION:

The Cardiac Registry of Pakistan (CROP) was introduced in 2016 as a national cardiovascular database. The purpose of CROP is to serve healthcare providers in the specialty of cardiology in devising the policies, determine outcomes and improve patient care. The registry covers both public and private hospitals and provides information on the quality and efficacy of cardiovascular healthcare in Pakistan.

CROP, CathPCI Registry collects the data on cardiac procedures (diagnostic catheterization) and devices (stents, balloons) to improve procedure related outcomes. CROP, CathPCI Registry data makes it possible to compare hospitals' performance to one another, making it a useful tool for identifying the cardiovascular gaps whose performance below the standards. Furthermore, the registry support's assessments of general adherence to international standards of care and evidence-based guidelines.

CROP, CathPCI Registry is now the first & the largest cardiovascular database registry in the country. CROP has been accepted and endorsed by the supreme court of Pakistan and the healthcare commissions of Pakistan as a valuable tool to collect the data about cardiac procedures and equipment especially the stents.

CROP, CathPCI Registry was initially developed and started by Tabba Heart Institute as single center database. However later it was decided to involve other centers all across Pakistan and make it a national database. Leadership of CROP took Pakistan Society of interventional Cardiology (PSIC) and Pakistan Cardiac Society (PCS) on board. Initial technical and logistic support was provided by Health Research Advisory Board (HealthRAB) with an unrestricted grant from PharmEvo.

In addition to CROP - Cath PCI and ACS Registry, that has been already started, several other registries are planned to be started very soon. Heart Failure Registry has also been started in association with the Pakistan Cardiac Society.

CROP Data Quality Control

To promote standardized data collection, data coding definitions are made available to all sites.

The CROP online data entry system features mandatory fields and validation rules integrated to reduce data entry errors

Plan to schedule Annual meetings that provide a forum to meet and engage, promoting an important communication network among the CROP community

Web-based data entry access is password protected to trained personnel at each hospital

Comprehensive hands- on training provided to all sites prior to beginning of data collection.

Data checks by local cardiologist responsible for the data quality of data collection

All system users receive regular emails and WhatsApp messages for reminders, updates, and explanation of new or existing information.

The implementation of a benchmarking comparison report between the sites is currently planned.

CROP, CathPCI Registry Steering Committee



Dr. Bashir Hanif

Chariman

Tabba Heart Institute, Karachi



Dr. Salim S Virani

Registry Research and
Publication subcommittee chair

Baylor College of Medicine, Houston



**Professor Maj. Gen
(R) Sohail Aziz Khan**

Member

President, Pakistan Cardiac Society



Dr. Oma Aziz Rana

Member

Omar Hospital & Cardiac Center, Lahore



Dr. Nauman Naseer

Member

Bahria International, Lahore



Dr. Kamran Babar

Member

Buch International Hospital, Multan



Dr. Akhtar Ali Bandeshah

Member

PIMS, Islamabad



Dr. Tariq Abbas

Member

Multan Institute of Cardiology, Multan



Dr. Faisal Ahmed

Member

Liaquat National Hospital, Karachi



Dr. Javaid Majid Tai

Member

Aga Khan University Hospital, Karachi



Dr. Asaad A. Khan

Member

Liaquat National Hospital, Karachi



Dr. Jabbar Ali

Member

Lady Reading Hospital, Peshawar



Dr. Rafi Ullah Jan

Member

Peshawar Institute of Cardiology, Peshawar



Mr. Rehan Malik

Coordinator Steering Committee

Program Manager, CROP

CROP PARTICIPANTS

SINDH REGION

Participating institutes	City	Region	Registry Incharge
Tabba Heart Institute	Karachi	Sindh	Dr. Shakir Lakhani
ISRA University Hospital	Hyderabad	Sindh	Dr. Sharwan Kumar
The Indus Hospital	Karachi	Sindh	Dr. Sajid Dhakam
Bahria International, Karachi	Karachi	Sindh	Dr. Yasir Paracha
Liaquat University Hospital	Hyderabad	Sindh	Dr. Kashif Sheikh
United Hospital	Karachi	Sindh	Dr. Abdus Samad
National Institute of Cardiovascular Disease(NICVD), Lyari	Karachi	Sindh	Dr. Tahir Sagheer/Dr. Javed A Sial
National Institute of Cardiovascular Disease(NICVD)	Hyderabad	Sindh	Dr. Tahir Sagheer/Dr. Javed A Sial
National Institute of Cardiovascular Disease(NICVD)	Larkana	Sindh	Dr. Tahir Sagheer/Dr. Javed A Sial
National Institute of Cardiovascular Disease(NICVD)	Mithi	Sindh	Dr. Tahir Sagheer/Dr. Javed A Sial
National Institute of Cardiovascular Disease(NICVD)	Tando M. Khan	Sindh	Dr. Tahir Sagheer/Dr. Javed A Sial
National Institute of Cardiovascular Disease(NICVD)	Nawabshah	Sindh	Dr. Tahir Sagheer/Dr. Javed A Sial
National Institute of Cardiovascular Disease(NICVD)	Sehwan	Sindh	Dr. Tahir Sagheer/Dr. Javed A Sial
National Institute of Cardiovascular Disease(NICVD)	Sukkur	Sindh	Dr. Tahir Sagheer/Dr. Javed A Sial
National Institute of Cardiovascular Disease(NICVD)	Kharipur	Sindh	Dr. Tahir Sagheer/Dr. Javed A Sial
Patel Hospital	Karachi	Sindh	Dr. Shamim Siddiqui
Ziauddin Hospital, Clifton	Karachi	Sindh	Dr. Ghulam Hussain Soomro
Ziauddin Hospital, North Campus	Karachi	Sindh	Dr. M. Jawaid Ansari
Civil Hospital, Karachi	Karachi	Sindh	Dr. Nawaz Lashari
Memon Medical Institute	Karachi	Sindh	Dr. Jagdeesh Kumar Budhani
Liaquat National Hospital	Karachi	Sindh	Dr. Imran Khan Sandeelo
Karachi Institute of Heart Diseases	Karachi	Sindh	Dr. Raffat Sultana
Medicare Cardiac & General Hospital	Karachi	Sindh	Dr. Sehar Tariq
South City Hospital	Karachi	Sindh	Dr. Sajid Dhakam
Dow Institute of Cardiology (DUHS)	Karachi	Sindh	Dr. Tariq Farman
Orthopeadic and Medical Institute (Pvt) LTD	Karachi	Sindh	Dr. Umair Abrar
The Aga Khan University Hospital	Karachi	Sindh	Dr. Javed Tai
National Medical Center	Karachi	Sindh	Dr. Tariq Ashraf
Pir Abdul Qadir Shah Jilani institute of Medical Sciences (PAQSJIMS)	Gambat	Sindh	Dr. Ashique Ali



CROP PARTICIPANTS

PUNJAB REGION

Participating institutes	City	Region	Registry Incharge
Shaikh Zayed Hospital, Lahore	Lahore	Punjab	Dr. Qazi Saboor
Army Cardiac Centre, Lahore	Lahore	Punjab	Dr. Nadir Khan
Multan Institute of Cardiology	Multan	Punjab	Dr. Tariq Abbas
Jinnah Hospital, Lahore	Lahore	Punjab	Dr. Zubair Akram
Cardiac Complex Bahawalpur (CCB)	Bahawalpur	Punjab	Dr Shahadat Hussain
Bahria International Hospital, Lahore	Lahore	Punjab	Dr. Nauman Naseer
Shalamar Hospital, Lahore	Lahore	Punjab	Dr. Kamran Babar
Rawalpindi Institute of Cardiology	Rawalpindi	Punjab	Dr. Asim Javed
Shaikh Zayed Hospital, RYK	Rahim Yar Khan	Punjab	Dr. Aamir Javed
Faisalabad Institute of Cardiology	Faisalabad	Punjab	Dr. Muhammad Yasir
Doctors Hospital, Lahore	Lahore	Punjab	Dr. Shahryar Sheikh
Omar Cardiac Hospital	Lahore	Punjab	Dr. Omar Aziz Rana
Mayo Hospital, Lahore	Lahore	Punjab	Dr. Haroon Baber
Evercare hospital, Lahore	Lahore	Punjab	Dr. Amber Malik
Ittefaq Hospital Trust	Lahore	Punjab	Dr. Asim Riaz
Abwa Heart Center	Faisalabad	Punjab	Dr.M. Hussain Gilani
Gulab Devi Hospital	Lahore	Punjab	Dr. Imran Hanif Hashmi
Hameed Latif Hospital, Lahore	Lahore	Punjab	Dr. Ahmed Raza
Lahore Medical Complex & The Heart Hospital	Lahore	Punjab	Dr. Augangzeb Siddiqui Maan
Siddique Sadiq Trust Hospital.	Gujranwala	Punjab	Dr. Muhammad Asghar
Imran Idrees Teaching Hospital	Sialkot	Punjab	Dr. Iftikhar Anwar
Rehmatul-Lil-Alameen Institute of Cardiology	Lahore	Punjab	Dr. Azmat Ehsan qureshi
Ghazala Hospital & Cardiac Center	Sheikhupura	Punjab	Dr. Ahmad Hassan
Avicenna Medical & Dental College/Hospital (AMDCH)	Lahore	Punjab	Dr. Faraz Ahmad
Sadiq Hospital, Sargodha	Sargodha	Punjab	Dr. Gul Shan Ahmed
Layyah Cardiac Center & General Hospital	Layyah	Punjab	Dr. Sajjad Ahmed Kharal
Khatam-un-Nabiyeen Heart Centre	Sargodha	Punjab	Dr. Asif Nazir
Wazirabad Institute of Cardiology	Wazirabad	Punjab	Dr. Rao A. Shazad Tayyab
Hearts International Hospital	Rawalpindi	Punjab	Dr. Asad Islam
Fauji Foundation Hospital	Rawalpindi	Punjab	Dr. Maj. Gen. Dr. Sohail Aziz
Tahir Heart Institute	Chiniot	Punjab	Dr. MMH Nuri
Punjab Institute of Cardiology	Lahore	Punjab	Dr. Khurram Shahzad
Central Hospital	Sargodha	Punjab	Dr. Fida Muhammad
Niazi Medical & Dental College (VIP, Niazi Complex)	Sargodha	Punjab	Dr. Abdul Ghafoor Niazi
Farooq Hospital West Wood Branch	Lahore	Punjab	Dr. Asma Sharif
Cheema Heart Complex	Gujranwala	Punjab	Dr. M. Azam Cheema
Shareef Medical City Hospital	Lahore	Punjab	Dr. M Kashif Zafar
Hajra Bibi Institute of Cardiology	Lahore	Punjab	Dr. Amber Malik
Bahria International Hospital	Rawalpindi	Punjab	Brig (R) Prof Dr Muhammad Qaisar Khan
Obaid Noor Hospital	Mianwali	Punjab	Dr. Rehana
Cardiac Centre, Heart Foundation Trust	Faisalabad	Punjab	Dr. M. Javed Iqbal
Medicare Hospital Pvt. LTD.	Multan	Punjab	Dr. Mehdi Hassan Mumtaz
Bahawalpur Heart Center	Bahawalpur	Punjab	Dr. Muhammd Umar Iqbal
Central Park Teaching Hospital	Lahore	Punjab	Dr. Naresh Kumar Khurana
Mubarak Hospital	Sargodha	Punjab	Dr. Adnan Ahmed Makhdoom
Mega Medical Complex	Rawalpindi	Punjab	Dr. Hesham Naeem
Khidmat e Khaliq Citizen Community Board, Toba Tek Singh	Toba Tek Singh	Punjab	Dr. M Salman Ather
Bilal Hospital	Rawalpindi	Punjab	Dr. Imran Iftikhar
Jhelum Cardiac Center	Jhelum	Punjab	Dr. Muhammad Saleem
Buch International Hospital	Multan	Punjab	Dr. Kamran Babar
National Hospital & Medical Center	Lahore	Punjab	Dr. M. Sarwar
Al Noor Hospital	Pasrur	Punjab	Dr. Ephraim Sheraz
Lahore Care Center	Lahore	Punjab	Dr. Kashif Sultan
Al Razi Hospital	Lahore	Punjab	Dr. Zameer Ul Asr
Ali Fatima	Lahore	Punjab	Dr. Rasheed



