Fixed Human Resource Norms in Indian Sub Centers - Does the Changing Times Necessitate Innovations?

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Abstract--- This study was conducted to understand the existing workforce availability and need for differential staffing norms within diverse contexts of sub centers (SCs). This included documenting the emerging patterns of SCs, studying the existing staffing norms, and assessing the ranges, quantum of services, work-pattern and work-load of service providers. Multiple case studies were used to document the diverse contexts of SCs along with review of secondary data. In-depth interviews of 97 service providers including Auxiliary Nurse Midwives (ANM), Multi-purpose Worker Male (MPW-M) and Rural Health Practitioners (RHP) was conducted to assess the characteristics, work-pattern and work-load across 69 sub-centers in Haryana, Chhattisgarh, Kerala, Assam, Rajasthan, Uttar Pradesh (U.P) and Meghalaya. SCs across these states were differentiated into various types i.e. collocated in Primary Health Centers (PHC) or standalone, delivery huts or non-delivery huts and Non-Communicable Diseases (NCD) clinics. While SCs in most states were providing minor symptomatic treatment, Antenatal Care (ANC), immunization services through outreach work, in few states, the focus had shifted from Maternal & Child Health Care services to detection of NCDs and adolescent health. This study found inter- and intra- state variations on workload, work pattern, staff deployment, Out Patient Department (OPD) attendance and areas of work of the staff deployed in SCs. Similarities and variations on workload and work pattern across SCs were observed across the state. Majority of SCs showed variations in terms of average number of villages, population served and geographical contexts across states. Assam SCs had heavy OPD attendance of upto

33 cases per day due to deployment of an additional mid level health worker in the form of RHPs while other states (i.e. Haryana, Chhattisgarh and U.P) had relatively low OPD attendance of upto 5 cases per day. While the Indian Public Health Standards (IPHS) prescribed 2 ANMs and 1 MPW (M) at each SC, the study found that 37 SCs (53.6 percent) had only 1 staff in place as observed in 6 states except in Assam where 8 SCs had 1 RHP at each SC along with either 1 or 2 ANMs, out of total 15 SCs studied. Staffing pattern at SC did not consider the geographical, social and work characteristics of SC. Our study findings demonstrates that flexible staffing norms is necessary which should be based not only on caseloads, but certain factors i.e. population served, emerging characteristics of the SC and geographical accessibility should be considered for rational deployment of ANMs at SCs. Besides, skill building of staffs, deployment of second ANM and an additional health worker i.e. RHP are crucial for optimal delivery of assured services at SCs. It could be complemented by adoption of locally appropriate retention strategies for staffs.

Keywords--- Auxiliary Nurse Midwives, Indian Public Health Standards, Multi-Purpose Worker (Male), Rural Health Practitioners

I. INTRODUCTION

THE emphasis of primary health care in India has been on universal access; especially for the rural poor and national program planning has been subjected to modifications based on local conditions, needs and circumstances [1]. The Alma Ata Declaration advocated the provision of first contact services and basic medical care within the framework of an integrated health services. [2].

The Mudaliar Committee, in 1961, was the first to conceive the idea of having three grades of nurses including Auxiliary Nurse Midwives (ANM) as well as male and female health workers or Multi Purpose Worker (MPW) at grass root level for serving a population of 3000-3500 [3]. Currently, under the Indian Public Health Standard (IPHS) norms, each sub-center has to be staffed by one ANM/ Female Health Worker and one Male Health Worker. Under the National Rural Health Mission (NRHM), there is a provision for one additional second ANM on contract basis.

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A Sub Center (SC) is the most peripheral and first contact point between primary health care systems and community. [4]. SCs are assigned tasks to provide basic maternal and child health services, family welfare, nutrition, immunization, diarrhea control and control of communicable disease programmes [5], [6]. Constraints in optimal utilization of these services are due to the geographical diversity and wide dispersion in population within the hamlets served by these SCs [6]. Significant shortage of human resources was observed especially when taken in relation to, topography, job responsibilities and prevalence of several factors that seriously affected performance of SCs. [7]. Better communication and advocacy between the Village Health and Sanitation Committees (VHSC) and the Local Block Level Health and Administrative Officers lead to better service utilization by the local population, resulting in improved health outcomes [8].

