

## **Preliminary Findings from Non-communicable Disease in Nepal (NCD Nepal) Study**

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### **Background**

Non-communicable disease in Nepal (NCD Nepal) study is a community-based prospective study to understand the epidemiology of NCDs in rural Nepal and to test the effectiveness of implementation approaches to reduce NCDs.

### **Methodology**

The study is conducted in Ghorahi-Dang (Wards 3, 4, 6, 7) in 7,052 estimated target population, 40-75 years old by organizing monthly mobile health-clinics. All eligible participants receive comprehensive risk-factor assessment using validated questionnaire, physical examination; and high-risk participants receive laboratory investigations. Participants will be followed-up for 5 years or until death. Lifestyle-counseling, pharmacotherapy and personalized follow-up will be offered.

### **Results**

A total of 1232 participants were enrolled between May2018 – December2019. The mean age was 54 years; 63.4% were female. About 14.2% were current smokers; 14.5% used excessive alcohol. The mean daily salt intake was 13.1 gram/day, 17.4% were engaged in vigorous-intensity (>6 metabolic equivalents-METS) physical activities. The mean body mass index, waist-circumference and blood pressure were 24.0kg/m<sup>2</sup>, 81.9cm and 124/77mmHg, respectively. Hypertension was present in 30.2%; 46.5% were unaware. Diabetes was present in 7.5%; 16.3% were unaware. Elevated glucose and/or diabetes (maximum projected diabetes burden) was present in 27.3 %; 76.5% were unaware. The mean total cholesterol, high-density lipoprotein cholesterol, triglycerides and serum creatinine (N=462) and HbA1C (N=96) were 167mg/dl, 48mg/dl, 212.6mg/dl, 0.8mg/dL and 7% respectively. Estimated 10-year risk for developing atherosclerotic disease was 8.1% (N=270). Coronary artery disease was prevalent in 1.1%; heart failure, stroke, peripheral artery disease and chronic lung disease were each prevalent in <1%.

## **Conclusion**

The NCD Nepal Study emphasizes on identification and risk modification of asymptomatic individuals in community for NCDs. Studies like these can be a sustainable approach to address NCDs in resource-limited setting like Nepal.

## **Key words**

1. Community-based intervention
2. Low-to-middle income countries
3. Non communicable diseases
4. Rural health
5. Diabetes
6. Hypertension
7. Cardiovascular Disease