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COMMUNITY-CENTRIC STUDY TO MITIGATE CARDIOVASCULAR DISEASE IN RURAL NEPAL: THE NON-COMMUNICABLE DISEASE IN NEPAL STUDY

Poster Contributions
Sunday, May 16, 2021, 2:45 p.m.-3:30 p.m.

Session Title: Spotlight on Special Topics: Global Cardiovascular Health 6
Abstract Category: 56. Spotlight on Special Topics: Global Cardiovascular Health

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Background: Cardiovascular diseases (CVDs) are leading cause of deaths globally. A community-centric reproducible, cost-effective longitudinal-risk mitigation model can potentially address rising CVD tsunami in low-and-middle income countries.

Methods: The Non-Communicable Disease in Nepal (NCD Nepal) Study is a community-centric study planned and conducted in close coordination with local community in rural Nepal with an estimated 7,052 (40-75 years old) participants. Pre-specified eligible participants are invited every month in their neighborhood to undergo a comprehensive assessment for NCDs and receive lifestyle counseling and pharmacotherapy with ongoing follow-up to assess for incident CVDs and cost-effectiveness. Here, we report the preliminary findings.

Results: A total of 1232 participants have been enrolled (5/2018 - 12/2019, Table). Mean age was 54 years (63.4% females), 47% had <\$85 monthly family income, ~50% had ≤10 grade education and 14.2% were current smokers. Average daily salt-intake was 13.1 grams, hypertension and diabetes was present in 30.2% and 7.5% (46% and 16.3% were unaware, respectively). Fruits and vegetable intake was low as was physical activity level (Table).

Conclusion: CVD risk factors are common in rural Nepal and are undiagnosed. This community-centric study offering interventions in their neighborhood will assess cost-effectiveness strategy to document and mitigate NCD in rural Nepal.

Table: Preliminary findings from NCD Nepal Study

Characteristics, Mean (SD) or N (%)	All (N=1232)	Men (N=451)	Women (N=781)	P-value
Age, years (SD)	54.2 (11.0)	56.7 (11.1)	52.8 (10.7)	0.000
Monthly family income in US\$				0.190
<85	581 (47.16)	196 (43.46)	385 (49.30)	
85 to <170	366 (29.71)	147 (32.59)	219 (28.04)	
170 to <255	143 (11.61)	58 (12.86)	85 (10.88)	
≥255	110 (8.93)	42 (9.31)	68 (8.71)	
Education				0.000
<5 grade	330 (26.79)	135 (29.93)	195 (24.97)	
5-10 grade	278 (22.56)	149 (33.04)	129 (16.52)	
11-12 grade	47 (3.81)	36 (7.98)	11 (1.41)	
>12 grade	20 (1.62)	18 (3.99)	2 (0.26)	
Adult/Vocational Education	217 (17.61)	58 (12.86)	159 (20.36)	
Current alcohol users,	179 (14.53)	89 (19.73)	90 (11.52)	0.000
Current smokers	175 (14.20)	90 (19.96)	85 (10.88)	0.000
Daily salt intake, gram	13.10 (8.08)	13.06 (7.53)	13.11 (8.35)	0.921
Daily fruits intake, servings	1.19 (0.61)	1.18 (0.61)	1.19 (0.62)	0.932
Daily vegetables intake, servings	1.64 (0.62)	1.71 (0.71)	1.60 (0.56)	0.045
Any vigorous physical activity (Work, commute or leisure time related)	214 (17.4)	104 (23)	110 (14.10)	0.000
Body Mass Index, kg/m ²	23.97 (3.97)	23.25 (3.72)	24.38 (4.05)	0.000
Waist Circumference, cm	81.89 (11.84)	83.02 (10.96)	81.24 (12.27)	0.011
Systolic blood pressure, mmHg	124.38 (34.71)	125.08 (20.07)	123.97 (40.85)	0.586
Diastolic blood pressure, mmHg	77.21 (11.32)	77.76 (11.08)	76.89 (11.46)	0.198
Prevalent hypertension	372 (30.19)	156 (34.59)	216 (27.66)	0.011
Undiagnosed	173 (46.51)	76 (48.72)	97 (44.91)	0.467
Prevalent diabetes	92 (7.47)	32 (7.10)	60 (7.68)	0.706
Undiagnosed	336 (27.7)	128 (28.38)	208 (28.63)	0.507
Prevalent coronary artery disease	14 (1.14)	8 (1.77)	6 (0.77)	0.261
Prevalent heart failure	11 (0.89)	7 (1.55)	4 (0.51)	0.105
Prevalent stroke	6 (0.49)	2 (0.44)	4 (0.51)	0.966
Prevalent peripheral artery disease	1 (0.08)	1 (0.22)	0 (0.00)	0.308
Total Cholesterol, mg/dl	167.16 (36.24), N=432	164.98 (37.07)	168.56 (35.70)	0.317
HDL-C, mg/dl	47.99 (12.68), N=432	46.73 (11.99)	48.79 (13.06)	0.100
LDL-C, mg/dl	89.34 (27.17), N=432	88.26 (26.73)	90.04 (27.49)	0.507
Triglycerides, mg/dl	212.57 (136.36), N=432	222.58 (165.71)	206.10 (113.31)	0.220

Labs were performed in protocol driven high risk patients only as indicated by corresponding N
ASCVD: Atherosclerotic cardiovascular disease, HDL-C: High-density lipoprotein cholesterol, LDL-C: Low-density lipoprotein cholesterol, NCD: Non-communicable disease