Extended PAA Abstract

Impact of the Community-based Health Planning and Services (CHPS) Program on Maternal Health in the Abura Asebu Kwamankese district in Ghana.

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In 1999, the Community-based Health Planning and Service (CHPS) Initiative was introduced by the Ministry of Health/Ghana Health Service as a national policy for rural health care service delivery. The CHPS initiative has its origins in an experimental research programme known as the Community Health and Family Planning (CHFP) Project, developed and tested at the Navrongo Health Research Centre. Evidence from the CHFP experiment demonstrated that reorienting and redeploying community health nurses to reside in community settings, while mobilising the traditional structures and resources inherent in the community, dramatically improves service delivery and maternal and child health. CHPS is recognized by senior health managers as a key strategy for reducing geographic and financial access to health care and is promoted as the principal means of providing health care services to deprived rural communities.

As part of the efforts to provide quality health care services to all the people in the Abura-Asebu-Kwamankese (AAK) District, the District Health Management Team (DHMT) has a major objective of increasing access to health care using the CHPS strategy. AAK, one of 12 districts in the Central Region of Ghana, has a population of 94,285 and covers a land surface area of 380 sq. km. The district is predominantly rural with the majority of the inhabitants being either farmers or fishermen. It is one of the most deprived districts in the Central Region.

Since August 2000, the AAK DHMT has been actively involved in the CHPS implementation process. Currently the district is managing five CHPS zones, with a goal of expanding to two additional zones in the coming year. The inception of the CHPS programme has led to remarkable successes in health care delivery in AAK District. Inaccessible areas now benefit from the services of Community Health Officers (CHO).

Study Rationale

Though there is compelling anecdotal evidence from community members and frontline health workers on the benefits of the CHPS initiative, there is a lack of quantitative evidence to validate these findings. Such evidence is critical for encouraging national policy decisions related to further financial and human resource investment in the CHPS

initiative. Demonstrating that CHPS works and is successful in improving important health indicators, such as immunization coverage, family planning prevalence and treatment of common childhood diseases, is critical.

Research Methods

Under an initiative of the World Health Organization (WHO), district and regional technical teams throughout Ghana have been trained in "30-cluster survey" approaches to assessing family planning use, immunisation coverage, and health-seeking behaviour. This procedure, which is known as the "Rapid Survey Method (RSM)", has been promoted as a low-cost scientific means of evaluating the impact of family planning programmes, maternal health initiatives, expanded programmes in immunisation, and child health care initiatives. Manuals and procedures have been distributed by WHO.

The underlying concept of extending the RSM concept to evaluating CHPS relates to the logic of "multi-level analysis". In this approach, statistical procedures are used to estimate the effect of community or other aggregate variables on dependent variables that are measured at the individual level. Multi-level analysis is appropriate for evaluating the CHPS programme. When CHPS activities are launched, "zones" are created that define worker catchment populations. Activities are phased in over time in as many as 15 components, with sub-components that expand the number of steps to 20. While steps are not necessarily completely ordinal, most districts that implement CHPS proceed in the order of milestones defining planning, community entry, CHC construction, CHO training and deployment, essential equipment procurement, and volunteer mobilisation. "Exposure" to the CHPS initiative will be defined in terms of cluster-level appraisal of the extent to which these milestone activities have been implemented at points of time in the past. Duration of exposure to component activities represents an explanatory variable that should covary with health indicators if the CHPS programme is having an impact.

Sample clusters in the conventional RSM procedure are small enough so that each will fall unambiguously in a CHPS zone. Where CHPS does not exist and the zones have not yet been created, the score of zero would be assigned to each CHPS exposure indicator. Where CHPS work has begun, and service delivery zones have been designated, the date of onset of exposure to each step in the process would be recorded so that effect of duration of exposure to CHPS activity on indicators of health status could be defined. Statistical procedures would estimate the net effect of each CHPS component activity on health, controlling for the background characteristics of the population.

To achieve adequate statistical power in a district level survey, this approach requires 60 clusters in a given study. For district studies with RSM clusters that have been designated in the past, analytical procedures are strengthened by reusing clusters, thereby reducing the number of clusters required. In a district study with a time series in RSM data, analysis focuses on the role of the CHPS programme as a determinant of health and family planning status among individuals in the most recent RSM survey, controlling for cluster means in health conditions in the past, service accessibility in the past and changes in exposure from the past to the present.

In July 2003, a 60-cluster impact assessment was conducted to determine the impact of CHPS implementation on health indicators in the district . In total, 60 clusters, 938 households and 1314 individual questionnaires were administered to opinion leaders, household heads and women in reproductive age group.

Survey participants responded to questions pertaining to their health seeking behavior, knowledge and attitudes about family planning, child immunization history, and access to services, such as antenatal and postnatal care.

Expected Findings

It is expected that analysis of data will reveal that access to health services, specifically antenatal and postnatal care, was greater for women in CHPS zones compared to those in non CHPS zones. It is also expected that women in CHPS zones will be more knowledgeable about health issues as compared to their non-CHPS counterparts

If proven, these finding may suggest that CHPS is a key health delivery strategy for improving maternal health in Ghana.