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PRIMARY HEALTH CARE IN GHANA: THE STRUCTURE AND FUNCTIONS IN RELATION TO PREVENTING NEGLECTED TROPICAL DISEASES

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ABSTRACT — There are three main levels of primary health care in Ghana: The district level health care which is the highest level of primary health care in Ghana serve an average population of 100,000–200,000 people in a clearly defined geographical area. A District Hospitals provide Curative care, preventive care, and promotion of heath of the people in the district. The second level is the Subdistrict health care which serves a population of approximately 20,000. They augment their service coverage with outreach services and refer severe and complicated conditions to the district level. The final and basic unit of the PHC in Ghana is the Community-based Health Planning and Services (CHPS) which aims to improve access to promotive and preventive health care at the community level of an average population 3000–4500 representing two- or three-unit committees of the subdistrict assembly. Mass drug administration is main preventive measure for eradicating neglected tropical diseases in endemic regions of Ghana of which it is best administered through primary and community health care systems in these hotspots areas, according WHO. The CHPS concept places emphasis on delivering essential community-based health services through the active participation of communities' Primary health care is considered in this article as a tool for the prevention of neglected tropical infectious diseases.

KEYWORDS — Community health nurse, Community based health planning services (CHPS), Ghana health service (GHS), community health offices (CHO) Primary health care, neglected tropical infectious diseases.

INTRODUCTION

In 1996 an act of Parliament created the Ghana Health Service (GHS) as an extra-ministerial agency that is outside the civil service, allowing the health sector to change, innovate, and reform health care operations in Ghana. The GHS has adopted a model for community-based service delivery known as then Community-based Health Planning and Services (CHPS) Initiative. The CHPS initiative characterizes the key strategy for changing primary health care and family planning from a focus on clinical care at district and sub-district levels to a new focus on convenient and high-quality services at community and doorstep locations. This national program of service delivery change is achieved by forging partnerships between health care providers and the communities they serve. This was necessary because of the problems that existed then which included:

— In Ghana, geographic access is a major barrier to health care and excess childhood mortality is related to service inaccessibility. Fully, 70 percent of the population resides in communities that are over 5 kilometers from the nearest health facility. Childhood mortality in such communities is 40 percent higher than in communities located within 5 kilometers of health facilities.

— There is great disparity in health status between urban and rural areas. As Ghana entered the 21st century, infant mortality rates in rural areas were 60 percent higher than rates prevailing in urban areas.

— Globally, mortality in rural West Africa is the highest of any region in the world. Preventable morbidity among children explains much of the excess mortality.

— Fertility in West Africa remains the highest of any region in the world. The global fertility transition has yet to begin in rural West Africa, where rural total fertility rates are double the rates observed elsewhere in the developing world.

— Ever since the Alma Ata Conference, Ghana has had a policy of making community-based services available to all through community-based care. With the introduction of the Navrongo Experiment, a feasible means of implementing this policy was successfully demonstrated.

— Effective means of utilizing African traditions of social organization and leadership for organizing and promoting family planning and health services are lacking.

CHPS therefore becomes the adopted model for community-based service delivery by the Ghana health service. It represents the health sector component of the national poverty alleviation program.

The inability of most low- and middle-income countries to achieve the health Millennium Development Goals (MDGs) including Ghana is attributed largely to weak health systems that are not able to provide good-quality, accessible, comprehensive and integrated care. The 2008 World Health Organization (WHO) World health report reaffirmed the importance of primary health care (PHC) systems in improving the health of individuals, households and populations, and proposed four areas for reforms: universal coverage, service delivery, leadership and public policy. Other authorities have described PHC as the foundation of health systems, as it ensures that all people stay as healthy as possible and obtain care when needed. The Primary Health Care Performance Initiative describes a working PHC system as: When primary health care works, people and families are connected with trusted health workers and supportive systems throughout their lives, and have access to comprehensive services ranging from family planning and routine immunizations to treatment of illness and management of chronic conditions. Health systems built on strong primary health care are more resilient, efficient and equitable. Primary health care meets the vast majority of communities' diverse health needs, and ultimately, saves lives. Ghana has made significant progress in health care delivery though there is still more to be done. This paper seeks to showcase the current state of primary health care in Ghana and the shortcomings that needs to be addressed and its role in preventing infectious diseases.