CROP PARTICIPANTS

ICT-KPK REGION

Participating institutes	City	Region	Registry Incharge
PIMS, Islamabad	Islamabad	ICT	Dr. Akhtar Ali Bandeshah
Shifa International, Islamabad	Islamabad	ICT	Dr. Asad Saleem
Kulsum International Hospital	Islamabad	ICT	Dr. Maj. Gen. Dr. Sohail Aziz
Medikay Cardiac Centre	Islamabad	ICT	Dr. Mujtaba Ahmed Kayani
Advanced International Hospital	Islamabad	ICT	Dr. Imran Ghani
Farooq Hospital	Islamabad	ICT	Dr. Imran Ghani
Lady Reading Hospital, Peshawar	Peshawar	KPK	Dr. Jabbar
North West General Hospital, Peshawar	Peshawar	KPK	Dr. Ahmed Fawad
Hayatabad Medical Complex, Peshawar	Peshawar	KPK	Dr. Medmood Ul Hassan
Peshawar Institute of Cardiology	Peshawar	KPK	Dr. Rafi Ullah Jan
Peshawar Medical College & Kuwait teaching hospital	Peshawar	KPK	Dr. Abdur Rauf
Kings International Hospital & Cardiac Center	Saidu Sharif, Swat	KPK	Dr. Javaid Bacha
Peshawar Institue of Medical Sciences(PIMS)	Peshawar	KPK	Dr. Tariq Hamayun
Afridi Medical Complex	Peshawar	KPK	Dr.Samiullah Shahbaz
Fauji Foundation Hospital & Cardiac Family	Peshawar	KPK	Dr. Muhammad Irfan
Swat Institute of Medical Sciences & Research Center	Saidu Sharif, Swat	KPK	Dr. Abdul Hadi
Saidu Group of Teaching Hospital (SGTH)	Saidu Sharif, Swat	KPK	Dr. Hafiz ur Rahman
Qazi Hussain Ahmed Medical Complex	Nowshera	KPK	Dr Iqtidar Uddin
Maqsood General Hospital	Peshawar	KPK	Dr. Hikmatullah Jan
Mardan Interventional Cardiac Centre	Mardan	KPK	Dr. Asfandiyar
Bannu International Hospital	Bannu	KPK	Dr. Samiullah Khan
Swat Medical Complex Teaching Hospital	Swat	KPK	Dr. Hafiz ur Rahman
MTI, Ayub Teaching Hospital	Abbottabad	KPK	Dr. Imran Khan
Yahya Hospital	Haripur	KPK	Dr. Col. Shahid Abbas
Shahab Orthopedic & General Hospital	Peshawar	KPK	Dr. Hafeez Ullah
M. Sardar Khan Memorial Hospital	Swabi	KPK	Dr. Ibrahim Shah
Anwar Hospital	Saidu Sharif, Swat	KPK	Dr. Iftikhar Ahmed
Medirect International Hospital	Temargara	KPK	Dr. M. Rehan-ul-Haq
Rehman Medical Institute	Peshawar	KPK	Dr. Miqdad Ali Khan
Lugman International Hospital	Saidu Sharif, Swat	KPK	Dr. Muhammad Ilyas



CROP PARTICIPANTS

BALUCHISTAN REGION

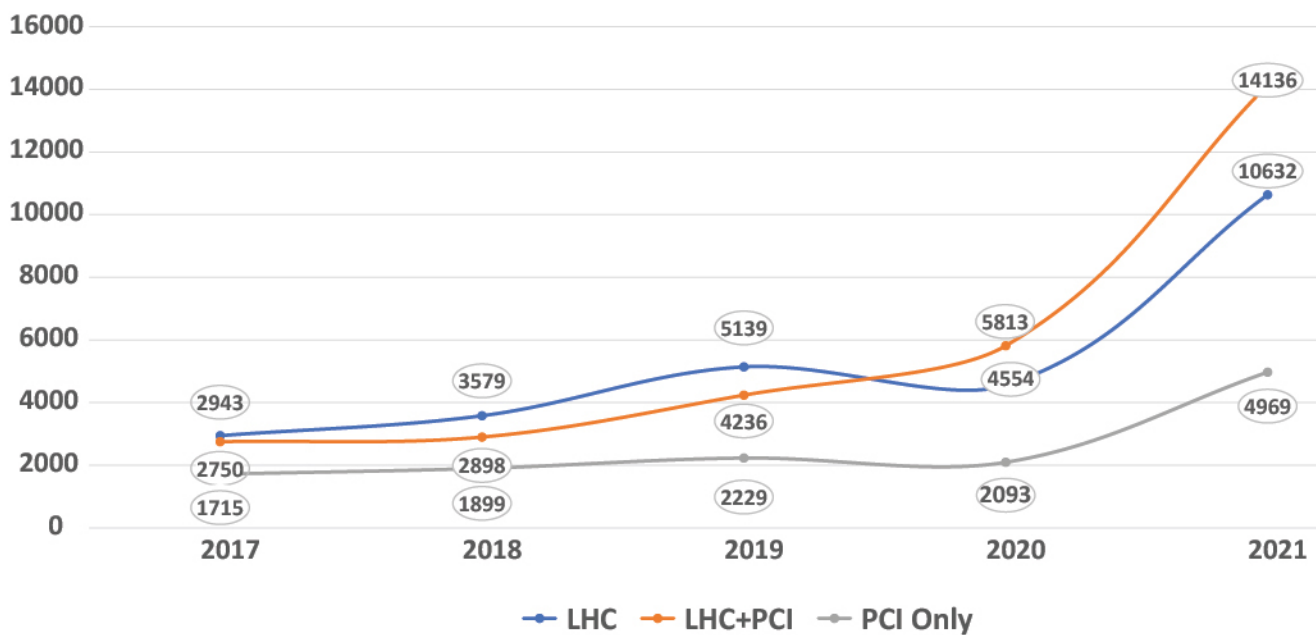
Participating institutes	City	Region	Registry Incharge
Civil Hospital, Quetta	Quetta	Balochistan	Dr. Mujeeb Ullah Tareen
Bolan Medical Complex, Quetta	Quetta	Balochistan	Dr. Jalal Uddin Achakzai
Heart & General Hospital	Quetta	Balochistan	Dr. Manaf Tareen



