

Independent Evaluation of Community Based Health Services in Bangladesh

Background

The Alma-Ata Declarationⁱ on Primary Health Care (PHC) emerged as a milestone for the field of public health in the twentieth century, establishing the tenet of 'Health for All' in 1978. PHC is the cornerstone of universal health coverage (UHC), which seeks that everyone has the right to access quality healthcare without facing financial hardship.

In 1998, Bangladesh introduced community clinics (CCs) under community based health services (CBHS) to create a one-stop primary health care service into rural communities. Twenty years have passed since the launch of CCs in Bangladesh. The year 2018 marked the 40th anniversary of the Alma-Ata Declaration and the PHC movement has intensified with the Sustainable Development Goals (SDG) and UHC targets. Having reached this milestone, a robust and independent evaluation at this time was considered timely to help policy makers to better assess progress and draw conclusions on programme effectiveness in relation to its policy goals. In addition, the findings of the independent evaluation will help to devise a long-term future strategic plan for addressing key challenges, expanding best practices and devising interventions in line with changing needs (e.g. ageing and the rapid rise of non-communicable diseases). In this regard, the Ministry of Health and Family Welfare and the World Health Organization (WHO) Bangladesh collaborated in commissioning herA-HAL consortium in 2018 to conduct an independent evaluation of CBHS in Bangladesh.

Objective

The overall objective of the independent evaluation was to determine how the community based health services initiative is contributing to achieving its intended objectives and providing effective and efficient delivery of PHC in Bangladesh. The independent evaluation assessed the following priority areas:

- o Relevance – How relevant is the CCs programme to policy goals, and does the CCs structure fit into the current sector programme including the delivery of integrated package of essential health services (ESP)?
- o Effectiveness – How effective is the CCs in achieving its programme objectives and are PHC services being delivered effectively through CCs? What is the extent and nature of community engagement in the planning and operations of community based programme?
- o Efficiency – How efficient are the services provided at CCs and how have economical inputs been converted to outputs?
- o Scope for improvements – What best practices can be documented and what improvements can be made based on the findings with a particular focus on better alignment with the ESP?

Programme objective of community based health care:

To ensure healthy lives and promote well-being for all ages by increasing accessibility, affordability, and utilization of quality primary health care services.

Methods

The evaluation followed a policy analysis approach based primarily on documentary review and secondary analysis of available dataⁱⁱ. This was enhanced by the collection of complementary primary data (both qualitative and quantitative) from a set of upazila health complexes (UpHC) and CCs to be used as case studies. Data was collected between February to December 2018.

Limitations

A purposive sampling method was used for the selection of sites for the collection of complementary primary data. The criteria for the selection of the CCs included: remote/not remote areas; high performing/low performing clinics (based on number of services provided as indicated in the Directorate-General Health Services dashboard); providing/not providing normal delivery service. The sample was not intended to be representative – the intention was to use the complementary primary data collected to confirm or complement findings from the literature review and interviews. Due to resource constraints technical quality of clinical services were not assessed.

Findings

Relevance: The initial policy goal was to bring services closer to the people, principally to the rural population. Subsequently, the focus changed to improving access and utilisation of services while ensuring the provision of the ESP. See Table 1 for CCs provision of ESP services.

Table 1. Provision of Services by Community Clinics

ESP service element	% of CC providing services		
	BHFS 2014	BHFS 2017	Health Facility Survey 2018
Limited curative care	92.70%	No data	100%
Antenatal care	98.80%	100%	100%
Normal delivery	7.2%	6.5%	19%**
Family planning	<80%	81.6%*	94%
Child health services			
♦ curative care for children	93%	98.8%	No data
♦ growth monitoring	61%	90.1%	100%
♦ vaccinations	86%	95.8%	100%
♦ all (above) three child health services	54%	86.8%	No data
Vitamin A capsule distribution	80%	72.1%	No data