MATERIAL AND METHOD

Analysis of Annual report Ghana health service (2013-2017), Primary Health Systems-Comprehensive case study of Ghana pg. 30), Ghana health service: Community based health planning services operational policy (CHPS), Ghana health: Community based health planning services. Training manual.

RESULT AND DISCUSSION

PHC implementation in Ghana is primarily designed at the district level as a three-tier system where health services are provided at district, sub-district and community levels.

First Level: District level health care:

The highest level of healthcare provision is at the district level where district hospitals provide comprehensive healthcare within the district.

Functions and Roles:

District hospitals are the facilities for clinical care at the district level. District hospitals of Ghana serve an average population of 100,000–200,000 people in a clearly defined geographical area. The number of beds in a district hospital is usually between 50 and 60. It is the first referral hospital and forms and integral part of the district health system. There is a district disease control team in charge of control and prevention of infectious diseases including neglected tropical diseases.

A District Hospitals provide the following:

— Curative care, preventive care, and promotion of heath of the people in the district (Including neglected infectious diseases)

— Quality clinical care by a more skilled and competent staff than those of the health centers and polyclinics

— Treatment techniques, such as surgery not available at health centers are available at the district level.

— Laboratory and other diagnostic techniques appropriate to the medical, surgical, and outpatient activities of the district hospital, Outpatient and inpatient.

District Health Management Team (DHMT) are instrumental in devising innovative strategies to implement CHPS and improve service delivery at the community level. These include:

— Mobilizing communities to construct community health compounds or clinics. (CHC).

— Low-cost community construction has greatly expanded health service coverage.

— Building political support for health has led to collaboration between District Assemblies and DHMT in marshalling district development funds for CHC construction. In a few districts, this innovative mechanism permits the participation of grass-roots politicians in health development, and utilizes mechanisms of international development donors, such as the European Union, for innovation in health services.

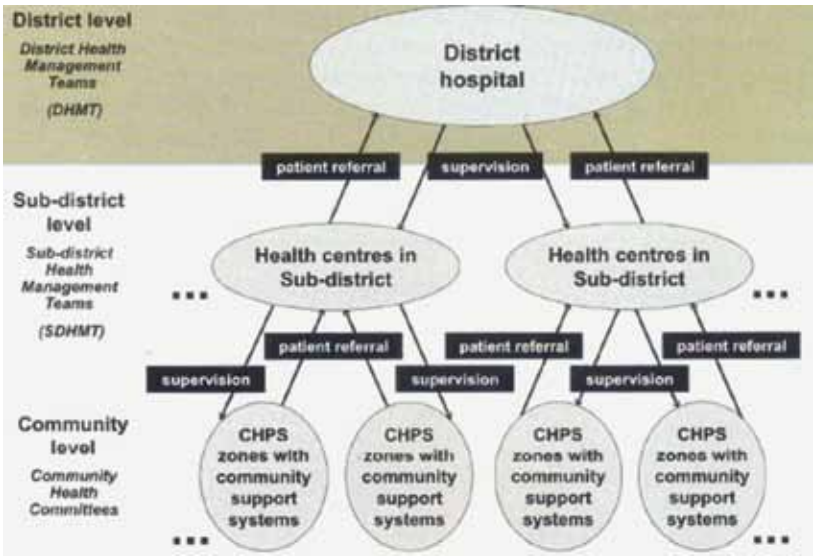
— Community-based planning improves DHMT utilization of

— resources and develops activities that are in connection with local cultural conditions and local needs.

The second level: Subdistrict-Health center and health post: This second level is effective in terms of preventing infectious disease.

The health center has traditionally been the first point of contact between the formal health delivery system and the client. It is headed by a Medical Assistant and staffed with program heads in the areas of midwifery, laboratory services, public health, environmental, and nutrition. Each health center serves a population of approximately 20,000. They provide basic curative and preventive medicine for adults and children as well as reproductive health services. They

Structure of primary health care in Ghana



provide minor surgical services such as incision and drainage. They augment their service coverage with outreach services and refer severe and complicated conditions to appropriate levels usually.