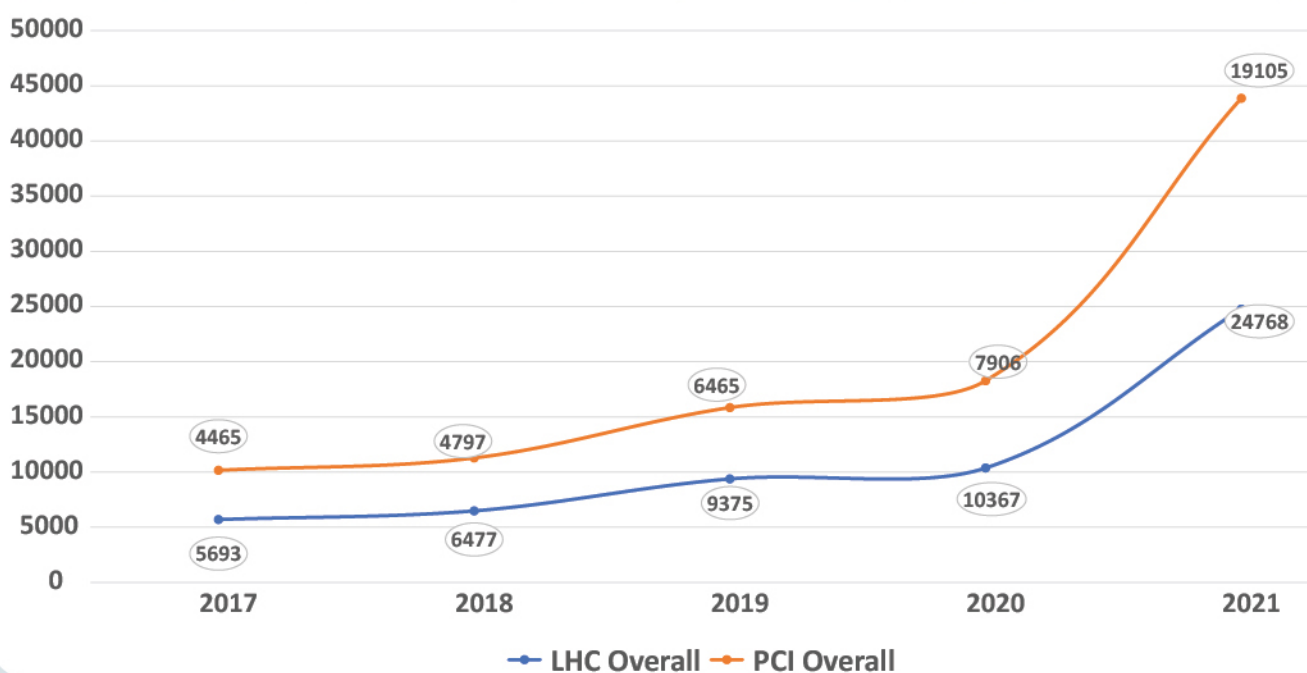
CROP, CathPCI Registry

Five Years Trends Analysis 2017 to 2021

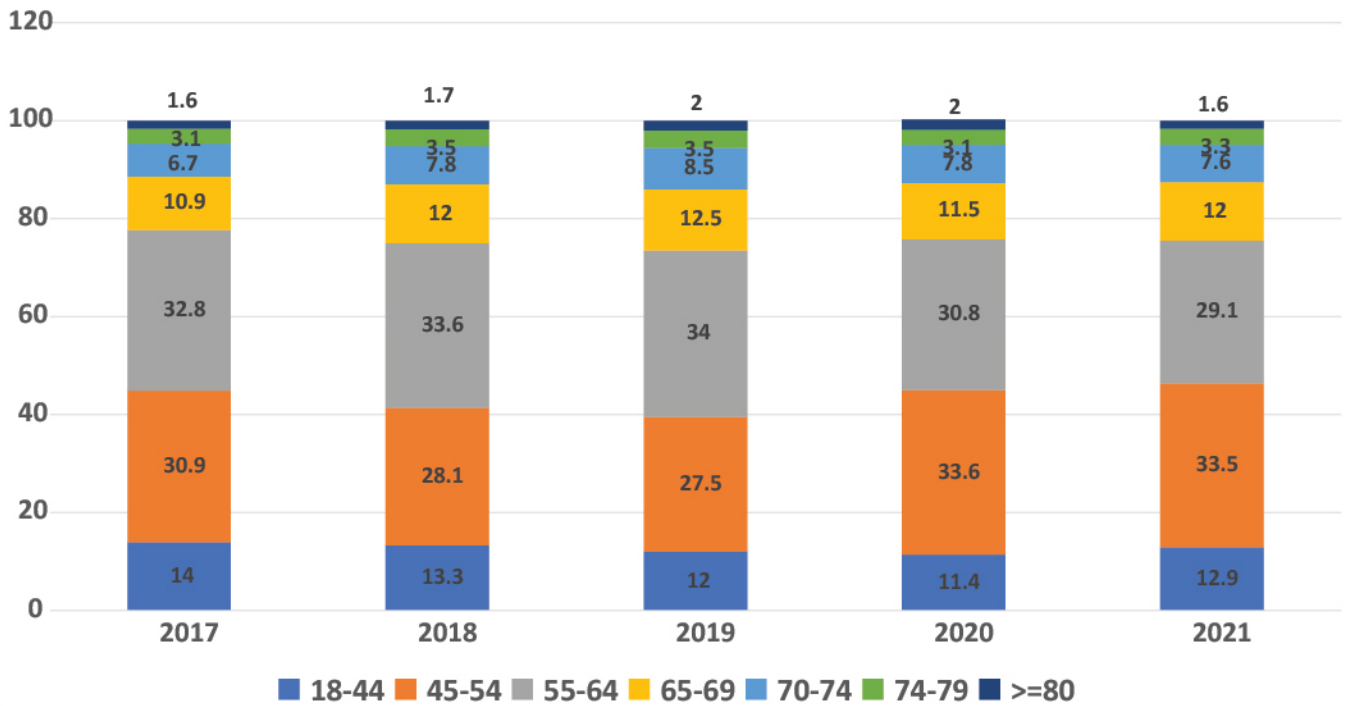
Total Number of Procedure's



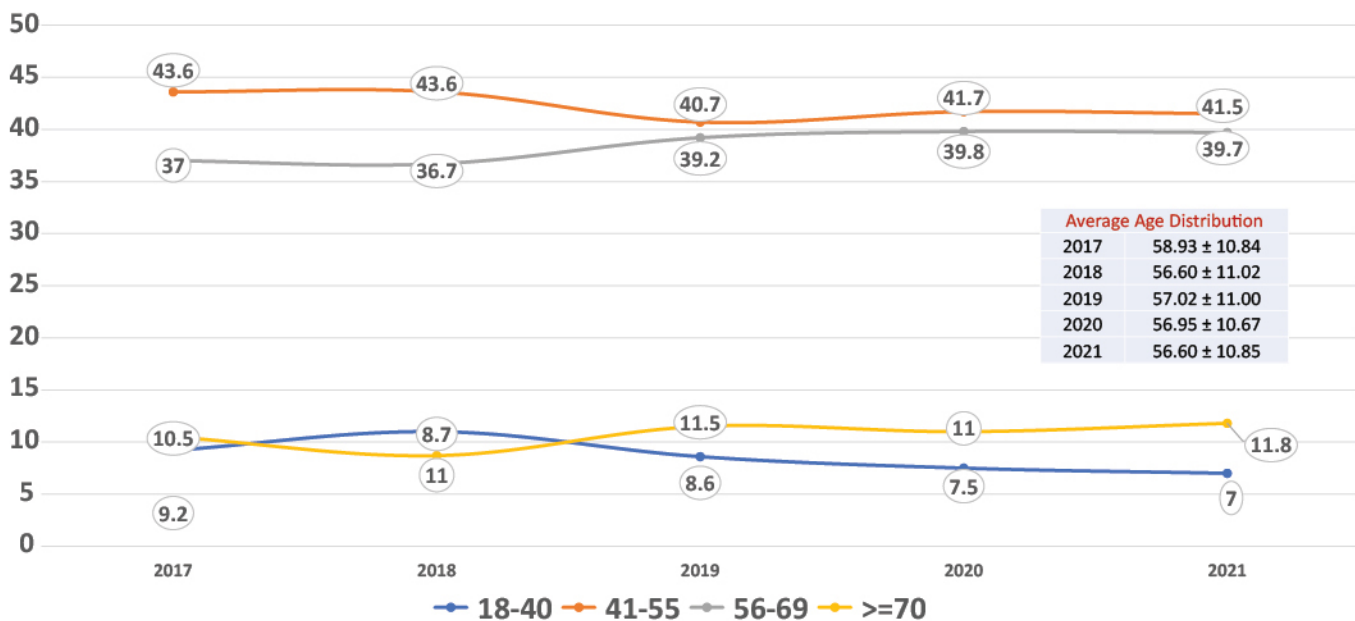
Over All Procedure



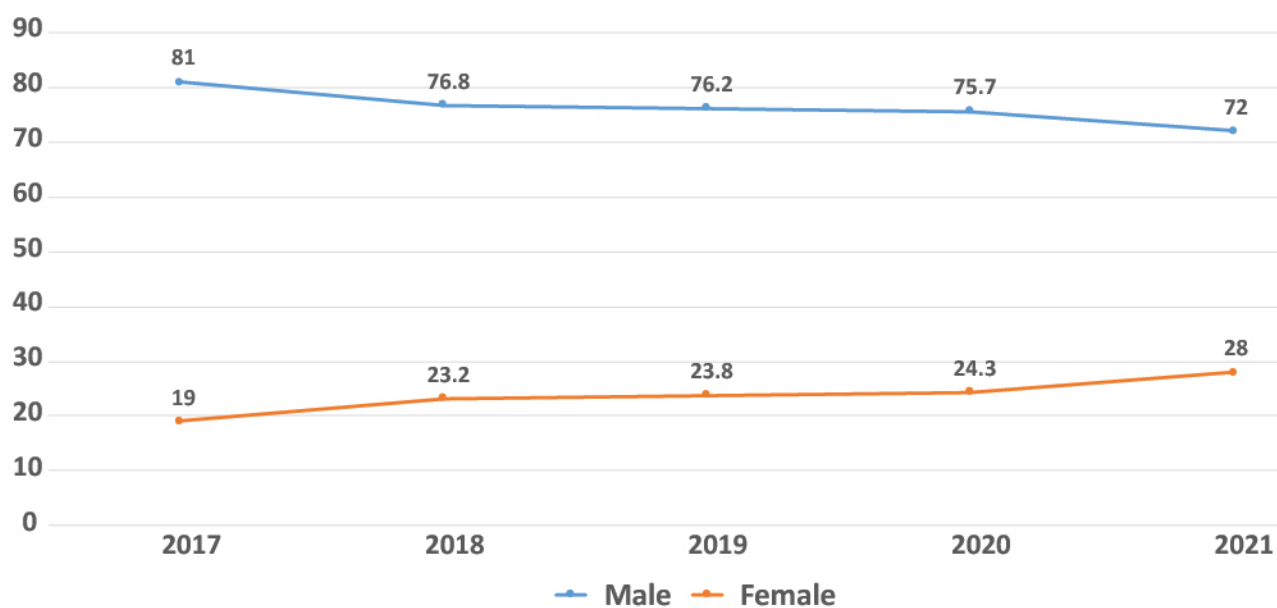
Age Distribution Overall (%)



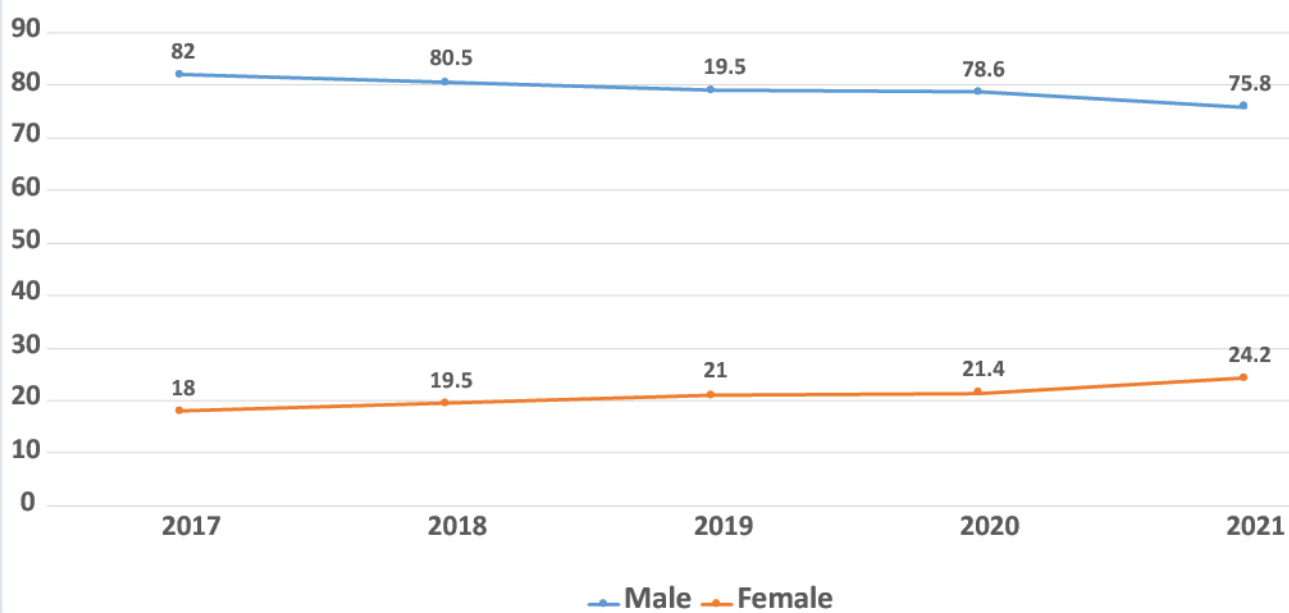
Age Distribution PCI Only (%)



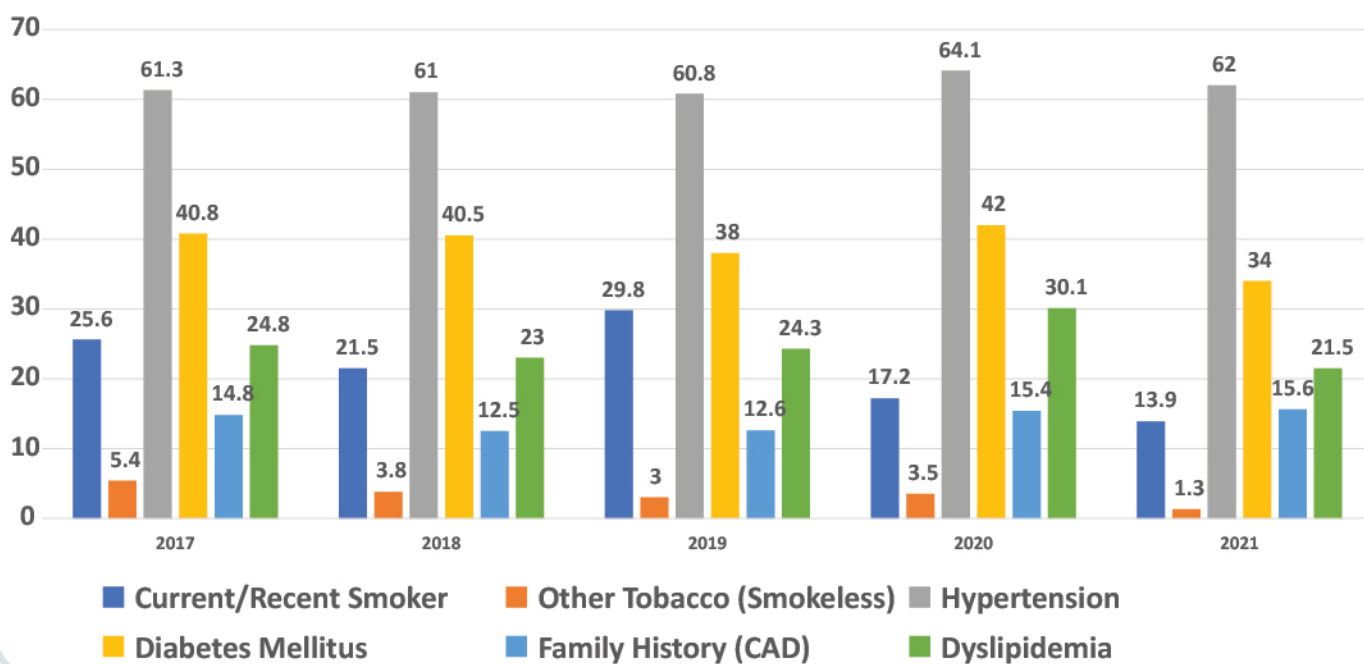
Gender Distribution Overall (%)



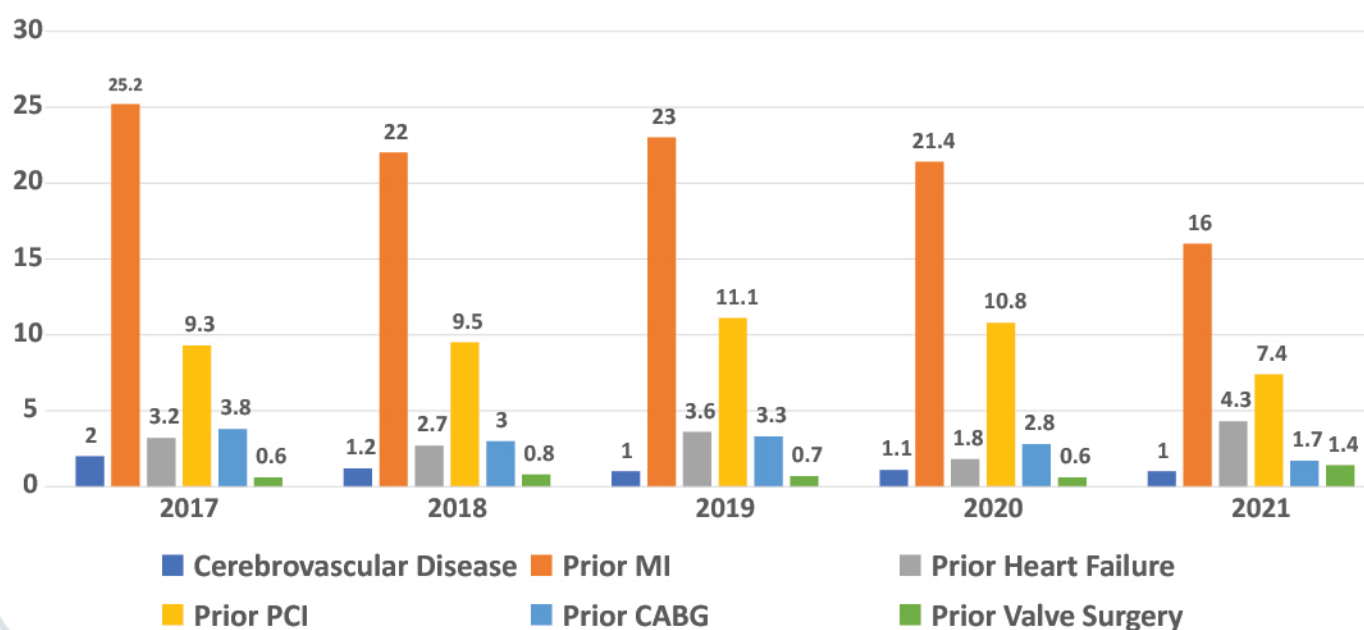
Gender Distribution PCI Only (%)