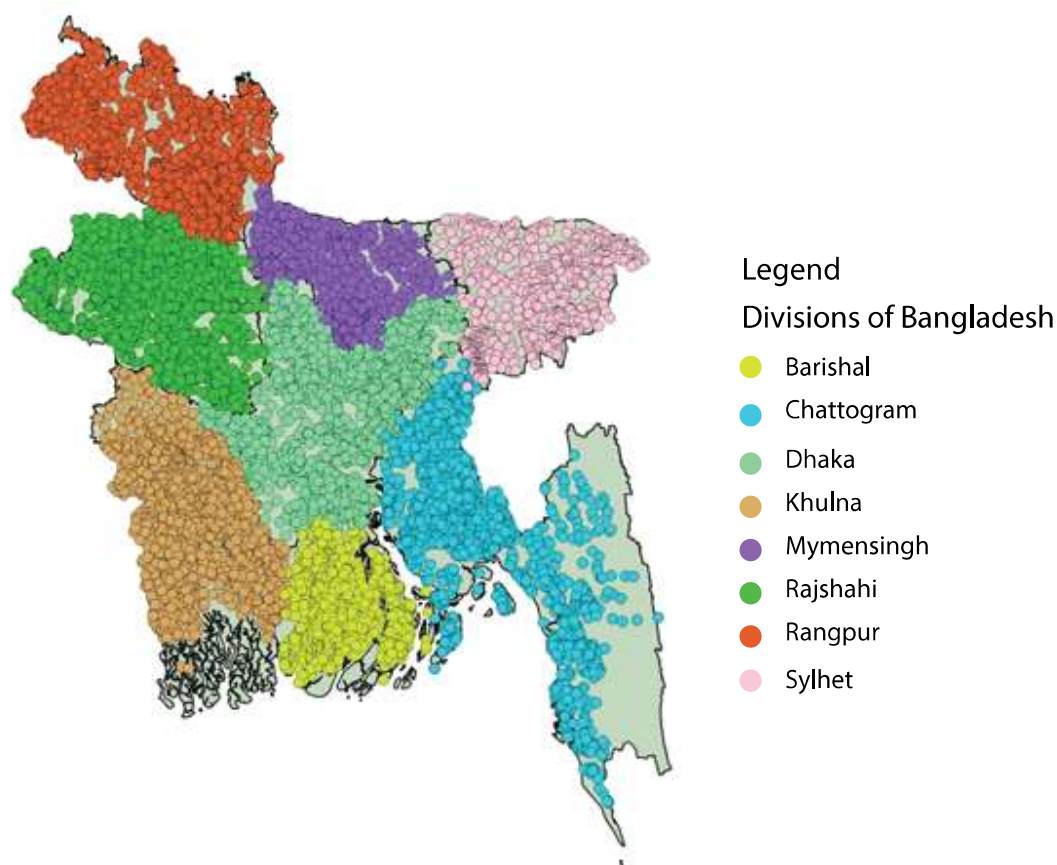
Source: Bangladesh Health Facility Survey (BHFS) 2014ⁱⁱⁱ; BHFS 2017^{iv}; Health Facility Survey Independent Evaluation CBHS 2018; *Percentage offering any modern family planning (including emergency contraceptive). **This percentage may be influenced by our purposive sample that included having CCs where child births were performed.

The established 13,079 CCs (as of December 2017) are functioning as the first point of contact for the delivery of the ESP for people living in rural Bangladesh. CCs are fairly distributed in all rural areas of the country and their concentration was found to vary with population density in rural areas (see Figure 1). Total reported number of CCs visits increased between 2014 and 2017 from 56 million to 88 million^v. Field surveys conducted for this study revealed all income quintiles are represented, with about half (48%) being poor to very poor. All age groups are represented with 13% of CCs users below five and 17% are above 60 (see Figure 2). More than three quarters (77%) of users are women.

Throughout the years, the CBHS in Bangladesh have been aligned with the national policies as defined in successive national health sector plans. The country has made progress in the implementation of CBHS policies, but full implementation faces challenges. The Community Based Health Care operational plan for the fourth Health, Population and Nutrition Sector Plan emphasizes strengthening of the upazila health system (UHS)^{vi}. Currently the linkages within the various levels of care within the UHS are not fully operational. Furthermore, several lines of authority and responsibility persist, contributing to difficulties in integration and coordination, leading to duplications and inefficiencies.