A. Study Rationale

The nature of SCs has been changing rapidly within and across the states. SCs are no longer sites for normal delivery of the pregnant woman in Kerala, Punjab, Chandigarh and Nagaland. A significant portion of immunization services and ante-natal care are being provided in Primary Health Centers (PHC) in Tamil Nadu. To fill this vacuum in workload, these states have introduced programmatic interventions in areas of non – communicable diseases (NCDs) and adolescent's health. In other states also, SCs has been reduced to an outreach center for providing immunization and antenatal care without any midwifery function [9].

B. Study Objectives

In this context, the study was conducted to understand the need for flexible staffing norms within diverse context with the following objectives:

- Document the emerging patterns of sub-centers
- Study the existing staffing norms
- Assess the range & quantum of services
- Work-pattern and work-load of service providers

II. STUDY DESIGN AND METHODS

Mixed methods were used with quantitative and qualitative components. Qualitative research based on multiple case

studies was used to examine the existing service delivery patterns and facilitate exploration of variation within different contexts of SCs. Multiple case studies and desk reviews were used to document the diverse contexts of SCs, available workforce and existing practices.

A. Secondary Data Review

Secondary data from NRHM Routine Health Management Information System (HMIS) was analyzed to explore and understand the multiple facets of SCs namely human resource deployment, infrastructure, population served and services delivered. HMIS data of 1-year period (August 2010 to July 2011) was studied with regard to Reproductive Child Health (RCH) performance, general Out Patient Department (OPD) and laboratory services to see if there was any relation between performance, population served and staffing.

B. Primary Data Collection

In-depth interview of service providers was conducted using semi-structured questionnaire to gain insight on work pattern, workload and functionality of SCs.

C. Study Sample

Purposive sampling method was used for selection of samples at different levels - states, districts, blocks and sub-centers. Seven states were selected from five regions viz. north, west, east, south and northeast with representation of Empowered Action Group (EAG) and non-EAG states.

Districts, blocks and SCs were selected on the basis of fourteen (14) identified contexts and key RCH performance indicators (including Antenatal Care load, institutional deliveries, and immunization load) in 6 states and delivery of NCD screening services in Kerala. The 14 contexts chosen in 7 states were near urban, remote area of Haryana, tribal, urban and agricultural areas of Chhattisgarh, urban, median and riverine areas of Assam, semi-urban area of Kerala, densely populated, desert area of Rajasthan, Bundelkhand area of Uttar Pradesh (U.P) and remote hilly area, near urban hilly area of Meghalaya. (ref: Table I)

Besides, location (remote and urban) of SC, geographical accessibility and availability of staff at SC were also considered.

Table I: State wise List of Average Performing Districts

(Source: NRHM- Health Information Management System, HMIS; Sep 2010 to August 2011)

State	Context (district) selected	Performance Indicators of district (Sep'10- Aug'11)			
		% Pregnant women with 3 ANC check up against estimated pregnancies (points)	% Immunized children less than 1 yr. against estimated live births (points)	% Institutional deliveries against estimated deliveries (points)	Total Points
Haryana	Near Urban, remote area (Karnal)	63% (2)	86% (3)	85% (3)	8
Chhattisgarh	Tribal/forest, urban and agricultural areas (Raipur)	46% (1)	52% (1)	53% (2)	4
Assam	Urban (Kamrup),	54% (1)	40% (2)	76% (2)	6
	Median (Kokrajhar),	63% (2)	84%(3)	59% (2)	7
	Riverine areas (Hailakandi)	75% (2)	103% (3)	47% (2)	7

Kerala	Semi-urban area having high OPD load/NCD focus, (Pathanamthitta)	24% (1)	32% (1)	28% (1)	3
Rajasthan	Densely populated (Jaipur),	61% (2)	69% (2)	76% (3)	7
	Desert (Bikaner)	72% (2)	101% (3)	56% (2)	7
Uttar Pradesh	Bundelkhand area (Jhansi)	54% (1)	74% (2)	42% (2)	5
	Remote hilly (East Khasi Hills)	81% (3)	60% (3)	81% (3)	9
Meghalaya	Remote hilly (Jiantia Hills)	52% (1)	100% (3)	54% (2)	6
	Near Urban hilly (Ribhoi)	67% (2)	82% (3)	18% (1)	6

Primary data of interviews was segregated thematically and analyzed to gain insights on work pattern of respondents, functionality of SCs in the last 7 days including the day of interview. Sample of SCs were drawn to have uniform representations as described in Table 1. In-depth interviews of

97 service providers i.e. 84 (87%) ANM, 6 (6%) MPW/Health Worker (HW) and 7 (7.2%) Rural Health Practitioners (RHP) was conducted across 12 districts in 69 sub-centers of 7 states. (ref: Table II)