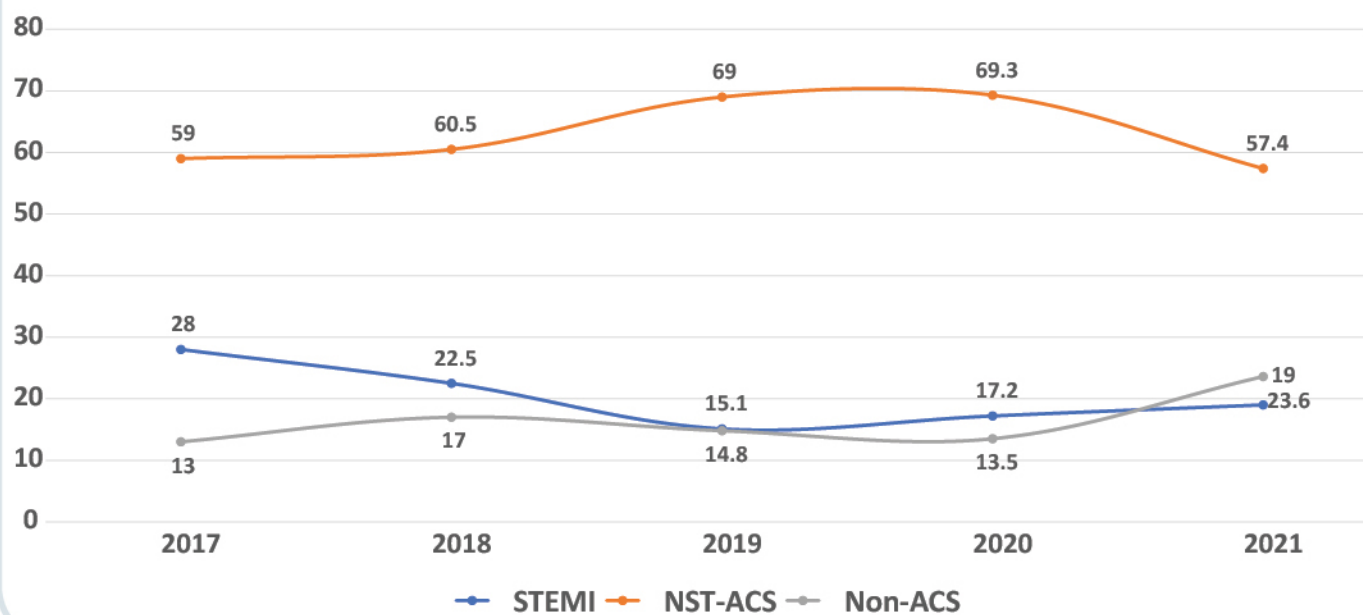
Co- Morbidities Overall (%)



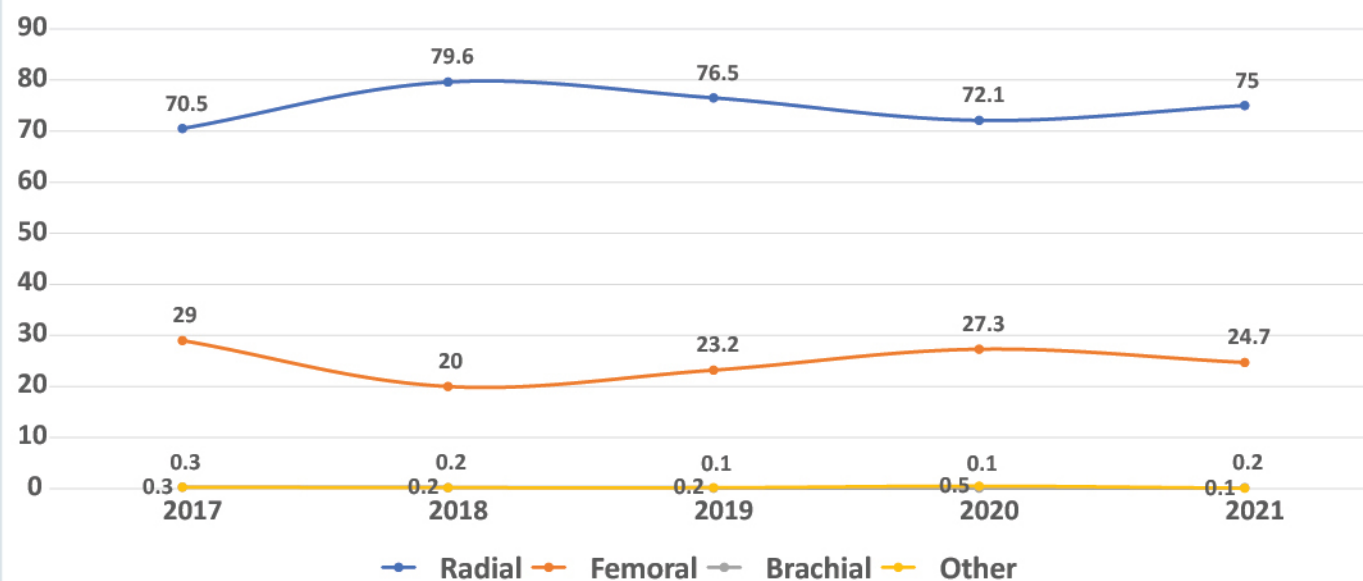
Co- Morbidities Overall (%)



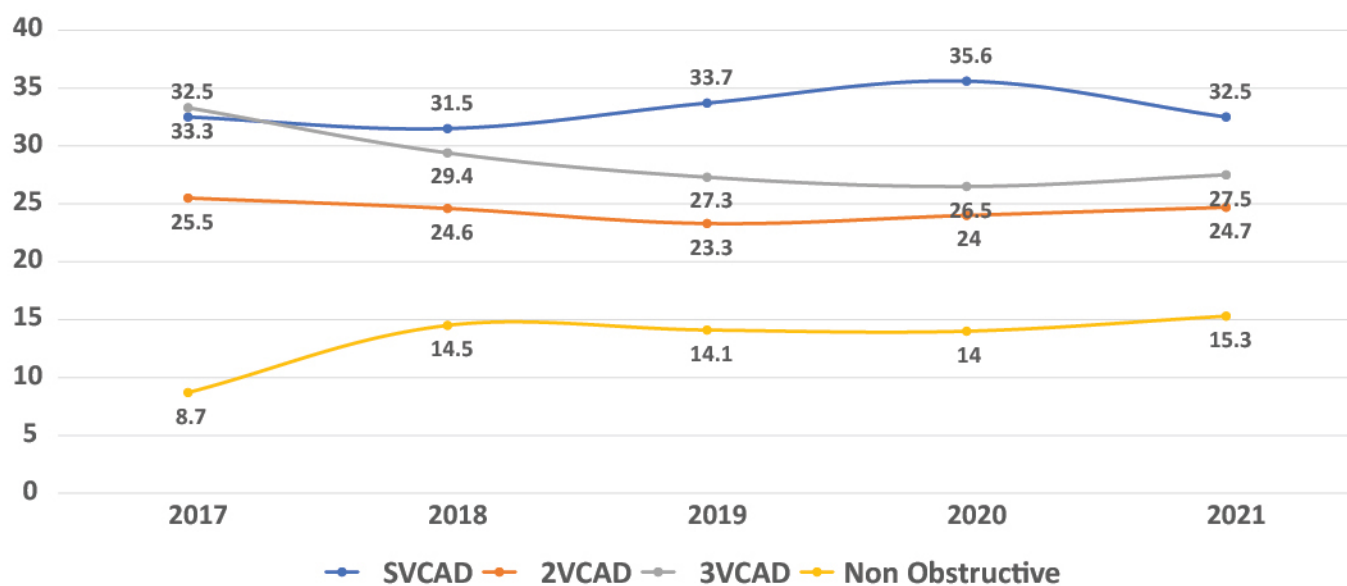
Indication for Cath Visit Overall (%)



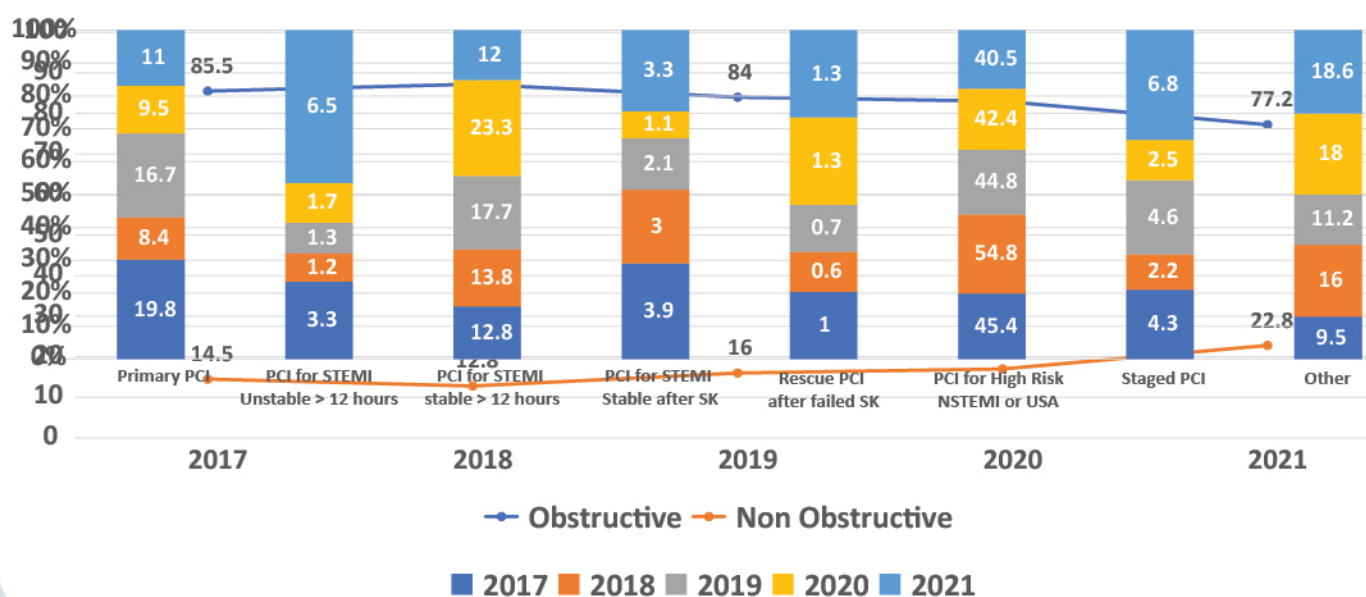
Arterial Access Site (All Procedures %)



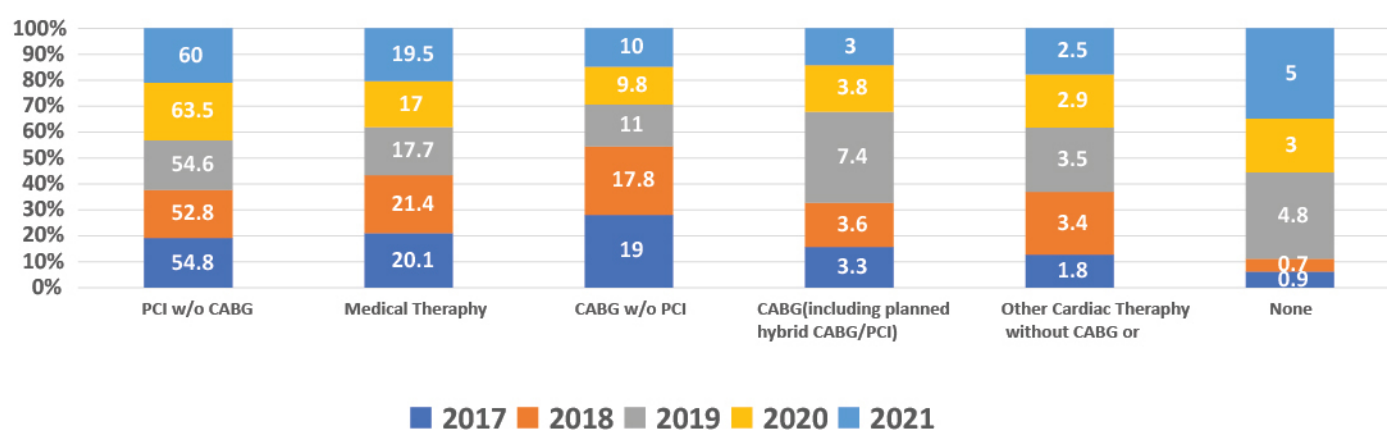
Diagnostic Cath Coronary Anatomy (%)