Effectiveness: All three cadres working at CCs level including community health care providers (CHCP), health assistants (HA) and family welfare assistants (FWA) have received their basic training. Staff at CCs confirmed that their basic training was sufficient but refresher trainings they attended seem to respond more to health programme needs and are not always in line with CCs staff capacity assessment or training needs assessment.

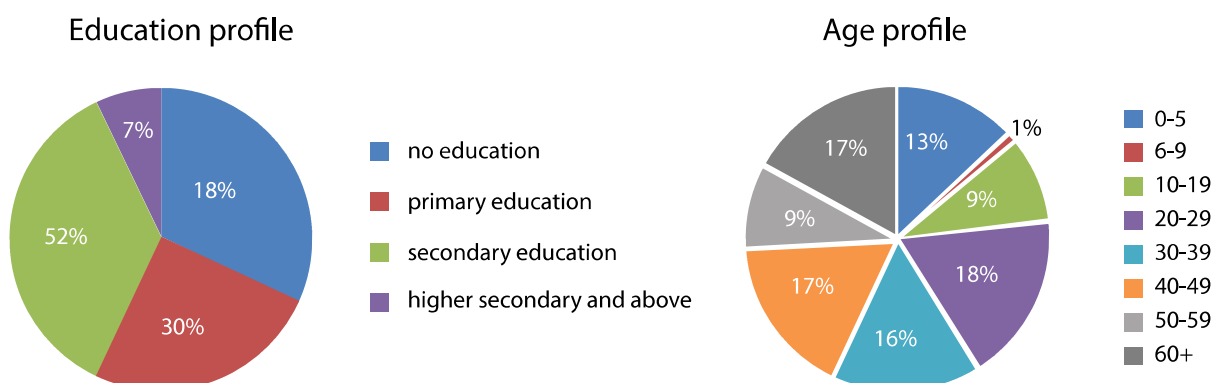
Figure 1. Distribution of Community Clinics



Supervision of CHCP, HA, and FWA is being conducted by various cadres from the UHS using standard checklists that address primarily managerial aspects. Coordination among supervisors is limited. Supervision mechanisms in place are not always perceived as supportive. Provision of feedback with a view of learning is not systematically provided.

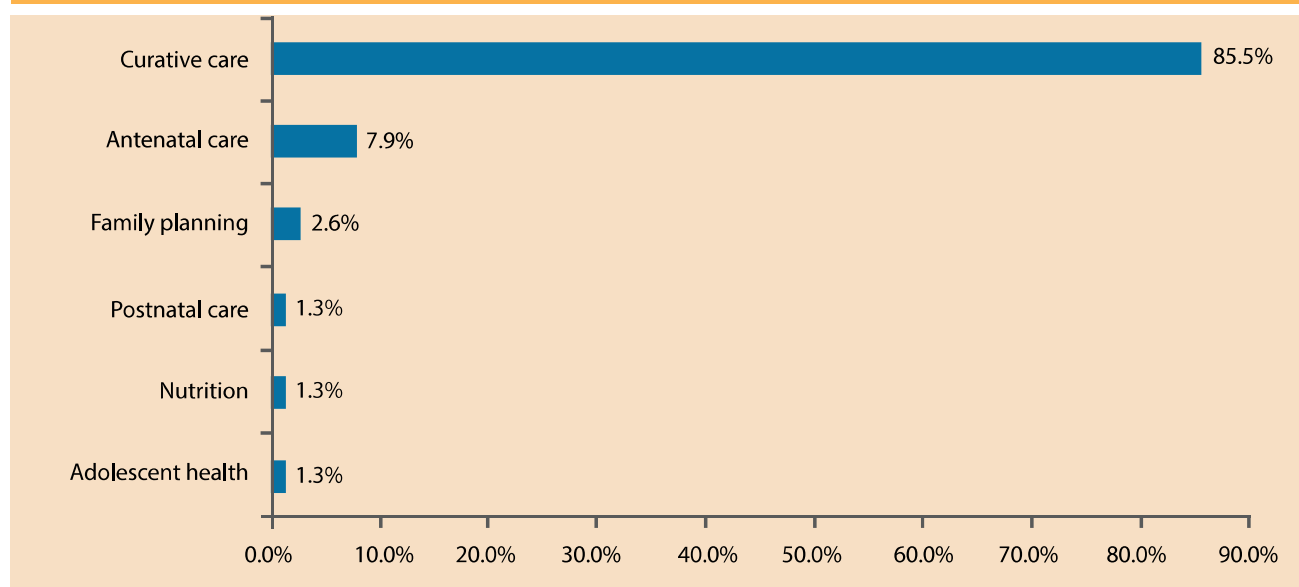
In terms of inputs, such as essential equipment (Table 2), essential medicines, amenities, laboratory facilities and logistics are yet to become fully operational. According to the ESP list of medicines by service delivery tier, CCs should have 27 items available. The facility survey showed that only four out of the 27 items were available in CCs assessed, 56% of CCs have electricity supply, 75% have tube well or piped water supply connections, 50% of CCs have internet connection and 75% have a functioning electronic device used for service information. Majority of patients attending CCs mainly seek curative services (86%) and the demand for promotive and preventive services is low (Figure 3).