Table II: Distribution of Sample Size Across 7 States

State	Districts	No. of sub centers	No. of ANM interviewed	No. of MPW (M) interviewed	No. of RHP interviewed
Rajasthan	2	10	13	0	0
Haryana	1	10	12	0	0
Chhattisgarh	1	15	15	0	0
Uttar Pradesh	1	6	6	1	0
Assam	3	15	24	5	7
Meghalaya	3	8	7	0	0
Kerala	1	5	5	0	0
Total	12	69	84	6	7

III. STUDY RESULTS

In 1946, the Bhole Committee Report [1], envisaged establishment of sub-centers (SC) for a population of 5000 in plains and 3000 in difficult areas (tribal, hilly and desert areas). This was reiterated by the Bajaj Committee Report of 1986 [4], in the present context of health care service delivery. Yet there still exists a gap in the required and existing sub centers. As of March, 2010 there are 1, 47,069 SCs functioning with an average coverage of 5049 rural population as against a requirements of 1, 58,792 SCs thus reiterating the fact that are many underserved areas across the country.

A. Deviations from Bhole and Bajaj Committee Recommendations for SCs for Population served

The study findings showed that there are variations across the SCs in various states in terms of average number of villages and population served by each SC. Out of 69 SCs taken up for the study, 24 of them served a population of more than 5,000. (ref: Table III). The study reveals that out of 13 contexts chosen in 7 states, SCs located in median area of Assam served an average number of 10 villages, while the SCs in desert area of Rajasthan served an average of 1 village (SCs in near urban areas of Haryana served an average 7661 population (maximum) while SCs in tribal areas of Chhattisgarh served an average of 2543 population (minimum).

Of the SCs with available data, 11 (27.5%) SCs serving less than 5000 population had 2 ANMs, while 6 (25%) SCs serving 5000 population or more had 1 ANM.

B. Characteristics of Sub-centers

Based on the nature of services delivered, sub-centers have evolved into "Delivery Points" and "Non-Delivery Points" in Haryana, Chhattisgarh and Rajasthan. These SCs are either co-located in PHCs or function as a standalone SC. While Assam is in the process of strengthening sub centers, especially in hard-to-access high focus districts, to deliver comprehensive RCH and OPD services by posting an additional worker in the form of "RHP", Kerala is moving towards making SCs as the first port-of-call for detection & monitoring of NCDs (i.e. Hypertension and Diabetes). Co-located SCs across all states focused primarily on outreach activities as the rest of service delivery is taken care by higher centers attached to SCs.

C. Staffing Pattern at SC

While the IPHS defines staffing norms as 2 ANMs and 1 MPW (M) at each SC and the High level Expert Group (HLEG) recommends 4 health workers (2ANMs, 1MPW and 1 mid level rural health care practitioners) at the SC level [10], [11], this study reveals that staff pattern of 69 SCs ranged from 1 ANM or 2 ANMs with or without MPWs. Of the total 69 SCs, 37 (53.6%) had 1 ANM and 32 (46.4%) had 2 ANMs. Of the 32 SCs with 2 ANMs; 6 (18.7%) had an additional MPW and 26 (81.2%) had no MPW. In Assam, an additional worker in the form of RHP was seen in 8 SCs out of 15 SCs. In Chhattisgarh, 14 SCs situated in three

geographical contexts (tribal, agricultural, near urban) had only one ANM though institutional deliveries took place in 11 of them.(ref: Table III)

The NRHM has a provision of a second ANM [11], with priority at SCs conducting institutional deliveries. Since the

inception of the NRHM, 60,268 ANMs (as on 31st March, 2011) have been recruited on contractual basis. But the study proves that rational deployment still remains an issue as 24 of the 35 SCs (68.5%) where deliveries took place have been staffed with only one ANM (ref: Table III)

Table III: Service Delivery at Sub Center

(Source: Secondary Data of Sub-centers, district report; August, 2010 to July, 2011)

