

PREVENTIVE CARDIOLOGY CURRENT AND CARRIERS

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BACKGROUND:

Preventive cardiology branch helps you control risk factors for heart disease before they worsen. Internal medicine has a subspecialty called cardiology which works on the heart and blood vessels. In order to maintain the health of your heart and blood vessels, preventive cardiology focuses on early prevention. (Wilhelm et al., 2022¹, Gielen et al., 2015²).

AIMS & OBJECTIVE:

The aim of preventive cardiology is to better protect against heart disease and stroke by doing research, educating the public, and providing the best possible clinical care to those who are at a high risk of developing peripheral vascular disease and cardiovascular disease. (Gielen et al., 2015, Foundation et al., 2009³). The main objective is to find out the risk factors for IHD like hypertension, hyperlipidemia, diabetes, tobacco use, physical inactivity, unhealthy diet, obesity, as well as stress/depression, genetics, inflammation, racial/ethnic disparities, ageing, gender differences, subclinical disease imaging, novel biomarkers, risk prediction, vitamin D, and illiteracy and poverty living standards (Piepoli et al., 2020⁴, Members et al., 2016⁵, Members: et al., 2012⁶, Ambrosetti et al., 2021⁷, Guidelines et al., 2010⁸, Abreu et al., 2021⁹, Piepoli et al., 2014¹⁰, Hansen et al., 2022¹¹, Cowie et al., 2019¹²).

MATERIAL & METHODS:

Patients coming in OPD and Emergency Department with risk factors, ischemic heart disease or Rheumatic heart disease.

RESULTS:

During the year 2018-2022 PIC attended total of 8000 participant in preventive cardiology department. An approximate follow up crossed >11,000 visits. Of the participants visited, >4000 was Hypertensive, >2500 were diabetic, and >3000 were smokers. With departmental counselling 128 patients have quit smoking. Among the post procedure attendees, 181 were post PCI patients, 199 were post CABG. Primary prevention participants were 800, secondary prevention participants were 7000 and rehabilitation participants were 20.

CONCLUSION:

Due to its apparent simplicity, logical applicability, and common-sense interventions, the medical art of preventive cardiology has failed to receive adequate recognition as a devoted field of cardiovascular medicine. Similar to other medical subspecialties before it, preventive cardiology must strategically plan for a non-disruptive detachment from the current main channels of its components of care (cardiology, endocrinology, lipid clinics, etc.) and schedule to connect with all other care utilized by the patient in need of CVD prevention (hypertension, diabetes, EP, interventional etc.). This has so far been accomplished via dispersed and inconsistent methods. In the future, the center that specializes in preventive cardiology will need to have the care team capabilities to address the range of needs of this constantly expanding category of patients, and the individual provider who wants to have the full set of competencies in preventive cardiology should undergo the proper training and certification. Prevention will definitely reduce the morbidity and mortality

of population as well as the economic burden of nation in the health sector.

KEY WORDS:

IWMI, LCX, RCA, BMI, sudden death, coronary artery dominance.

INTRODUCTION
Preventive cardiology is a specialty of cardiology that helps you manage heart disease risk factors before they get worse. Cardiology is a branch of internal medicine that focuses on your heart and blood vessels. So, preventive cardiology focuses on early prevention to keep your heart and blood vessels healthy.

Budget (Millions)
Rough estimate of cost based on PICs currently managing samehow

Category	Value (Millions)
Angiography	460
Angioplasty	2040
CABG	952
Free Medicine	5475

2020 National health survey of Pakistan, WHO
Adult Population affected, Approx (%)

Category	Value (%)
Obesity	38.4
Diabetes	41.8
High Blood Pressure	28.3
High Cholesterol	48.9
High Triglycerides	26.7

Aim & Objectives
The aim of preventive cardiology is to better protect against heart disease and stroke by doing research, educating the public, and providing the best possible clinical care to those who are at a high risk of developing peripheral vascular disease and cardiovascular disease.
The main objective is to find out the risk factors for IHD like hypertension, hyperlipidemia, diabetes, tobacco use, physical inactivity, unhealthy diet, obesity, as well as stress/depression, genetics, inflammation, racial/ethnic disparities, ageing, gender differences, subclinical disease imaging, novel biomarkers, risk prediction, vitamin D, and literacy and poverty living standards.
Study Design: Cohort study. **Study Setting:** Punjab Institute of Cardiology Lahore, **Methodology:** Patients coming in OPD and Emergency Department with risk factors, ischemic heart disease or Rheumatic heart disease.

Core Competencies
NIHR National Institute for Health and Care Research
UKaid
Working in 5 countries: India, Pakistan, Sri Lanka, Bangladesh, and UK
What have we done and what will be the impact
• PIC has visited 65 rural and urban sites and evaluated approximately 12000 individuals
• This program is also being run by SIMS and together we have approximately 20000 and hope to do 40000 in which we will close study
• These individuals will be followed up for 5 years
• This will help us to identify the risks unique to our population and predict enabling timely intervention and prevention of disease (Primary Prevention)

Preventive Cardiology in Collaboration with Imperial College London
Global Health Research Unit on Diabetes and Cardiovascular Diseases in South Asia
Global Health Research Unit Project Details

1	Collective enrolment by SIMS & PIC	>37,000
2	Enrolment by PIC	17,000 Approx.
3	Plan to enrol participants	40,000

What does prevention mean?

Level	Description
Primordial Prevention	Prevention of risk factors
Primary Prevention	Prevention of disease
Secondary Prevention	Prevention of complications
Tertiary Prevention	Prevention of disability

How we are executing? Methodology
Preventive Cardiology Programs
Rheumatic Heart Disease Prevention
Ischemic Heart Disease Prevention
Prevention of Cardiovascular Disease
Prevention of Diabetes
Prevention of Hypertension
Prevention of High Cholesterol
Prevention of High Triglycerides
Prevention of Obesity
Prevention of Smoking
Prevention of Alcohol Use
Prevention of Physical Inactivity
Prevention of Unhealthy Diet
Prevention of Stress/Depression
Prevention of Genetic Risk
Prevention of Racial/Ethnic Disparities
Prevention of Ageing
Prevention of Gender Differences
Prevention of Subclinical Disease Imaging
Prevention of Novel Biomarkers
Prevention of Risk Prediction
Prevention of Vitamin D
Prevention of Literacy and Poverty Living Standards

Results
Data from OPD and Emergency Department
Statistical Data of Preventive Cardiology 2018-2022

Total participants	= 8000 (approx.)
Follow-up visits done	=11,000 (approx.)
Hypertensive	4000
Diabetic	> 2500
Smokers	> 3000

Conclusion
Due to its apparent simplicity, logical applicability, and common-sense interventions, the medical art of preventive cardiology has failed to receive adequate recognition as a devoted field of cardiovascular medicine. Similar to other medical subspecialties before it, preventive cardiology must strategically plan for a non-disruptive detachment from the current main channels of its components of care (cardiology, endocrinology, lipid clinics, etc.) and schedule to connect with all other care utilized by the patient in need of CVD prevention (hypertension, diabetes, EP, interventional etc.) This has so far been accomplished via dispersed and inconsistent methods. In the future, the center that specializes in preventive cardiology will need to have the care team capabilities to address the range of needs of this constantly expanding category of patients, and the individual provider who wants to have the full set of competencies in preventive cardiology should undergo the proper training and certification. **Prevention will definitely reduce the morbidity and mortality of population as well as the economic burden of nation in the health sector.**

Take Home Message!
"Prevention is better than cure"
Prevention will definitely reduce the morbidity and mortality of population as well as the economic burden of nation in the health sector.

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