Figure 2. Community Clinic User Profile by Education and Age



Source: Client exit survey, Independent Evaluation CBHS, 2018

Figure 3. Percentage of Clients Demanding Services on the Day of the Survey by Category of Services



Source: Client exit survey, Independent Evaluation CBHS, 2018

Currently CCs often refer patients to the UpHC, bypassing the union sub-centre level facilities. A referral slip is not always used. Often the receiving facility is overloaded and does not have a system in place to receive the referred patients in a prioritised way. Feedback and counter-referral are not systematically done.

One of the elements that make Bangladesh's CCs unique is the inclusion and engagement with the community for functions of CCs. The community group (CG) and community support groups (CSG)^{vii} are organised across the country in support of CCs. CG appears to be more active and meet more regularly than CSG according to previous analyses^{viii, ix}. Nargis (2013)^x found that CCs performed better where CGs and CSGs were well functioning. The active participation of a union-parishad^{xi} member facilitates good performance of the CG while a well-functioning CG makes the CCs health workers more accountable.

Table 2. Availability of Basic Equipment at Community Clinics

Basic equipment	% of CC having each type of equipment		
	BHFS 2014	BHFS 2017	Health Facility Survey 2018
Adult scale	84%	88.2%	75%
Child scale	47%	60%	75%
Infant scale	21%		62.5%
Thermometer	<98%	91.6%	87.5%
Blood pressure apparatus	80%	82.0%	100%
Light source	33%	46.8%	25%

Efficiency: When calculating costs, the contribution of the government to the CBHS programme in fiscal year 2017-18 (both recurrent and annualized value of capital costs), fees charged on the beneficiaries in some CCs and contribution of the community, were considered.

Then the benefit-cost ratio of the services delivered by CCs was evaluated. Direct medical cost savings were calculated based on the difference in accrued expenses on medicine, consultation fees and travel costs of CBHS and expenditure that would actually be incurred by beneficiaries if there were no CCs by seeking healthcare from pharmacies, village doctors, private doctors, clinics or hospitals instead.

Findings reveal that the average unit cost of a visit to CCs is substantially lower than the average cost of visiting a village doctor. While the average cost of visiting an informal health care provider is BDT 275 (\$3.27 USD) (Ahsan et al 2014)^{vii}, the average cost of a visit to a CCs is BDT 85.52 (\$1.02 USD)^{viii}.

The results of the benefit-cost analysis show that the total accrued benefits outweigh total costs with a net-benefit of BDT 1,511.51 million (\$18 million USD). The benefit-cost ratio is 1.23 (Table 4), which implies that BDT 100 (\$1.19 USD) investment in CCs generates a benefit of BDT 123 (\$1.46 USD). Thus, investment in CCs can yield 23% financial benefit subject to ensuring CCs are fully functional (i.e. are adequately staffed with competent health workers, equipment and medicines are available, quality services are provided and community engagement is strong).