Functions and role in preventing and eradicating neglected tropical infectious diseases include:

1. Collecting data on community health and volunteer programs for the district health manage, end team on neglected tropical diseases in this area.

2. The manage supplies and monitor usage of the medication for chemotherapy in preventing neglected tropical diseases as well as other diseases.

3. They, in collaboration with the district health management team and the community-based health and planning service (CHPS) draw up the program for the preventive chemotherapy within the sub district.

4. They, in collaboration with community-based health planning services (CHPS) recruit volunteers to help in the mass drug administration.

5. They also with the CHPS program plan programs for health education in the subdistrict on different health issues including neglected tropical disease

6. Writing reports on any progress made with regards to tropical infectious diseases to the district health management team

7. They monitor the work of the community-based health planning services program in dealing with disease control including tropical diseases.

The third Level: Community-based Health Planning and Services (CHPS):

In Ghana, the Community-based Health Planning and Services (CHPS) approach to healthcare provision remains the major strategy being adopted for the provision of primary healthcare services. The CHPS concept places emphasis on delivering essential community-based health services through the active participation of communities. The CHPS initiative characterizes the key strategy for changing primary health care and family planning from a focus on clinical care at district and sub-district levels to a new focus on convenient and high-quality services at community and doorstep locations. This national program of service delivery change is achieved by forging partnerships between health care providers and the communities they serve

The sanitary, anti-epidemic and preventive functions against neglected tropical diseases include:

1. They educate the people on the need to keep their sanitation clean as a way of preventing the tropical infectious diseases.

2. They visit the communities, houses and neighborhood with the community task force on sanitation to ensure that people adhere to sanitary measures and failure to do so will lead to the person paying a penalty.

3. They in collaboration with the sub district and district health management team as well the community political leaders to ensures that proper water facilities, toilet facilities, waste facilities and other sanitary facilities necessary are provided.

4. They visit churches, radio stations, organizes durbars to educate the people on prevailing health issues and how to prevent them.

5. They in collaboration with the subdistrict and district disease control unit give out the medications for the preventive chemotherapy by going from house to house in their designated communities and ensures the medications are taken by the people.

6. They also help in giving out mosquito net to prevent malaria and other mosquito related disease like Lymphatic Filariasis.

By 2002, the CHPS program was providing doorstep health care in all regions of Ghana through a program that is supported by Government of Ghana and community resources. The Community-Based Health Planning and Services (CHPS)

Initiative is a national program for reorienting and relocating primary health care from sub-district health centers to convenient community locations. The CHPS organizational change process relies upon community resources for construction works, labor, service delivery, and program oversight. As such, it is a national mobilization of grass-roots action and leadership in health and family planning.

The CHPS initiative enables the Ghana Health Service (GHS) to reduce health inequalities and promote equity of health outcomes by removing geographic barriers to health care. CHPS is a component of government policy agendas, such as the Ghana Poverty Reduction Strategy (GPRS) — which identifies CHPS as a key element in pro-poor health services.

In addition, various sector performance reviews in 2002 commended CHPS as an appropriate way to deliver health care to communities in undeveloped and deprived areas distant from health facilities. The specific elements of the CHPS service delivery model are based on research results demonstrating that placing a nurse in the community substantially reduces childhood mortality and combining with nurse outreach, traditional leader and volunteer involvement builds participation in family planning and improves health service system accountability.

Adopting and implementing the CHPS program begins with District Health Management Team program planning in the most remote and deprived communities of a given district. Communities are mapped, problems are assessed, and a process *community entry* is launched which involves dialogue between health care providers and community leaders. Once leadership responsibilities are clarified, communities are encouraged to raise revenue and convene teams of volunteers to construct village clinics known as *Community Health Compounds* (*CHC*). Successful completion of a CHC is followed by posting a nurse to the CHC. These nurses, termed Community Health Officers (CHO), then become community-based front-line health workers who visit households, organize community health services, and conduct CHC clinics.