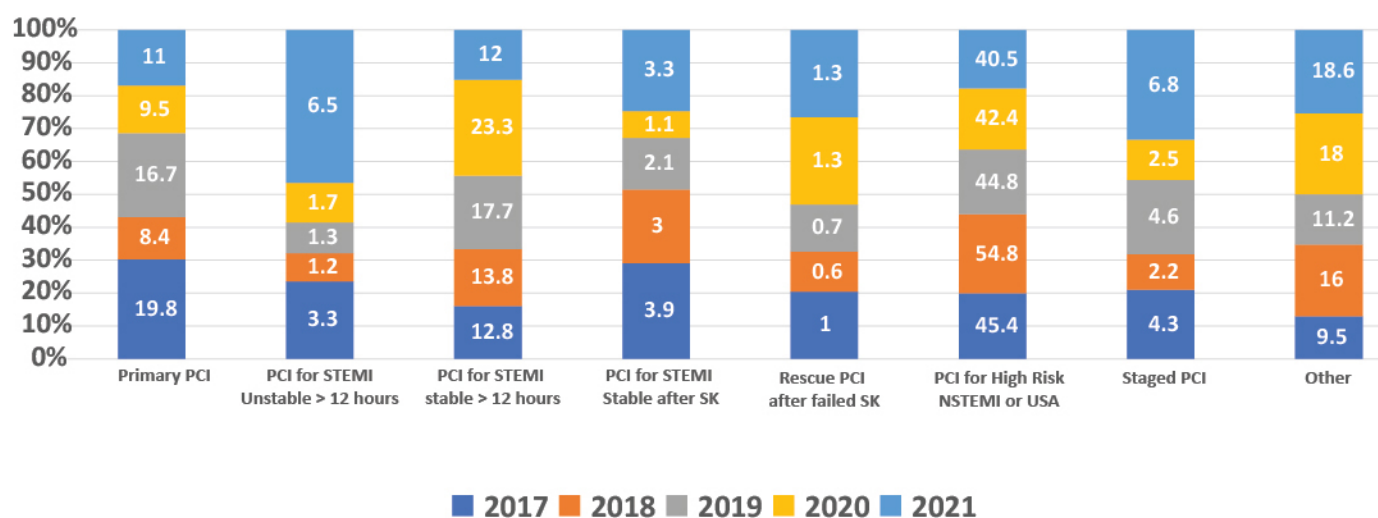
Diagnostic Cath NOC-Non-ACS (No Stress Test, No Pre-operative Evaluation, No LV-Dysfunction) (%)



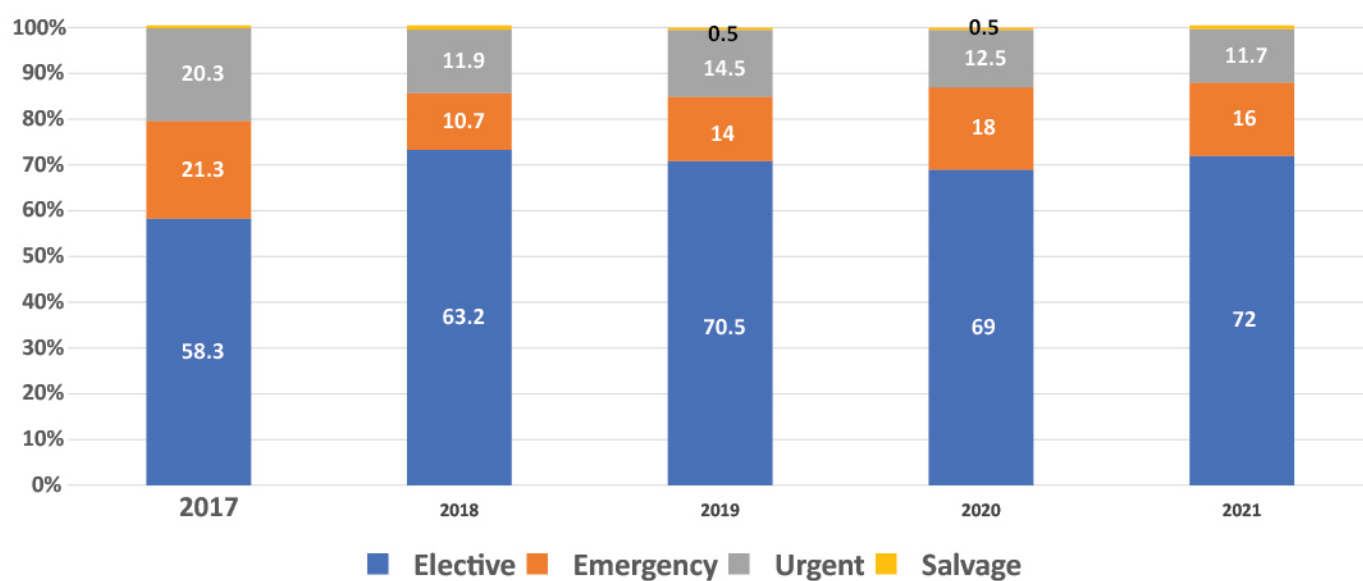
Diagnostic Cath Treatment Recommendation (%)



Percutaneous Coronary Intervention (PCI) Procedure Indication (%)



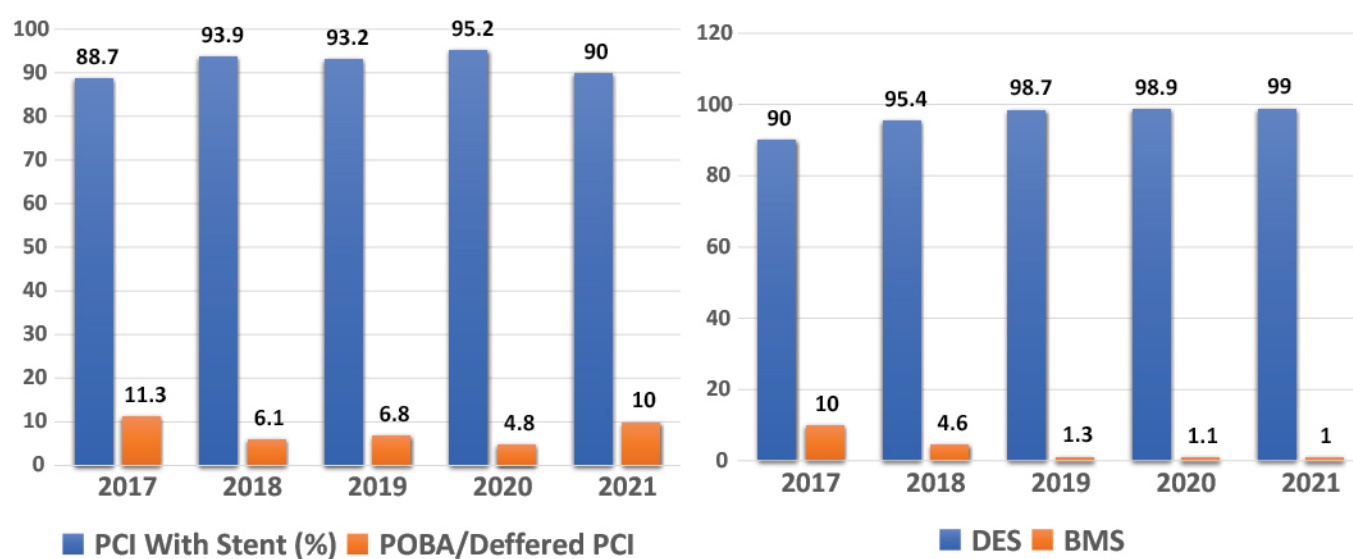
Percutaneous Coronary Intervention (PCI) Procedure Status (%)



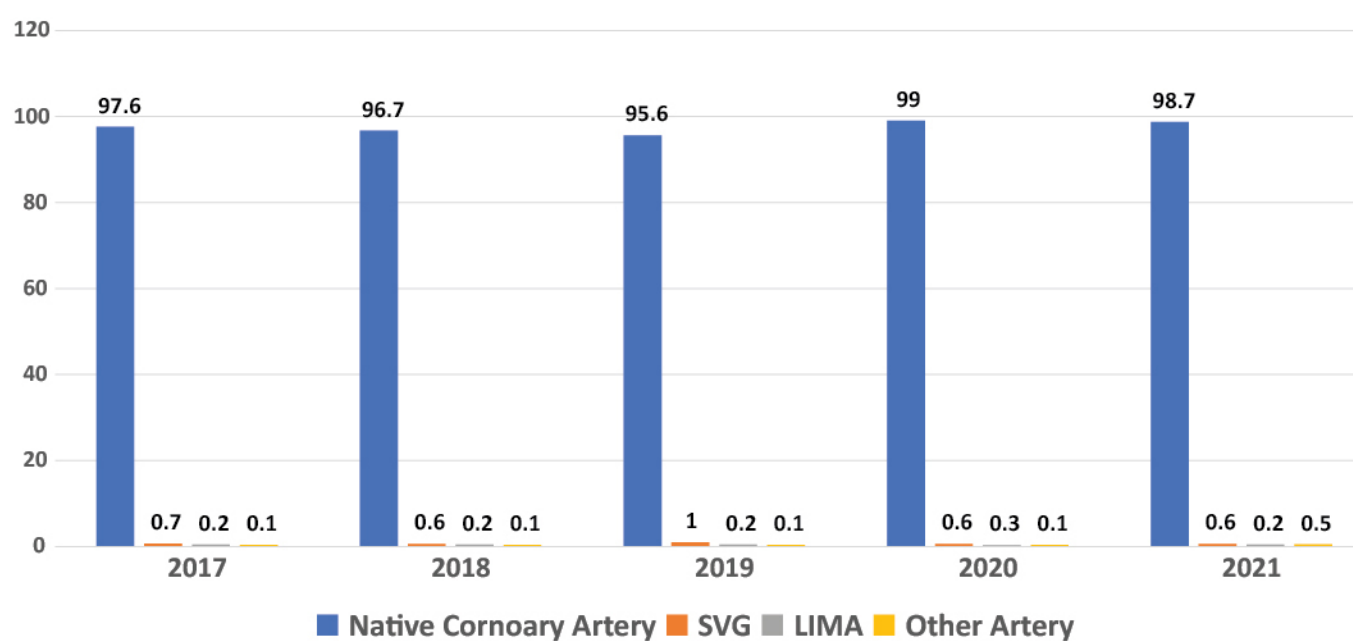
Percutaneous Coronary Intervention (PCI) Door to Balloon Time (Immediate PCI)

2017	93.8±105.6
2018	68.5±45.13
2019	96.73±59.0
2020	90.53±70.0
2021	85.39±60.0

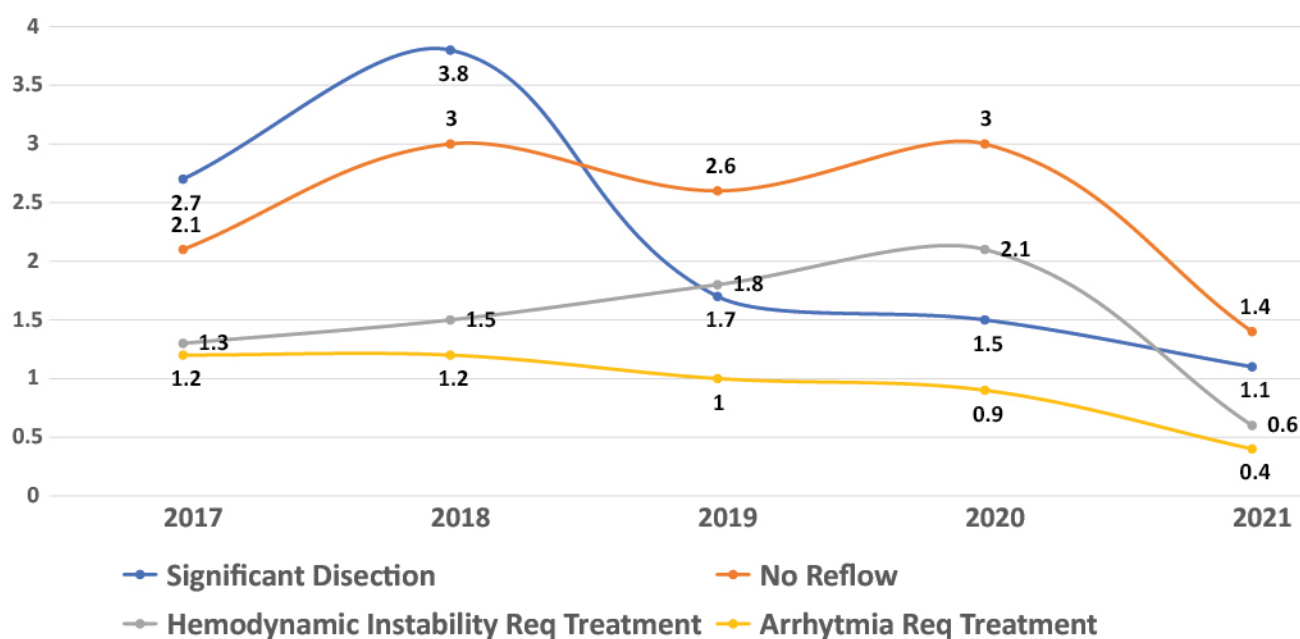
Percutaneous Coronary Intervention (PCI) Devices Used (%)