Table 4. Results of the Cost-benefit Analysis

	Magnitude BDT (in million)	Magnitude USD (in million)
Type of benefit		
Cost saving from medicine *	688.10	8.19
Cost saving from consultation**	5,764.53	68.63
Cost saving from travel costs***	1,741.33	20.73
Total cost saving	8,193.96	97.55
Type of costs		
Cost incurred by government	6,418.18	76.41
Costs incurred by beneficiaries	243.17	2.89
Costs incurred by community	21.10	0.25
Total costs incurred	6,682.45	79.55
Net benefit	1,511.51	18.00
Benefit-cost ratio	1.23	

Source: *based on CBHS central office information on how much medicine was procured in 2017-2018 and medicine cost collected by the evaluation team from local drugstores using structural questionnaire; **based on household income and expenditure survey (BBS, 2017)^{xiv} and Independent Evaluation of CBHS (2018); ***based on BBS (2017) and Hamid (2018)^{xv}.

Conclusion

CBHS is relevant in Bangladesh and has the potential to contribute to the achievement of both UHC and SDG goals. Community health services in Bangladesh have been aligned with the national policies as defined in successive national health sector plans. CCs seems to be relatively accessible to the local communities and functioning as the first point of contact for people living in rural areas. The large majority of users visit CCs for selected curative care and to some extent maternal and neonatal care and family planning. The other ESP components, such as nutrition, child health, adolescent health and noncommunicable diseases (NCD) are lower in demand and more effort is required to raise the demand for and provide preventive, promotive and screening services. CCs have shown to be cost-efficient and a worthwhile investment with a return of 23% if CCs are fully functional.

The independent evaluation also depicted operational challenges that include: gaps in staff training, equipment, supplies, referral system, supportive supervision and monitoring. For instance, refresher trainings need to be better coordinated and integrated among programmes and informed by needs and capacity assessments. The CCs, as the first level static health facility of the CBHS, is yet to assume full responsibility for health, population and nutrition of their entire catchment area population and to conduct their work from a public health perspective. This requires a proactive approach of analysing the health situation, knowing the catchment population, adjusting strategies to prevent and deal with health problems, rather than a reactive approach of mainly providing curative care for minor ailments.

CCs are relevant; however, they need to be strengthened to make their services more effective and efficient and to be better adapted to the new epidemiological situation in the country.

Recommendations

1. *Establish catchment area for each CCs so proper planning for preventive and promotive services can be implemented.* Identify and study the catchment population, analyse their health situation, and adjust strategies to prevent and deal with local health problems. Catchment population for CCs should be introduced into the Management Information System database to record and generate service coverage data.
2. *Create and institutionalize a strategy to ensure CCs implement a set of interventions targeted to promotion, prevention and screening for disease, with more focus on NCD.* Proper guidance should be provided to the CCs staff to conduct these activities, including how to work across sectors and how to engage communities in health promotion and prevention as NCDs are the major cause of death in Bangladesh (66.9% in 2016^{xvi}). Furthermore, this strategy should include an assessment on the suitability of basic treatment of and supply of medicines for specific NCDs such as diabetes and hypertension to be provided by the CCs, under supervision of a higher-level facility.
3. *Develop and implement an action plan for conducting an effective monitoring and supervision system for CCs.* Supervision should be streamlined and harmonised at the local level along with other health facilities under the existing UHS. It should include technical as well as managerial aspects. Adequate budget and time should be allocated for this purpose and the supervisory system monitored for enhancing efficiency as well as effectiveness of CCs.
4. *Conduct a training needs assessment for CHCP, HA and FWA and based on this assessment elaborate and implement a capacity building plan* to avoid trainings being driven by specific programmes instead of actual knowledge and skills gaps required to deliver integrated and people centred care. Trainings should be conducted with interprofessional staffs working in UHS to create more awareness of what services the other levels are providing.
5. *Define and implement an action plan for strengthening the referral system.* Referrals are poorly organized and referral linkages with higher level public facilities are almost non-functional. The referral system needs to link with various tiers of service providers and facilities from community to tertiary levels. Proper referral policies and guidelines can be developed and implemented to improve the referral system and to enhance efficiency in service utilisation across all levels of care.
6. *Elaborate and implement an action plan for renovation and maintenance of CCs. Ensure an annual budget is allocated for regular replacement of essential equipment.* Advocate with the local government and Center for Management and Maintenance Unit of the MOHFW for ensuring budget allocation for effective implementation of this plan.

