Community Health Profile of Four VDCs of North-West Part of Kathmandu,

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ABSTRACT

Introduction: There are different hidden health related problems in community. These needs to be identify and adhered by effective, efficient tools to bring the better outcomes. One of the effective tools for the identification and quantification of the health problems in a community is Community Health Diagnosis. The aim of this study was to find out the common health problems in community, describe the related demographic, education, socio–economic and environmental factors and to convey health message to improve health profile of community.

Methods: Four weeks Community Health Diagnosis was conducted in four selected VDCs after feasibility studies in 16 VDCs. Sample size households (HH) were calculated based on morbidity status of each VDCs. Students covered allocated number of Households in each VDCs by selecting household with convenience sampling method.

Results: In all studied VDCs, nuclear family was the commonest, CBR and literacy rate were good compared to national figure. Population pyramid showed that active age group was more in these VDCs. There was lack of government tap for drinking water and latrine. Maternal parameters were found to be better than national figure.

Conclusions: Though there is more illiteracy rate in all studied VDCs compare to national figure, maternal parameters, child health indicators and fertility rates are better which may be the impact of effective health education.

Keywords: health profile, VDC, community.

INTRODUCTION

There are different hidden health related problems, which must be playing vital roles on health status of community. These need to be identified and adhered by effective, efficient tools to bring the better outcomes[1]. One of the effective tools for the identification and quantification of the health problems in a community is Community Health Diagnosis[2]. Community health profile is the description of community health problems and the contributing factors in relation to demographic, education, socioeconomic, environment in community.

The MBBS curriculum of medical institutions of Nepal has been focusing on community based approaches and is still guided by the same notion[3]. Based on curriculum Community Medicine Department conducted this study as Community health diagnosis for the first year MBBS students. In four selected VDCs, this study was carried out to identify the common health problems in community; to describe the demographic, education, socio–economic and environmental factors that influence on the health aspect of the community people.

In this process epidemiological skills were applied to examine the community as patient and identify the factors that influence the health of community. Study on community health profile was conducted to reveal the

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main health problems affecting the community and to identify the factors influencing health with developing the health messages to address them.

METHODS

Based on curriculum of MBBS, a four weeks Community Health Diagnosis was conducted by Community Medicine Department of Nepalese Army Institute of Health Sciences in October 2012 to study community health profile. For this purpose the department had done feasibility study before hand in 6 VDCs selected among 16 VDCs situated around the college. Based on findings of this study 4 VDCs (Ramkot, Sangla, Bhimdhuga and Dahachowk) were selected for community health diagnosis. 100 first batch MBBS students were divided into 4 groups (25 in each group) for four VDCs. Each group was supervised by a faculty and was also assisted by female community health volunteer (FCHV) of each VDC. The tools used included pre-tested questionnaires, observation checklist weighing machine (for children and adult) and measuring tape. General information of four selected VDCs is described in below table.

Sample size households (HH) for study at each VDC was calculated based on morbidity status of each VDCs. That was 277 HH for Ramkot, 209 for Bhimdhunga, 250 for Dahachowk and 217 for Sangla. Students covered allocated number of households in each VDCs by visiting every wards of VDC and household in each ward selected with convenience sampling method.

The topics covered in the household survey questionnaire included: Demographic profile, Educational status, Occupation, Educational level, Morbidities, Health and Sanitation, MCH related parameters and family planning,

After the data collection, compilation and analysis done using SPSS version 17.4.

RESULTS

Nuclear family is more common in all study VDCs than other type of family (Table 1). The CBR per 1000 population, was 22.4% for Ramkot, followed by 16.2% for Bhimdhunga, 14.7% for Sangla and 9.3% for Dahachowk.

In relation to educational status, illiteracy rate was 20.7% at Bhimdhunga, 19% for Sangla, 15% for Ramkot.

Most common age group in all VDCs was 15-30 years (Figure 1).