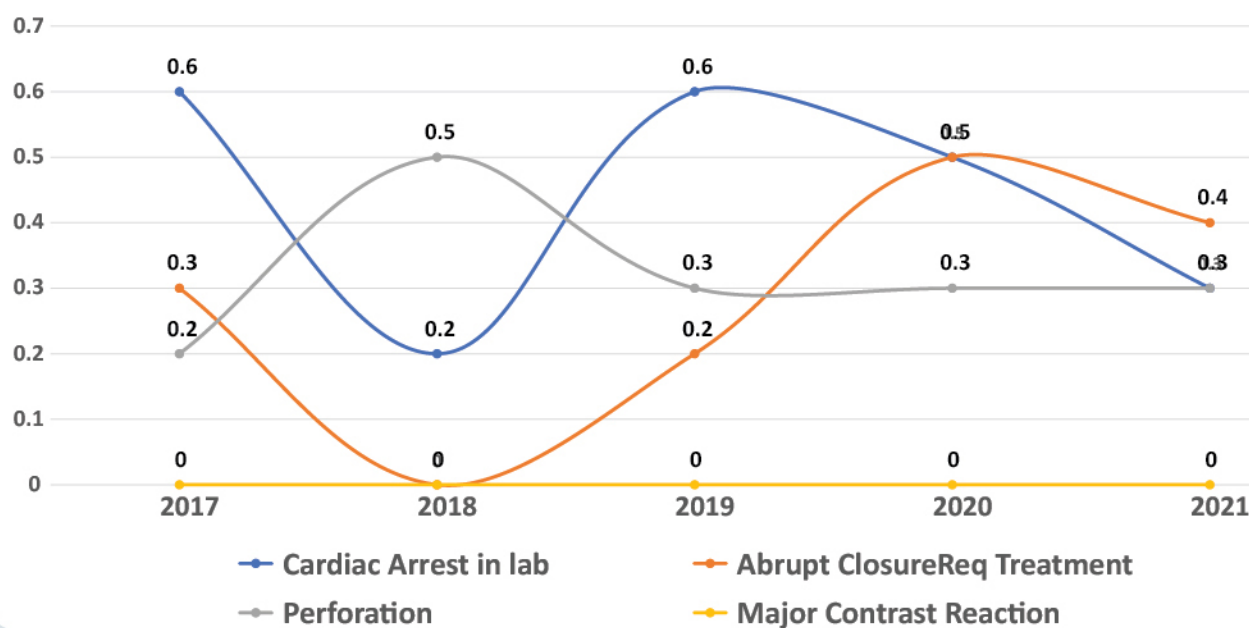
Lesion Distribution



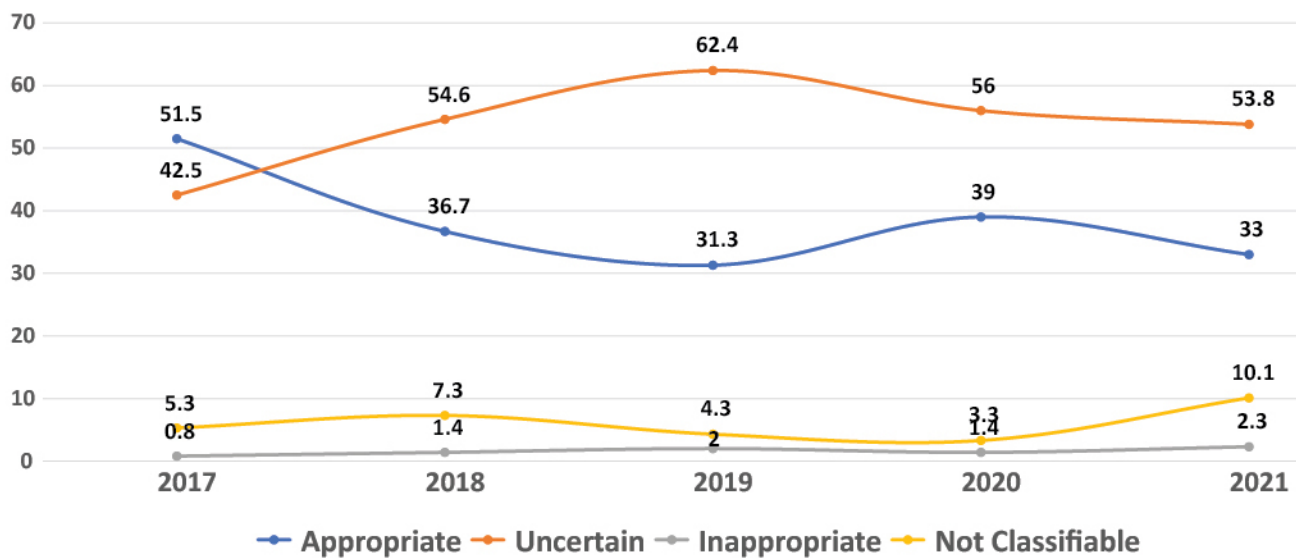
Percutaneous Coronary Intervention (PCI) Intra-procedure Events (%)



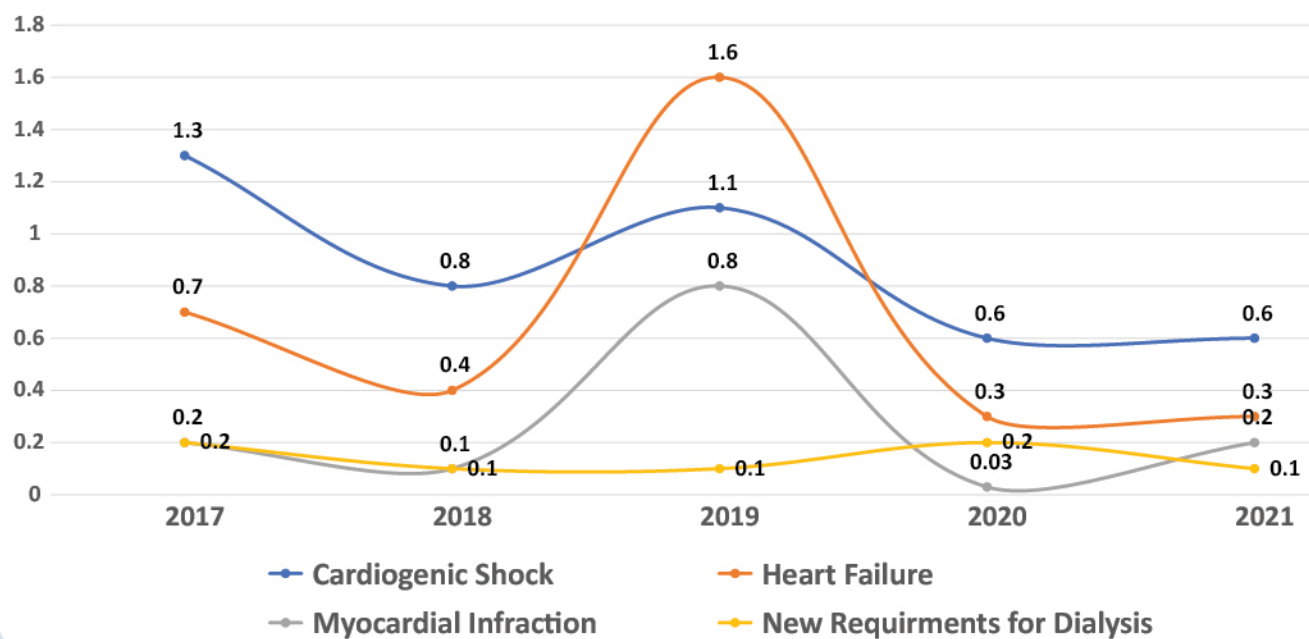
Percutaneous Coronary Intervention (PCI) Intra-procedure Events (%)



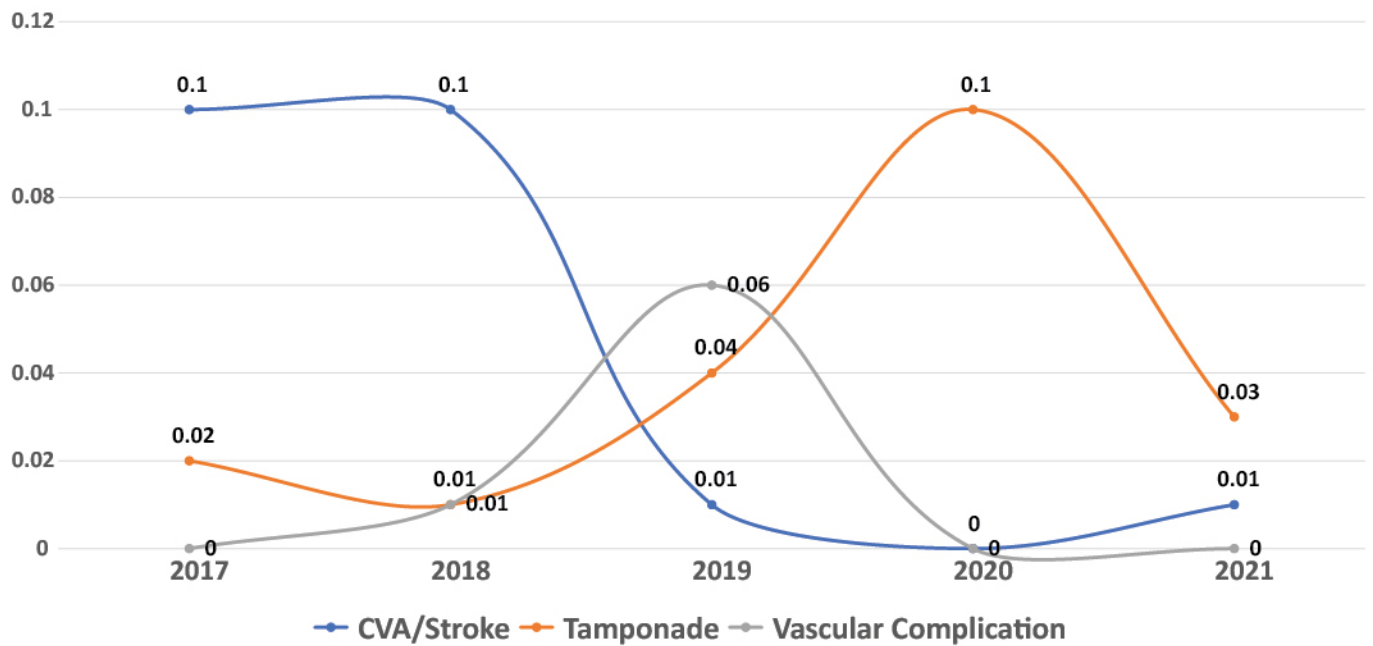
ACCF/SCAI/STS/AATS/AHA/ASNC/HFSA/SCCT 2012 Appropriate Use Criteria for Coronary Revascularization