Under CHPS, CHO receive advanced clinical and community organizational training enabling them to assume their additional duties and responsibilities as they become resident in the community. These strategies have been developed, tested and have become the success story of CHPS:

— Midwifery training is provided so that CHO can supervise births in the community setting. In Nkwanta and several other districts, the DHMT has trained CHO to be midwives capable of performing the procedure for manual removal of placenta, oxytocin injection for labor management, and emergency obstetric referral.

— CHO work in partnership with community leaders. Practical means of utilizing traditional leadership and communication systems for health and family planning promotion have been developed and disseminated through the CHPS Initiative. Traditional *durbars* are now used throughout Ghana to build community consensus and involvement in health care reform.

— CHO services greatly expand access to family planning by providing comprehensive family planning services at the doorstep.

— CHO community services expand access to primary health care, including immunization coverage. By mobilizing community participation, CHPS improves the efficiency and effectiveness of childhood immunization services. Strategies for mobilizing the participation of men in family planning include outreach to chiefs and elders for the purpose of organizing community *durbars* where leaders speak out for family planning and responsible parenthood. All existing forms of social organization are mobilized in the CHPS initiative for supporting CHO work, including organization of men and women's social networks for family planning and health promotion, and deployment of volunteers for health.

— In the past, attempts to organize volunteer services have been ineffective or even detrimental to child health. CHPS demonstrates ways to develop CHO supervision and referral services that improve the quality of volunteer services and community participation in managing volunteerism.

— In the CHPS approach, volunteer effort is focused on mobilizing labor for clinic construction, mobilizing male participation in family planning promotion, and supporting CHO community health service activities.

— Investment in manpower development: CHO training was initially centralized into program at three training centers. Various problems were associated with the centralized approach: National recruitment and posting procedures result in the assignment of nurses to localities that are far from their homes, where languages, social customs, and community organizational arrangements are unfamiliar. Moreover, the centralized approach deprives communities of involvement in CHO selection and posting.

Currently the national recruitment and posting is done at the district level, where they are familiar with the language, social customs and community organization. Community health workers are only posted within the district they come from or live right after graduating and passing the registered nurses' exams.

Having access to remote villages have been made possible through CHPS program with the available

resources they have. Organizing weekly visits to each community, giving primary care to these people and when necessary refer them to the health post or the district hospitals have been very effective under the CHPS program.

The CHPS program also makes it possible for the community health officers to involve various religious bodies in health education by visiting their meetings to give health talk on important health issues.

THE COMMUNITY HEALTH OFFICERS

the functions of sanitary anti-epidemic and preventive against infectious diseases

They work on these

1. Collecting data on community health and volunteer programs for the district health management team on neglected tropical diseases in this area.
2. The manage supplies and monitor usage of the medication for chemotherapy in preventing neglected tropical diseases.
3. They in collaboration with the district health management team and the community-based health and planning service (CHPS) draw up the program for the preventive chemotherapy within the sub district.
4. The in collaboration with community-based health planning services (CHPS) recruit volunteers to help in the mass drug administration.
5. They also with the CHPS program plan programs for health education in the subdistrict
6. Writing reports on any progress made with regards to tropical infectious diseases to the district health management team
7. They monitor the work of the community-based health planning services program in dealing with disease control including tropical diseases.

These are trained health providers who are to deliver a defined package of health care services. They could be from public or private segment of the health sector though currently almost all of them are from the government sector. They include the community health nurse (CHN), community health nurse midwives (CHNM), midwives, enrolled nurses, field technicians etc.TH frontline staffs are given standard conversion courses with additional midwifery skills in case they don't have them already before being redeployed into their community as community health officers.

The technical service provision will be supported by others within the community especially the following: Community based volunteers, community members, community health committee, mothers and children and community/traditional health delivery personnel (native doctors, traditional birth attendants, herbalists etc.)

The community health officers are expected to deliver a package of essential primary health care and promotion services at the community level. They are expected to pursue a work routine that revolves around home visiting and has its base in outreach by the health provider, rather than a static service base for the client to attend. The idea is to take service to the clients rather than follow the traditional method of expecting the client to seek out the health care provider.