In relation to housing of all VDCs compared to national figure, all VDCs except Ramkot (Kaccha 39% and Pukka 46.6%) have more Kaccha house than Pukka house. Similarly as in national level maximum number of houses in all VDCs (Dahachowk 90%, Bhimdhunga 95%, Sangla 78.6%, Ramkot 92.6%) have latrine. However gap between latrine yes and no is more in all VDCs than national level. Regarding source of drinking water at national level government tap and spring is more common than others; however there is variation in common source in all VDCs. In all VDCs maximum people use soap and water for washing hand, whereas some use ash & water (Dahachowk 1.9%, Bhimdhunga 2.6%, Sangla 3%, Ramkot 0.8%).(Table 2)

In all VDCs maximum women conceived during age at 20-34 years (Dahachowk 82%, Bhimdhunga 85%, Sangla 85%, Ramkot 80%) where as at national level more common during less than 20 years. In all VDCs maximum pregnant women have antenatal checkup (Dahachowk 85%, Bhimdhunga 90%, Sangla 68%, Ramkot 81%) which is close to national figure (85%) and same with TT injection status. Current user of family planning is around 75% in all VDCs which is lower than national figure. (Table 3)

In relation to under five children health shows nutritional status is good which reflect that community focused on food for children for their growth and development (Figure 2).

Most prevalent health problems in all VDCs are chest problem (Dahachowk 13.7%, Bhimdhunga 14.2%, Sangla 10.2%, Ramkot 13.9%) that is mainly common cold and cough, and also include few cases of tuberculosis. Gynae problems and intestinal problems followed chest problems in all VDCs (Figure 3).

Regarding the treatment of diseases in all places maximum people visited government health facility (Dahachowk 53%, Bhimdhunga 78%, Sangla 76%, Ramkot 81%) which reflects the availability and application of good services .

Table 1. VDC Characteristics

Characters	Sangla	Bhimdhunga	Dahachowk	Ramkot
Total area	5.98 sq.km	NA	0.37 sq km	NA
Total population	3021	2800	4491	6650
Male	1544	1420	2155	3272
Female	1477	1380	2336	3228
No of household	553	500	829	1200
Literacy rate	63.42%	83.2%	40%	83.21%
Main occupation	Agriculture	Agriculture	Agriculture	Agriculture
Health facility	Health post	Sub- Health post	Health post	Sub- Health post

Table 2. Demographic parameter of villages studied

Family types	Dahachowk (%)	Bhimdhunga (%)	Sangla (%)	Ramkot (%)	Nepal (%)
Nuclear	56.76	54.20	62.03	61.88	
Joint	39.77	29.80	36.84	33.72	
Extended	3.47	16.00	1.13	4.40	
Educational status					
Illiterate	NA	16.80	23.14	17.95	4.63
literate	NA	10.20	9.86	10.76	3.97
primary	NA	20.70	19.18	15.24	39.04
lower	NA	13.00	15.06	12.17	20.29
secondary	NA	16.30	18.40	18.13	11.54
higher education	NA	17.70	14.36	25.75	20.54
Fertility rates (CBR/1000 People)	9.3	16.2	14.7	22.4	24.3

Figure 1. Age-sex pyramid of 4 VDCs compared to that of Nepal & Kathmandu.
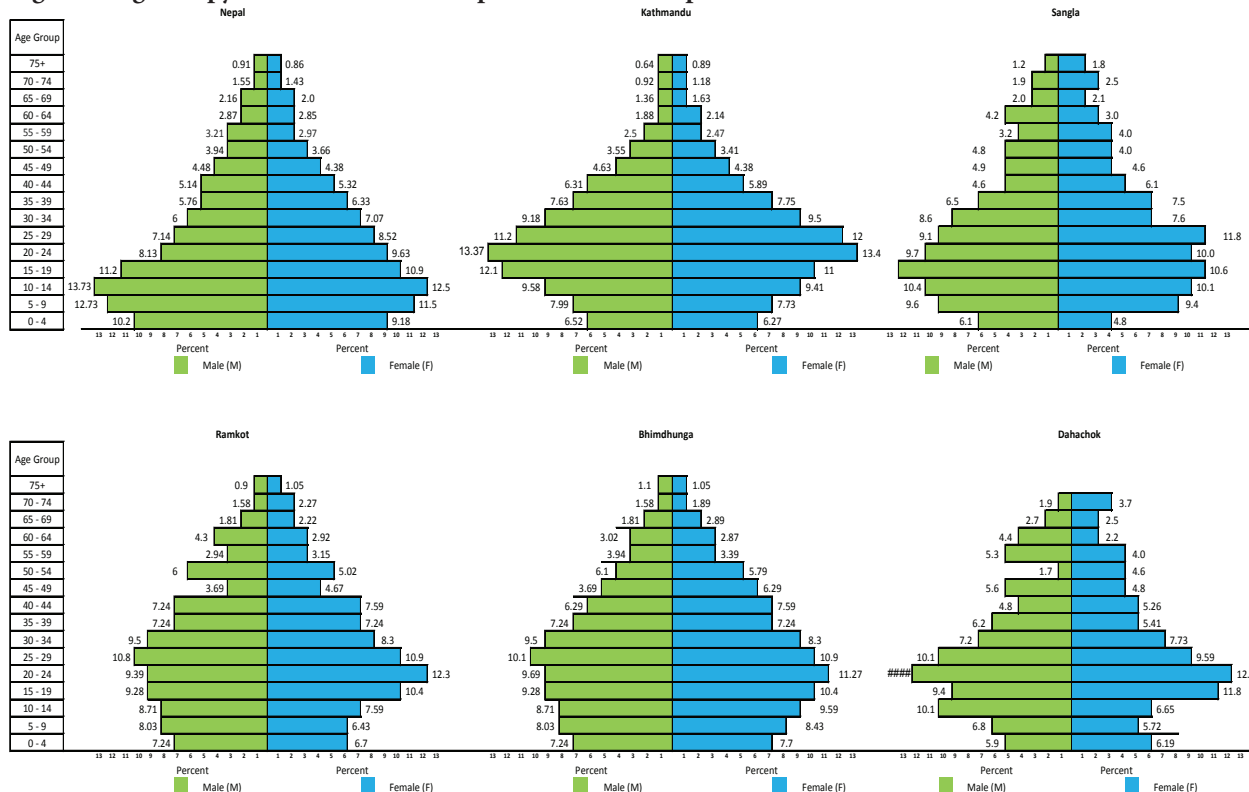
Table 2: Housing, sanitation and personnel hygiene related parameters of 4 VDCs