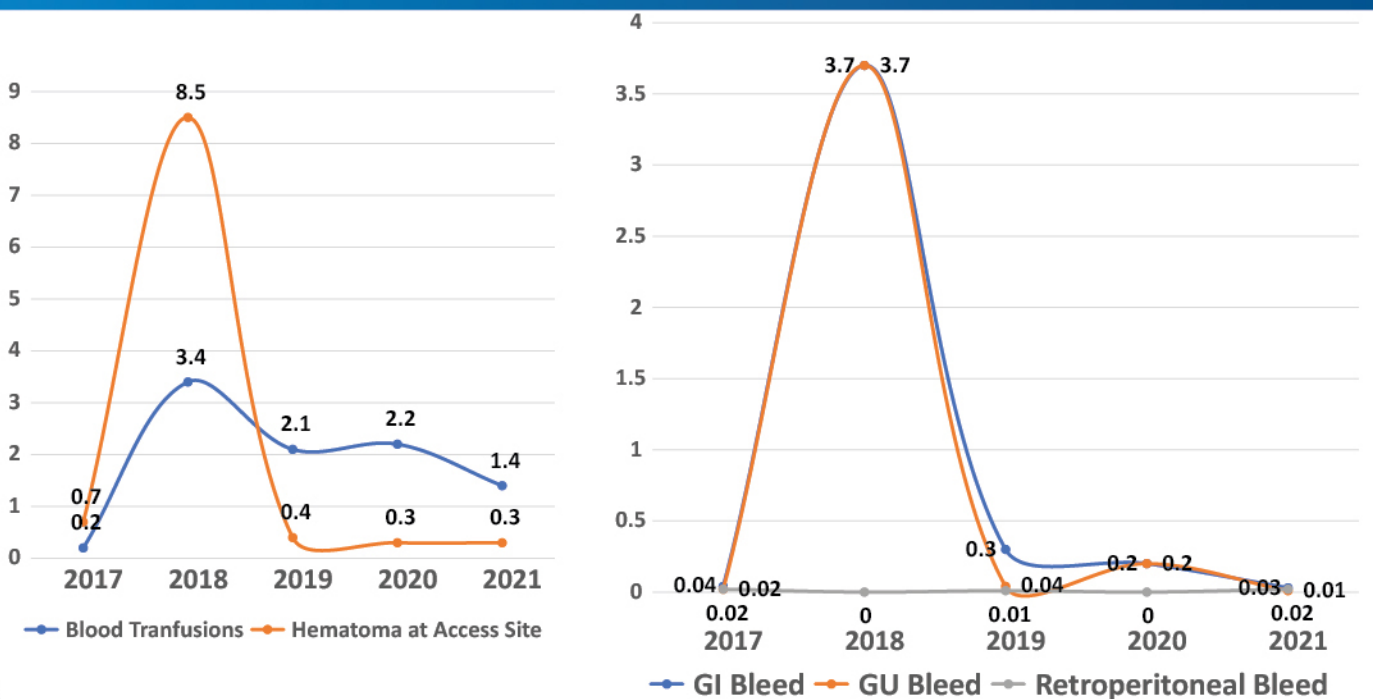
Post Procedure Events (%) Overall



Post Procedure Events (%) Overall

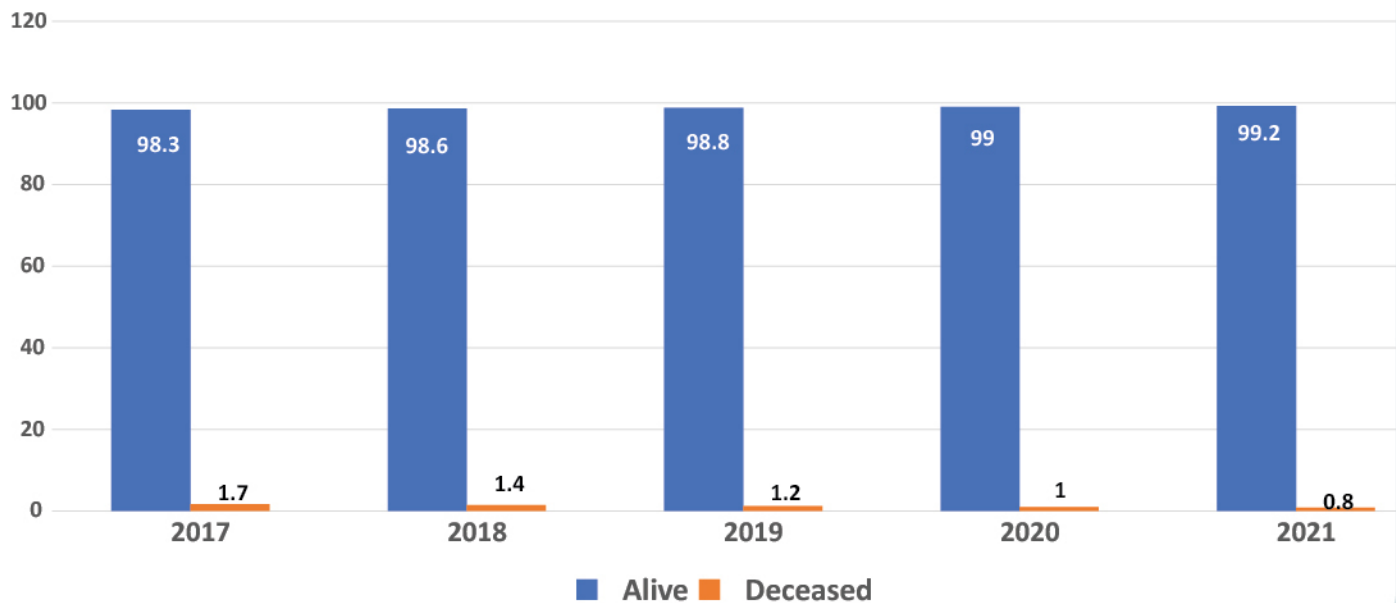


Bleeding Events (%) Overall

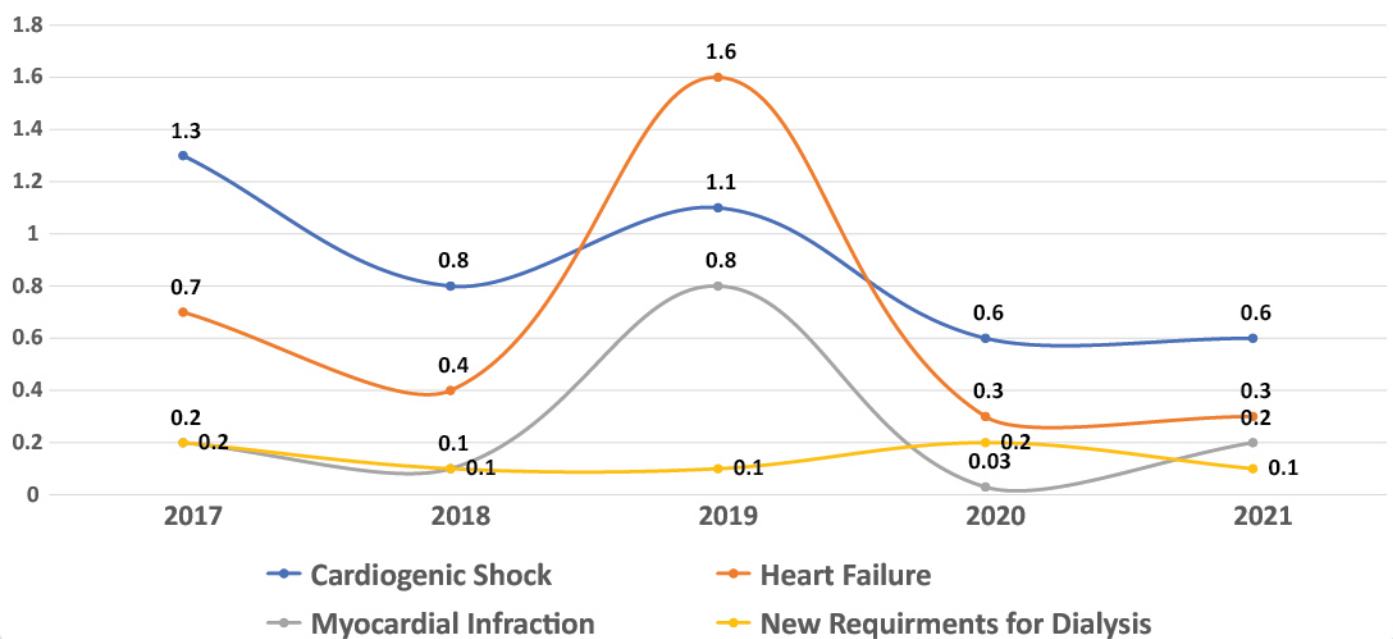


ACCF/SCAI/STS/AATS/AHA/ASNC/HFSA/SCCT
2012 Appropriate Use Criteria
for Coronary Revascularization

