

Cardiovascular Disease Prevention and Management Efforts in Nepal

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Twenty-eight years old male presented with the complaint of severe chest pain to an emergency department in a remote district hospital located in a seasonally road-accessed hilly region of Nepal, a South Asian country. He was diagnosed with an acute myocardial infarction with an ST elevation in the electrocardiogram; and treated with oxygen by portable oxygen concentrator, aspirin, atorvastatin, enalapril, and metoprolol by a general physician in the district hospital. Definitive treatment with coronary angioplasty or thrombolysis capable hospital is located far away from this hospital. So, he was referred to a heart center in capital city in a few days after the emergency treatment. The early invasive treatment with the percutaneous coronary intervention to prevent the complications and save the myocardium at risk was delayed, however, he was saved. This incident is an example a patient indicating the recent trend of the increasing atherosclerotic cardiovascular disease among young adults in south Asian countries and challenges in providing appropriate management at the right time.

Ischemic heart disease is the top most cause of death and disability in South Asian country including Nepal, as a result of an alarming rise in the prevalence of the known risk factors - smoking, diabetes, hypertension, obesity, physical inactivity, poor diet quality, and dyslipidemias.^{1,2} Although mortality rate of cardiovascular diseases and prevalence of major cardiovascular risk factors has generally decreased in high income countries, the corresponding mortality rate and risk prevalence has substantially increased in low-and-middling income countries.³ Despite this, health systems are not well-prepared to combat the CVD and its risk factors in many LMIC. In Nepal, the capacities and readiness to prevent and manage cardiovascular cases are limited due to major gaps in the health systems. First, even though the national health system included cardiovascular disease as priority health issue into the multi-sectorial non-communicable disease action plan, the implementation is weak resulting in the inadequate investments and preparedness.⁴ Second, there is limited CVD care and facilities in the country, which are cumulated in the capital city-Kathmandu and a few other major cities resulting in inequitable access to care. Third, the cardiovascular disease specific guidelines and trainings are inadequate in medical professionals even though the basics are included in the the general curriculum of medical education. Fourth, the inadequate and urban centered specialized doctors, nurses and other human resources further increases the inequity and barriers to CVD care.⁵ Finally, the double burden of non-communicable diseases like cancer, trauma, and respiratory diseases; along with of infectious diseases, especially due to the rise of COVID-19 pandemic, has further complicated the gaps in addressing CVD care needs.

Despite these challenges, there exists silver linings of hope. In the past decade, there are indications of rise in the awareness and advocacy on cardiovascular diseases and expansion of health facilities in terms of number and geographical reach. A systematic assessment-based evidences will significantly help the health system to plan the programs to address CVD in an efficient and equitable way. We thank our contributors to produce these detailed analyses of the health system needs in the area of the six major building blocks (leadership and governance, human resources for health, medical supplies, health information system, health care delivery and health financing) to address CVD prevention and management efforts in Nepal. We hope that our readers will find these articles interesting and illuminating to guide to decrease CVD related deaths and disability in Nepal.

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