Source of Drinking water	Dahachowk (%)	Bhimdhunga (%)	Sangla (%)	Ramkot (%)	Nepal (%)
Spring	17.37	51.60	17.67	46.63	45.58
Government Tap	34.75	15.60	52.63	22.87	47.78
River & Stream	40.15	6.70	11.28	9.97	1.12
Well	5.02	4.40	9.02	5.28	2.45
Others	0.00	21.80	9.40	15.25	3.07
Latrine at Home					
Yes	90.35	95.10	78.60	92.96	61.59
No	9.65	4.90	21.40	7.04	38.41
Personal hygiene					
Soap and water	66.10	77.33	95.0	97.36	NA
Ash and water	1.90	2.67	3.0	0.88	NA
Water	32.00	19.56	1.0	1.47	NA
Others	0.00	0.44	1.0	0.29	NA
Housing Type					
Kaccha	57.14	57.80	65.80	39.30	44.21
Kaccha/Pukka	22.39	24.40	17.70	14.08	17.57
Pukka	20.46	17.80	16.50	46.63	38.23

DISCUSSION

In all studied VDCs, in relation to demographic parameters, there is maximum nuclear family, CBR and literacy rate is good compared to national figure. Based in population pyramid it shows that productive active age group is more in these VDCs which is good for the community and it might be due to opportunities of employment in city of Kathmandu. In other sense, shape of pyramid of all places shows following similar fertility and mortality trend as of national level.

In relation to sanitation, though these VDCs are in Kathmandu there is lacking of government tap for drinking water, absence of latrine and using ash for washing hands in some households, which needs to be addressed to decrease the health problems like intestinal problems in the community. In relation to maternal parameters, results are better than national figure which shows that FCHV activities are effective and utilization of hospital for maternal care is good. For other health related problems community visit more to government facilities than private which shows that services provided at availed government health facility is satisfactory for the community. Good literacy rate reflects satisfactory antenatal check up and satisfactory nutritional status of child health.

After identifying the priority health problems students had done different activities as micro-health project like health rally, DOTS treatment for TB, misconception of treatment through Dhami-Jhakri, Sugar salt solution, proper hand washing, these activities help to increase the health awareness in the community so that they could able to tackle the problems.

CONCLUSIONS

Though illiteracy rate is more in all studied VDCs compared to national figure, maternal parameters, child health indicators and fertility rates are better which may be the impact of effective health education.