Name of state	Name of Sub-center	Population	No. of staff	SC performance indicators (Aug'10-July'11)					
				OPD	3 AN C	Institutional deliveries	Fully immunized <1 yr	No. of Hb tests done	Malaria slides collected/100 pop
Haryana	Nigdhu	9260	1	772	225	167	199	184	315
	Uplana	6931	2	337	159	106	198	212	602
	Raison	9348	1	779	112	134	NA	148	799
	Ror-majra	7831	1	1570	84	172	184	112	87
	Thal	4939	1	337	46	8	25	56	5
	Gheer	8896	2	862	160	NA	187	243	663
	Shamgarh	8500	2	638	127	88	43	174	501
	Newal	9038	2	375	260	191	212	0	174
	Pathana	6015	2	510	20	103	101	0	625
	Shahpur	3598	2	579	63	66	0	138	506
Chhattisgarh	Gohrapad	2309	1	1571	52	56	76	79	185
	Bardula	2954	1	2038	88	68	72	87	479
	Gargaon	2145	1	1736	50	35	56	50	321
	Indragaon	2675	1	1803	50	60	48	87	253
	Subha	2634	1	2021	81	21	57	80	412
	Kirwai	3285	1	317	NA	NA	0	0	304
	Puraina	3130	1	383	42	22	59	68	340
	Pasaud	3000	1	367	62	41	71	45	425
	Charauda	4380	1	573	104	29	100	19	420
	Shyamnagar	2810	1	138	53	23	48	0	321
	Kendri	5505	1	0	98	44	107	0	460
	Kolar	5933	1	1102	64	2	163	119	1726
	Khorpa	6182	1	403	20	0	0	141	1064
	Sarkhi	4336	1	0	0	0	76	118	604
	Urla	5787	2	312	84	0	153	155	745
Rajasthan	Dudiwali	1500	2	470	20	20	27	72	33
	Khiyera	3305	1	2442	82	137	90	207	18
	Dava	3170	1	522	59	135	127	137	12
	Ghadwala	5363	2	767	141	27	164	157	13
	Surdhana	2204	1	1391	31	0	39	103	11
	Udaipuria	7717	1	1724	119	164	146	373	10
	Kukas	4800	1	1583	56	320	71	103	6
	Mohana	3170	2	853	55	0	338	0	19
	Thali	6500	1	1371	105	44	59	72	0
	Karedakhurd	6000	1	760	28	0	84	0	0
Uttar Pradesh	Baghera	3700	1	659	113	1026	7	0	0
	Bangra	6000	1	NA	NA	NA	NA	NA	NA
	Jiryai	3500	1	51	44	478	49	0	0
	Ghughwa	5000	1	NA	NA	NA	NA	NA	NA
	Jawan	3034	1	72	3	18	42	0	0
	Sakrar	9000	1	275	123	296	136	0	0
Kerala	Melukara	3845	2	0	37	0	65	0	0
	Thumpamon	4135	2	0	0	0	0	0	0
	Pannivizha	5011	2	393	44	0	63	10	393
	Parakode	5008	2	0	0	0	0	0	0
	Chekulen	4144	2	0	40	0	51	0	0
Assam	Moirapur	2943	3	738	52	0	52	77	63
	Sajanpara	3392	3	834	41	0	42	73	15
	Owzari	4742	4	0	71	89	0	0	186
	Chakrapani	2834	4	1631	18	0	41	0	70

	Futuri	4648	5	5650	76	7	102	0	0
	Kacharithal	3795	3	6	80	0	109	0	1363
	Bangalpur	2398	2	4507	38	0	52	0	463
	Gaglacherra	5729	2	3446	94	0	127	0	520
	Lakhinagar	4696	2	383	90	0	136	0	762
	Shamlagaon	4689	2	697	36	0	75	0	482
	Abhyakuti	8561	2	364	145	0	127	0	627
	Bhotgaon	15033	3	267	305	50	303	0	1210
	Borobadha	3633	2	13304	94	0	114	0	316
	Satyapur	2517	4	430	0	0	0	0	0
	Srirampur	8121	3	1365	24	0	170	0	0
Meghalaya	Umlaper	NA	2	133	0	0	20	0	0
	Shashniang	3230	3	230	0	0	55	0	16
	Psir	NA	2	240	0	0	87	0	16
	Thangrain	2650	2	4006	48	0	31	0	244
	Shilang	2537	1	5375	37	0	14	0	576
	Myntang								
	Sonapur	NA	2	2074	21	6	31	0	55
	Nohrun	3106	1	716	14	0	20	0	0
	Wakhaliar	NA	2	1434	8	0	55	16	0

Although the IPHS norms define the ANMs' area of work in maternal and child health, family planning, adolescent health, school health programs and disease control programs among others, the SC functioned primarily as a site for treatment of minor ailments, ANC and immunization services with limited role in delivery of preventive and promotive health services, with few conducting deliveries.