Footnotes

- ⁱ World Health Organization. (1978). Declaration of Alma Ata: International Conference on Primary Health Care, Alma Ata, USSR. Geneva: World Health Organization. Retrieved from https://www.who.int/publications/almaata_declaration_en.pdf?ua=1
- ⁱⁱ Data included routine Health Management Information System (HMIS) data of the DGHS captured through the online District Health Information System 2 as well as survey data including the Bangladesh Health Facility Survey 2014 and 2017, Bangladesh Health and Demographic Survey 2014, and Maternal Mortality Survey 2016.
- ⁱⁱⁱ National Institute of Population Research and Training (NIPORT), Associates for Community and Population Research (ACPR), and ICF. (2016). Bangladesh Health Facility Survey 2014. Dhaka, Bangladesh: NIPORT, ACPR, and ICF.
- ^{iv} National Institute of Population Research and Training (NIPORT), Associates for Community and Population Research (ACPR), and ICF. (2018). Bangladesh Health Facility Survey 2017. Dhaka, Bangladesh: NIPORT, ACPR, and ICF.
- ^v Although the total number of visits increased, accurate data on average number of visits per CC is difficult to ascertain.
- ^{vi} The Upazila Health System (UHS) comprises of domiciliary services, services through outreach and satellite clinics and services through fixed health facilities at ward, union and upazila level. At the union level, Union Health and Family Welfare Centers (UH&FWC) and Union Subcenters/Rural Dispensaries (USC/RD) are operating under the Directorate General of Health Services (DGHS). There are also some UH&FWC under the Directorate General of Family Planning (DGFP). The CC at the ward level is the lowest level fixed health facility. CBHS is gradually strengthening ties within the UHS. Primary-level health services are delivered at upazila health complexes (UpHC) which are health facilities that consists of basic laboratory facilities, outpatient and inpatient services (up to 50 beds). UpHCs are progressively (and with constraints) taking on the role of overall coordinator of the Upazila Health Systems.
- ^{vii} Community Group (CG) manages the day to day operation of the CC and generate local resources for funding whereas the Community Support Group (CSG) make the community aware of services at CC and help the poor, marginalized and vulnerable group to receive services from CC.
- ^{viii} Baset, K. (undated). A rapid field assessment of Community Clinics: Scope, Role, Expectations, Impact and Challenges (ppt presentation).
- ^{ix} National Institute of Population Research and Training (NIPORT). (2013). Utilization of community clinics.
- ^x Nargis, M. (2013). Scaling-up innovations community clinic in Bangladesh revitalization of community health care initiatives in Bangladesh (RCHCIB).
- ^{xi} Union councils (or union parishads or rural council or unions) are the smallest rural administrative and local government units in Bangladesh. Each Union is made up of nine wards. Usually one village is designated as a ward. There are 4,554 unions in Bangladesh. A Union Council consists of a chairman and twelve members including three members exclusively reserved for women. Union parishads are formed under the Local Government (Union Parishads) Act, 2009.
- ^{xii} Ahsan S. M., Hamid, S. A. and Barua, S. (2014). Utilisation of Formal Care and Out-of-Pocket Payments in Rural Bangladesh. Institute of Microfinance. Working Paper No. 13.
- ^{xiii} Cost of visit was calculated using recurrent cost and annualized capital cost. Recurrent cost includes salary and allowances of CC staff and CBHS headquarter, expenses for procurement of medicine and supplies, training fees, utilities, repair and maintenance; whereas capital cost includes motor vehicles, machinery and other equipment, computer accessories and software, furniture and fixtures, electrical equipment and installations.
- ^{xiv} Bangladesh Bureau of Statistics. (2017). Preliminary report on Bangladesh household income and expenditure survey 2016. Statistics and Informatics Division Ministry of Planning. Government of the People's Republic of Bangladesh.
- ^{xv} Hamid, S.A. (2018). Economic analysis of the existing services rendered by the public health facilities of Bangladesh. Report submitted to Bangladesh Medical Research Council.
- ^{xvi} World Health Organization. (2018). Global health estimates 2016: Disease burden by cause, age, sex, by country and by region, 2000-2016. Geneva, World Health Organization.



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