Roles of CHO in the CHPS Zone

1. Planning health services and program with community members
2. Implementing health program with community participation
3. Supervising community level health workers, including health care assistants, TBAs, volunteers, and health committee members
4. Preparing and submitting monthly CHPS activity reports to sub-district

the functions of sanitary anti-epidemic and preventive against infectious diseases

Direct activities

1. House to house Visits
2. Immunization status
3. Health Education
4. Community sensitization on specific health diseases like prevailing infectious diseases
5. Community mobilization for cleanup activities in the community
6. Distribute medication of preventive chemotherapy for neglected tropical diseases
7. Collaborate with community leaders to disinfect water bodies, keep water bodies clean and construct a good toilet and waste facilities

CHALLENGES OF PHC IN GHANA

1. The first relates to the general misunderstanding of the CHPS strategy. Its implementation has largely focused on building compounds (providing infrastructure) and providing clinical services with minimal attention to outreach services which promote preventive and promotive care. This condition, the health sector admits, is the result of constant changes in the standard basic package of interventions to be delivered in a CHPS zone.
2. Additionally, questions have been raised on CHPS service coverage across the country.

In 2012, the health sector estimated that approximately five per cent of Ghana's population had

been reached by CHPS services. In 2016, The number of functional CHPS zones increased by 11%, from 3,951 in 2015 to 4,400 in 2016, although it fell short of achieving the 6,000 CHPS targeted. This raises questions as to whether the strategy is efficient and cost effective in providing PHC services which are supposed to be available and accessible to all.

3. PHC implementation in Ghana is still largely focused on curative care where the emphasis is on removing the immediate cause(s) of signs and symptoms of a disease in an individual. Efforts at addressing the social and behavioral determinants of health are still limited. An individual's health is determined by a complex interaction between individual characteristics, lifestyle and the physical, social and economic environment. These broader determinants of health are also important in ensuring total health care.

4. Inadequate providers (physicians and nurses) to patient ratio, physicians and nurses lacking professionalism, mal-distribution of providers, bad or lack of technology

5. Health Care financing has been a challenge. The national insurance scheme (NHIS) was meant to tackle this issue remains underfunded.

6. Inadequate logistics and transport for the sub-district and community health nurses who will have to travel to different communities to provide health care due.

7. Other challenges include insufficient training for health workers and volunteers, significant deficiencies in working conditions, high level of bureaucracy.

Inadequate primary health care delivery mainly leads to increase in morbidity and mortality.

CONCLUSION

Generally primary health system in Ghana has improved in the past decade in terms of coverage mainly through the community-based health planning services (CHPS) program. The introduction of National health insurance scheme though underfunded has been a huge relieve especially to the poor communities. If the stakeholders: the Ministry of Health, Ghana health service, World health organization and the international partners can address the challenges listed above and conduct more research as to areas where the CHPS program can improved and also extend to CHPS project to any area yet to benefit from the CHPS program, it will be a great achievement for the country's health sector which will have effect on the basic health indexes in the country like infant mortality, morbidity and mortality rate etc. This will eventually have positive effective in implementing the recommendations of WHO for preventing neglected tropical diseases.

We need to develop health education programs and initiatives by the community:

1. Health talk on Radio stations that can be accessed by the community

2. Using megaphones to announce the date and importance of the chemotherapy in the communities

3. Health talks in churches and other religious gatherings

4. Organising durbars in the communities and talking about health issues

5. Health talks in schools, churches, mosques, public gathering within the communities.

6. Erecting bill boards with billboards with pictures of people infected to draw attention to create awareness of the effect of these diseases.

Functions of sanitary anti-epidemic and preventive against infectious neglected diseases

1. Clean up exercises during days that the community people do at home like weeding places that are grown, draining gutters and places that harbor mosquitoes.

2. House visits to ensure the environment is clean and people made to pay penalty if their surroundings are dirty and weedy

3. Disinfection of water bodies and important places against the vectors

4. Provision of free mosquito nets and other mosquito repellants

5. Education or training for medical personnel involved in the mass drug administration for the prevention of neglected tropical diseases.

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