D. Work-Pattern and Work-Load at SCs

This study reveals variations in work pattern and workload of institutional deliveries across states. While in Haryana, Chhattisgarh, institutional deliveries took place in majority of SCs, only a few SCs in Assam conducted deliveries. Majority of ANM in SCs of Rajasthan conducted deliveries ranging from 0-7 cases per week while in Haryana and Chhattisgarh, the range of delivery cases varies from 0-2 cases per week and 0-5 per week. (ref: Table III where maximum and minimum number of deliveries were used for calculating weekly ranges and are highlighted in bold)

We also noted variations in the patient OPD load of SCs across states. Average OPD load ranged from 1-112 cases per week, provided for 2-3 days per week. Majority of SCs in Assam showed very high OPD rates. (ref: Table 3)

It was noted that all SCs provide symptomatic OPD and ANC services at the SC in the morning half on 3 days and conduct VHNDs once or twice a week. The afternoons are largely for household visits and paperwork. They also attend meetings at the PHC once or twice in a month.

E. State specific Work pattern and Work-load

• Haryana Sub-Centers

In Haryana, during a period of 7 working days, the ANM at a normative SC provided symptomatic OPD services from 9:00 AM to 13:00 PM on 3 days with an average load of 1-5 cases per week and provision of ANC services from 9:00 AM to 13:00 PM on 2 days. She attended one immunization session i.e. Village Health Sanitation Nutrition Committee (VHSNC) and visited 2 households for providing post-natal care and counseling services on another day. She conducted institutional delivery, 1 on each of the 3 days and

documentation in one afternoon. Similar work pattern was observed in other sub-centers. Location and contexts of SCs and population served had no linkage with work-pattern or workload of ANM, except at 1 sub-center, where workload was higher than other SCs.

• Rajasthan Sub-Centers

In Rajasthan, the ANM in a normative SC had conducted 3 institutional deliveries in the last 1 week. She provided symptomatic OPD services on 4 days (9:00 AM to 13:00 PM) with an average daily load of 3-4 cases. She organized immunization sessions once a week on Thursday. She had mobilized 3 Post Natal Cases (PNC) to attend the family planning (FP) camps and did documentation on one afternoon (14:00-16:00 PM). She conducted home visits from 14:30 - 16:00 PM on 3 days for follow up of ANC/PNC, Tuberculosis (TB) patients and motivation for FP services. Similar work pattern of ANM was observed in other SCs where no institutional deliveries took place.

• Chhattisgarh Sub-Centers

Of the 15 SCs studied in Chhattisgarh, the ANM at Bardula SC provided OPD & ANC services on 3 days with an average load of 2-3 cases per day. Immunization sessions were held during VHNDs twice a week (Tuesday, Friday) at Anganwadi Center (AWC). She conducted outreach work in afternoon on 3 days and attended the sector level meeting on Saturday. She spent 1-2 hours on documentation. While in the tribal/forest areas, SCs provided OPD services (3-5 cases/day) regularly on 4 days during the week. The ANM conducted field visits in the afternoon. VHND was held on every Tuesday for these SCs. In sub-centers in near urban area, the ANM had attended sterilization camps held once in a week either on Wednesday or Friday. The major role of collocated SCs was primarily outreach work.

• Uttar Pradesh Sub-centers

In Uttar Pradesh, SCs with residential facilities provided round-the-clock services. Two days in a week (Saturday and Wednesday) were scheduled for immunization session. In one of the sessions, the ANM had vaccinated 66 cases (vaccines

i.e. Measles, Bacillus Calmette Guerin (BCG), Diphtheria Pertussi Tetanus (DPT) 1st, and DPT 2nd) and 2-3 cases of ANC. One day in a week (Tuesday) was fixed for staff meeting at PHC and preparation for VHND. OPD services were provided on 4 days. She had conducted 10 deliveries with an average of 2-3 cases per day in last week. She spent 2-3 hours per day on documentation. In one collocated sub center, OPD services were provided only on 1 day (Thursday).