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Table 3: Maternal parameters (Antenatal checkup, TT injection during pregnancy, Age at time of pregnancy and Current users of family planning of All VDCs): (Annual Report of Department of health services 2010-11)[6]

Characteristics	Dahachowk (%)	Bhimdhunga (%)	Sangla (%)	Ramkot (%)	Nepal (%)
Antenatal check up	85.00	90.0	68.00	81.0	85.0
TT injection during pregnancy	81.36	92.31	40.0	86.01	77.0
Age at time of pregnancy					
Less than 20 yrs	18.0	13.0	15.0	20.0	42.0
20-35 yrs	82.0	85.0	85.0	80.0	35.0
more than 35yrs	0.0	3.0	0.0	0.0	20.0
Current users in Family Planning Methods	76.0	75.0	78.0	74.0	94.0

Fig 2: Child health indicator in relation to Mid upper Arm circumference Measurement
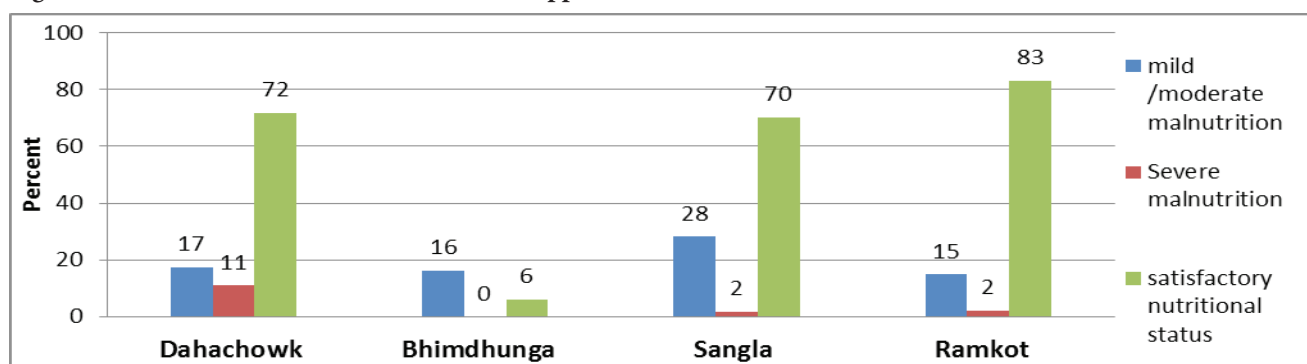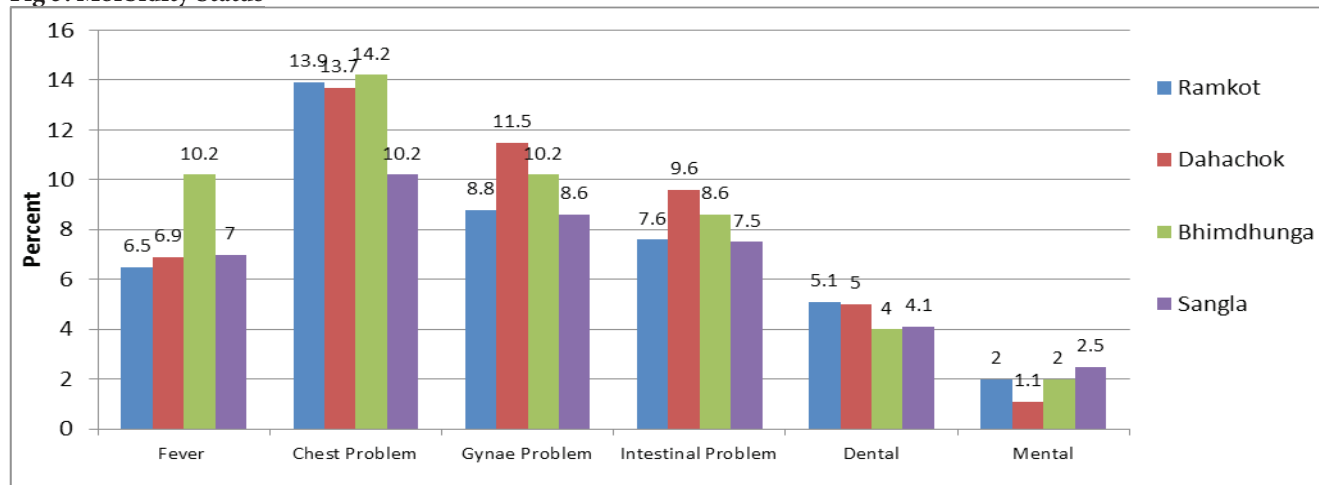

Fig 3: Morbidity Status

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