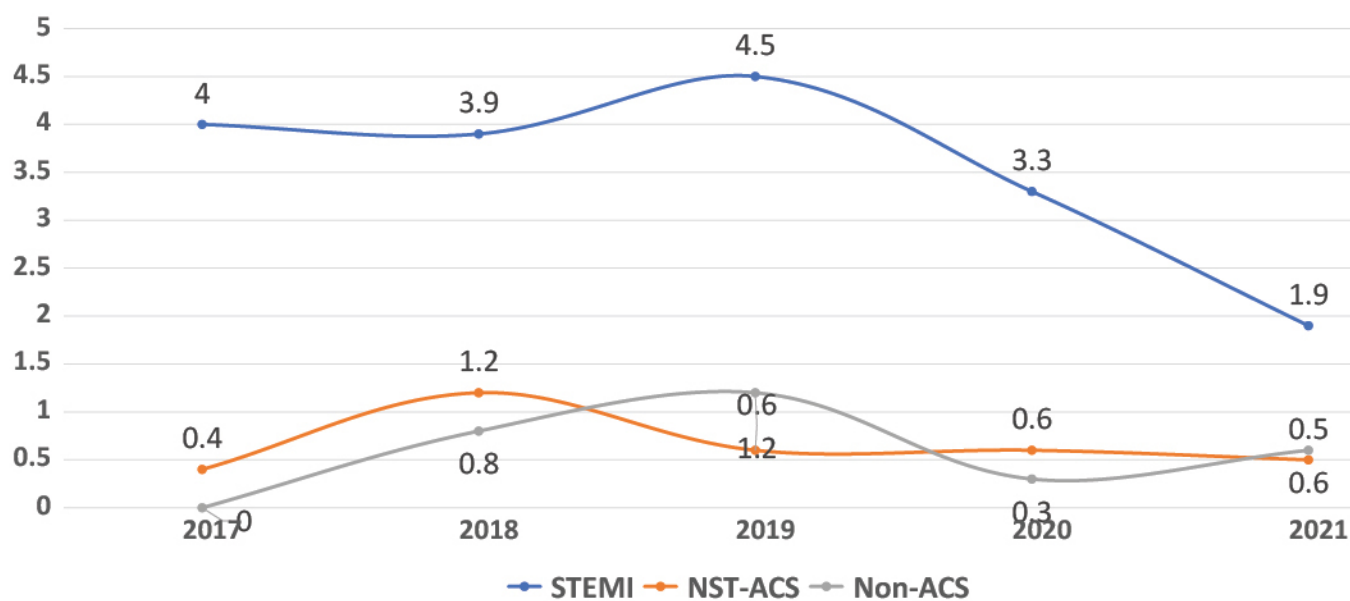
Discharge Status (%) Overall



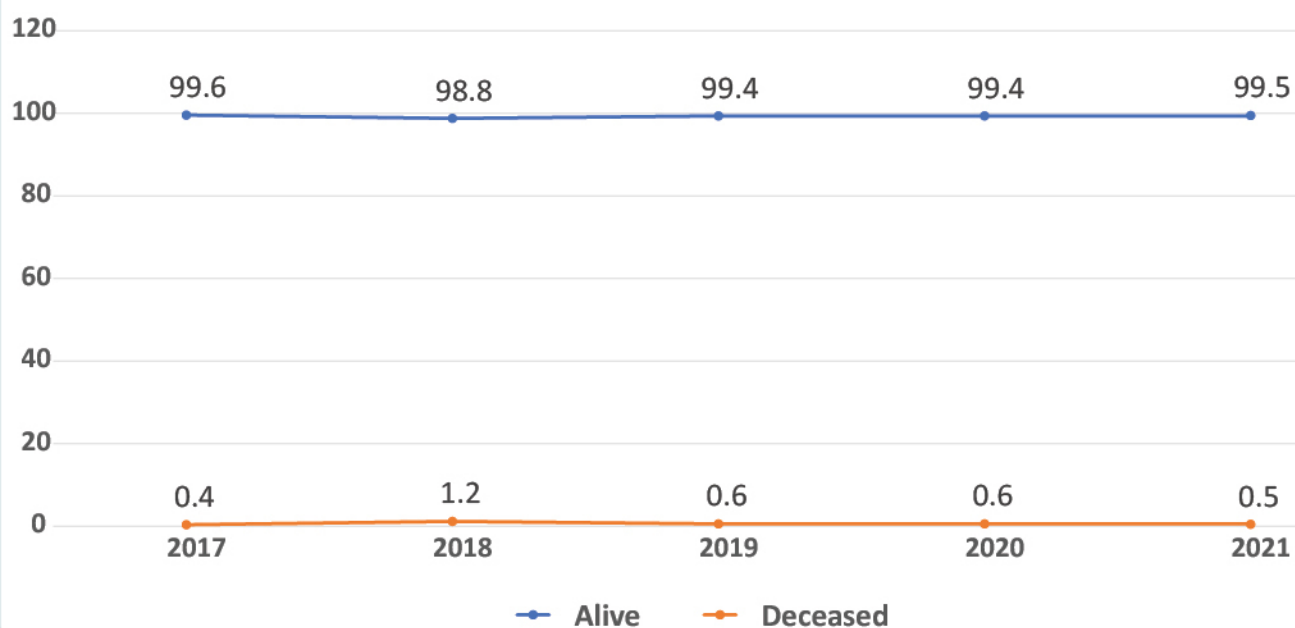
Post Procedure Events (%) Overall



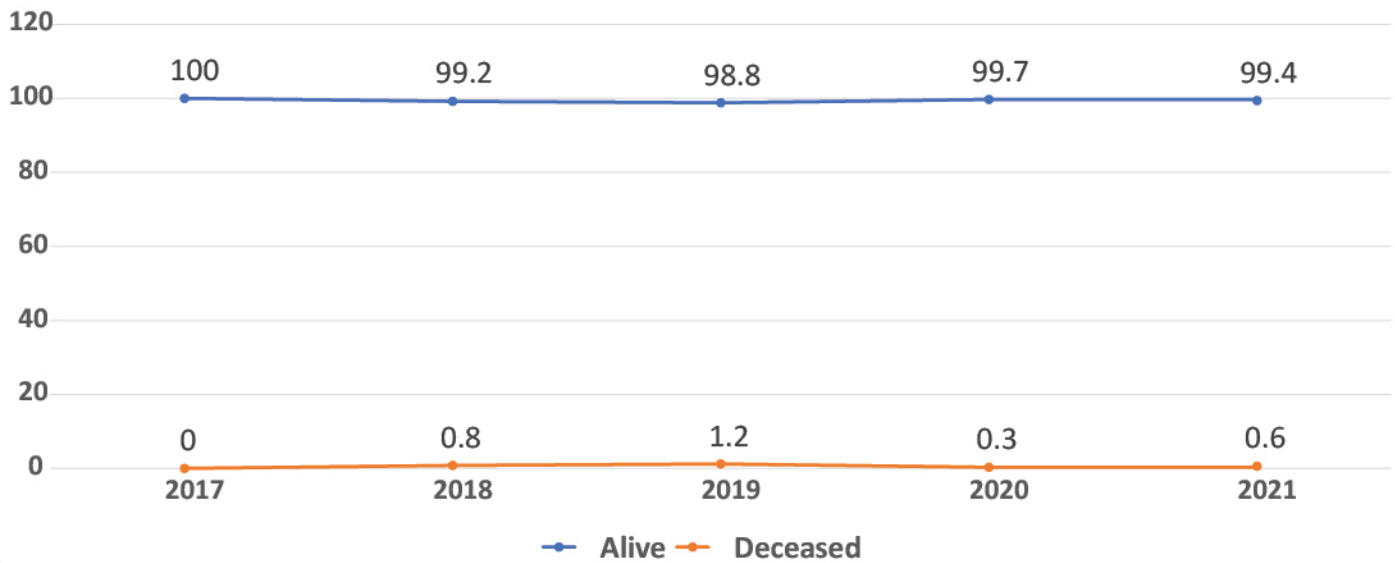
Mortality (PCI) with Presentation



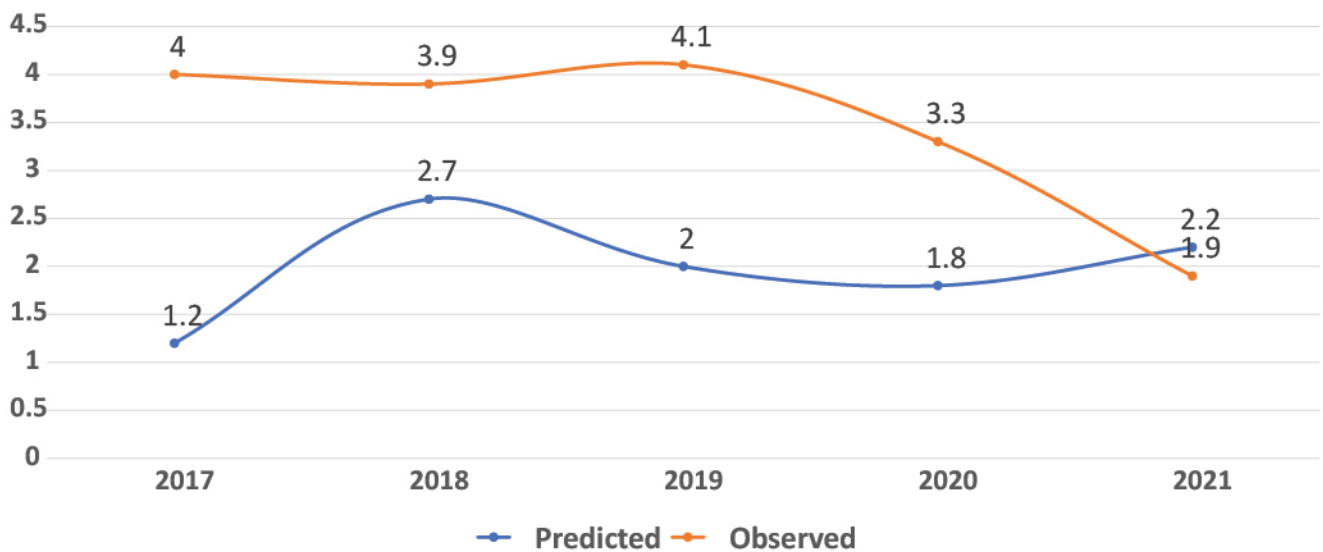
Discharge Status (PCI)NST-ACS(%)



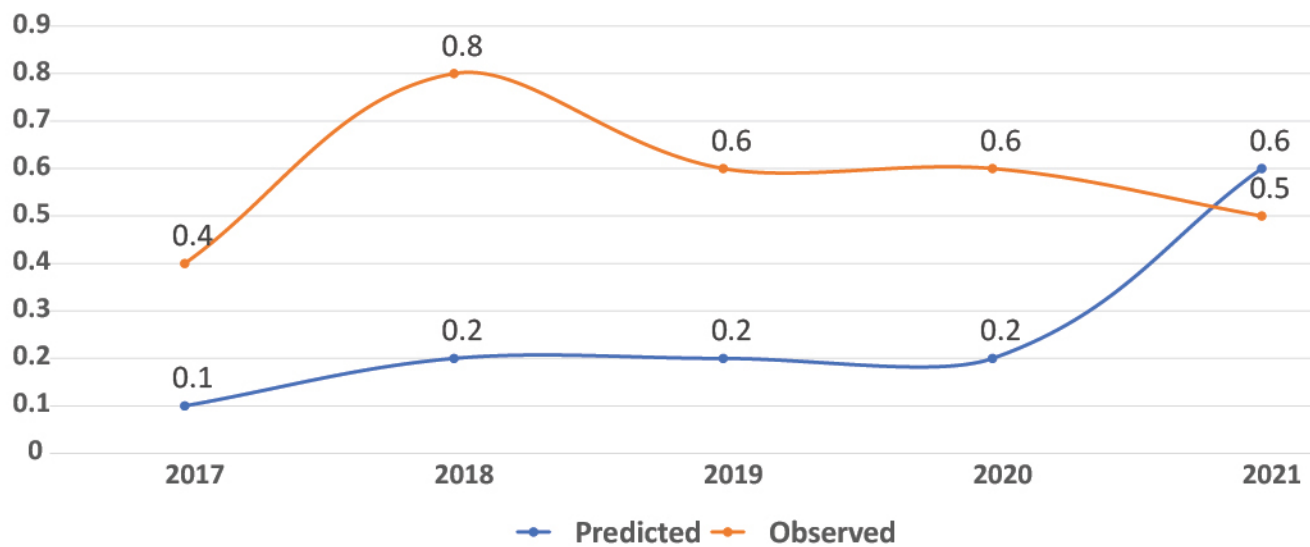
Discharge Status (PCI) Non-ACS(%)



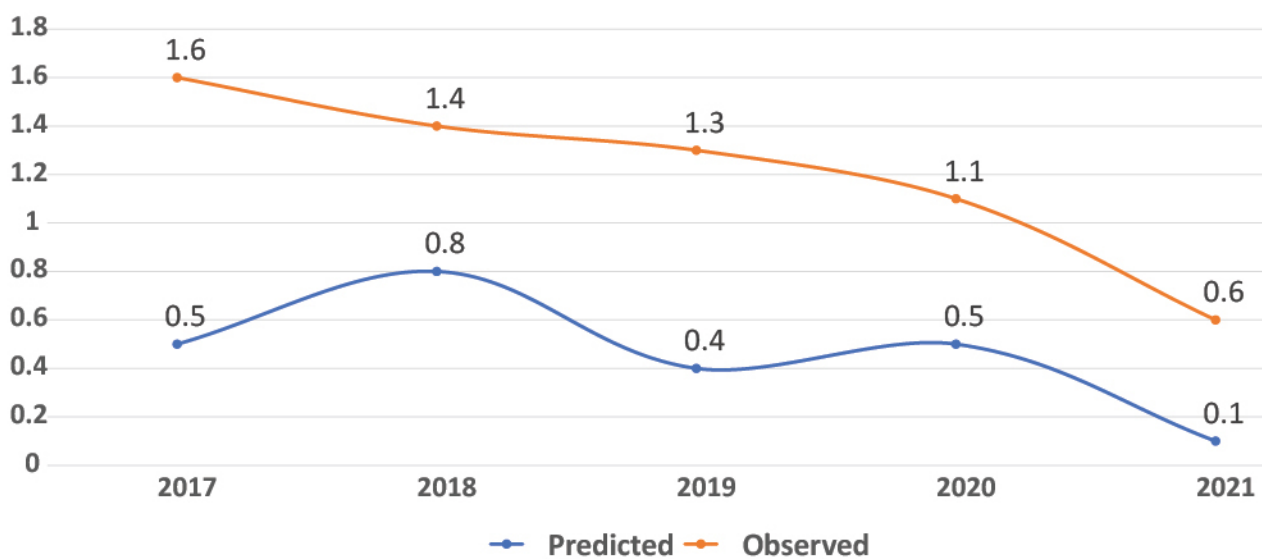
Risk Adjusted Mortality (%) PCI Predicted vs Observed STEMI

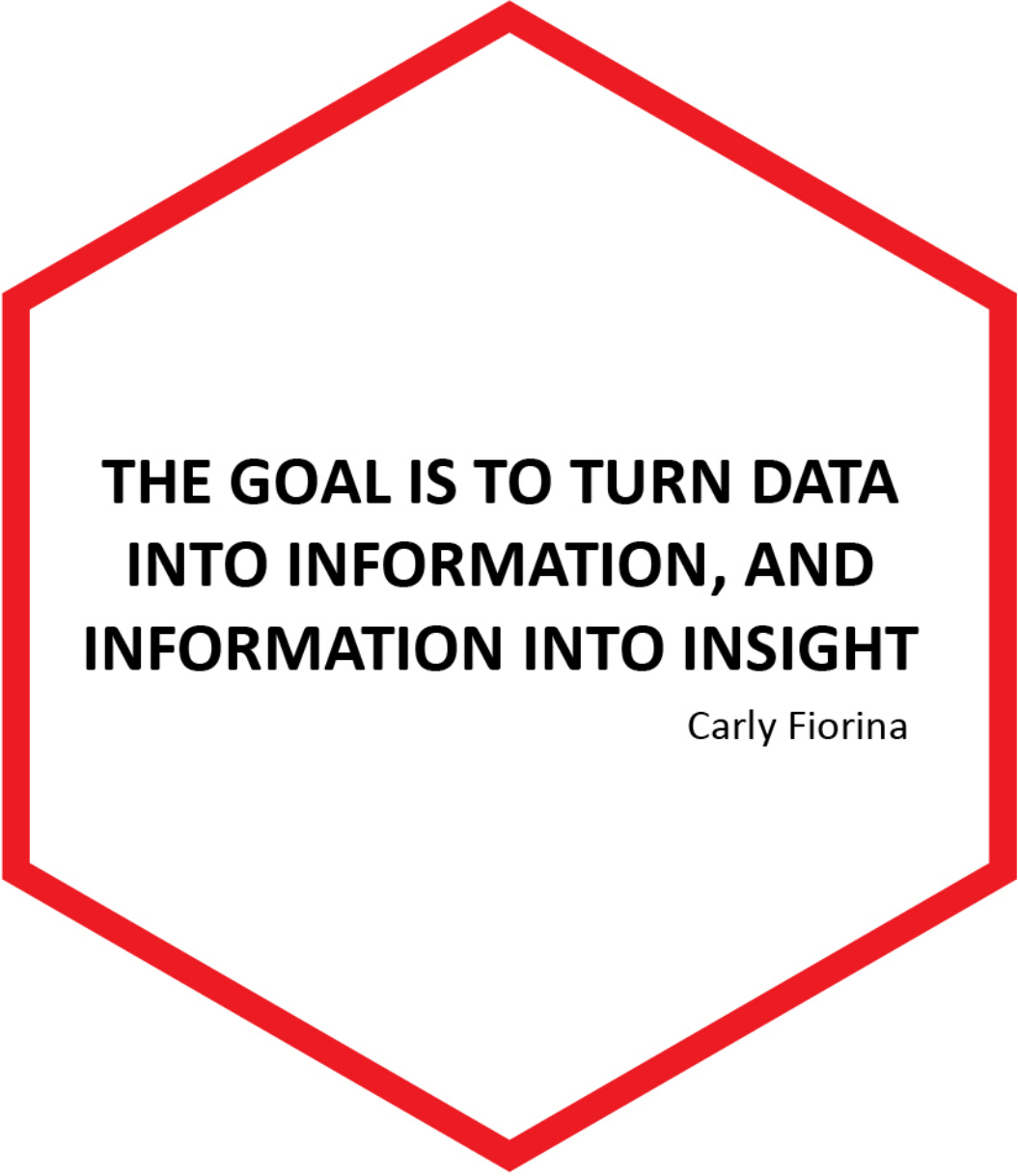


Risk Adjusted Mortality (%) PCI Predicted vs Observed NST-ACS



Risk Adjusted Mortality (%) PCI Predicted vs Observed Overall





**THE GOAL IS TO TURN DATA
INTO INFORMATION, AND
INFORMATION INTO INSIGHT**

Carly Fiorina

IN COLLABORATION WITH



**CROP, CathPCI Registry
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