- *Meghalaya Sub-Centers*

We also noted the emerging variation in workload and work pattern in Non-Government Organization (NGO) managed SC, under the Public Private Partnership (PPP) model. In Meghalaya, these NGO managed SCs also revealed that ANMs provided symptomatic OPD services on Friday with an average load of 10-15 cases per day. ANC services were provided during immunization services on Wednesday with an average load of 2-3 cases (both new ANC/follow up cases). She conducted home visits on 3 days i.e. Monday, Tuesday and Thursday where she provided ANC/PNC follow up, drop out cases, collection of malaria slides and blood samples

- *Kerala Sub-Centers*

With regard to variation in the focus of work area, Kerala is the only state that takes up health promotion and education activities for Adolescent Health as well as provision of NCD services. All 5 SCs in Kerala located in semi-urban area focused on provision of NCD services and have common staffing pattern of 1 Junior Public Health Nurse (JPHN) / (ANM) and 1 MPW. The ANM provided ANC services on 2 consecutive days (Tuesday, Wednesday) with an average load of 1-2 cases per day. She organized School Health Program every Monday at school allocated to her. On Thursday, she attended NCD clinic for screening of Hypertension and Diabetes. She had conducted home visits on Tuesday and Wednesday for providing PNC/ANC follow up (2-3 cases). On Tuesday afternoon, she took health education classes for Anganwadi worker (AWW) at the SC and organized VHND at AWC on Thursday afternoon once a week.

- *Assam Sub-Centers*

In Assam, we noted a variation in the staffing pattern as well. SCs in the state have been upgraded with the addition of RHPs to improve range and quality of services. Value addition of MPWs can be seen as the laboratory services and collection of peripheral blood slides for malarial parasites had improved. The ANMs assisted the RHP in providing symptomatic OPD treatment and ANC services on 2 days (Tuesday, Friday) with an average OPD load of 20-30 cases per day and ANC load of 5-10 cases per day. On Tuesday, she distributed *Mamoni/Majoni/Janani Surakshya Yojana (JSY)/Maternal & Child Health (MCH) cheques* to beneficiaries and conducted hemoglobin and urine tests at SC. On Wednesday, she organized VHND session and carried out Information Education & Communication (IEC) activities. On Saturday, she assisted Mobile Medical Units (MMU) team in service delivery. On Tuesday and Friday afternoons, she did documentation and conducted outreach work on Thursday. The RHPs conducted institutional delivery at the sub-center

and the regular ANM provided ANC and assisted RHP in OPD management while the contractual ANM conducted laboratory tests and follow up of cases (ANC/PNC) during home visits. The RHP provided OPD/ANC services on Monday, Tuesday, Wednesday, Thursday, Saturday with an average OPD load of 1-33 cases per day from 9:00 AM till 14:00 PM (ref: Table III)

IV. DISCUSSIONS

States have posted health workers without taking into account the population served, geographical location, accessibility, service delivery or caseload. There is a need for flexible staffing norms that not only depends on caseloads but also other characteristics of sub-centers. Our study reveals that ANMs shared more or less similar kind of work-pattern. Majority of ANMs attend to 1-5 OPD including ANC's cases per day and outreach work are primarily limited to immunization sessions. In SCs with 2 ANMs, population coverage and field visits are divided between them. The maximum institutional delivery load at SCs designated as "delivery points" ranges from 3-5 per week, except in Chhattisgarh. In SCs with RHP, the ANM or MPW mainly assisted RHPs. MPW (M) usually performs laboratory tests. Documentation and record maintenance usually takes 3-4 hours in a week. ANMs are responsible for managing untied funds at SC and VHSC funds. Thus, the workload was determined not only by the location and population but also by the staffing pattern. While in Kerala, the work areas of ANMs have evolved to encompass NCDs and Adolescent Health along with routine activities.

V. CONCLUSION

The rational deployment of ANM/MPW would ensure that 2 ANMs or 1 ANM and 1 MPW (M) are made available in SCs covering larger population; difficult geographical locations covering dispersed population; SCs where institutional deliveries are taking place irrespective of whether they are designated delivery points and SCs with high case loads. MPWs play a key role in National Disease Control Programs (NDCP) and in malaria endemic areas. There is a felt need to revive the training institutions and syllabus to meet current public health challenges. The presence of RHPs in Assam has contributed towards enhanced performance of SCs reiterating the notion that an additional health worker such as RHP translates into higher footfalls provided the role of such workers is clearly defined. Hence, selection, training and deployment of an additional worker for complementing and improving services provided by ANM are crucial.

Sub-centers are also increasingly seen as the first port of call for screening of NCD. Trainings and capacity building of the existing health workers at SCs is necessary to handle these emerging disease profiles.

To be able to retain staff in underserved areas, locality-based "selection of candidates" or "post-training placement" is considered as an important indicator for retention of staff and states need to develop clear "transfer and posting policies" for the same.

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