Primary Health Care in Pasay City: Summary of Findings, Conclusions and Policy Agenda*

VICTORIA A. BAUTISTA**

Primary Health Care (PHC) as a strategy, employs the twin approaches of citizen participation and intersectoral collaboration. Aside from being a welcome addition to the scanty literature on the implementation of PHC in the urban area, this study on the implementation of PHC in Pasay City also takes into account PHC implementation under a devolved setup. The experience of two pilot or experimental barangays (64 and 181) are compared and contrasted with two other barangays (46 and 182) which were not exposed to PHC. In general, higher performance is noted in the health environment of the two PHC barangays vis-a-vis the non-PHC areas. A policy agenda is also presented to further the implementation of PHC.

Background

Primary Health Care (PHC) was one of the innovative strategies introduced under the regime of President Ferdinand Marcos. It was a realization of the Philippines' commitment in the Alma Ata Conference in Russia in 1978 to undertake this strategy to achieve "health for all in the year 2000." The Department of Health (DOH), then the Ministry of Health, spearheaded its implementation. It was immediately piloted in one province for each of the twelve regions in 1979, and was launched nationwide in 1981.

For the first time, a national agency embarked on this progressive methodology which was juxtaposed to the top-down delivery of health services. PHC, as a strategy, pursued twin approaches which were then quite revolutionary for a centralist public administrative system. These approaches were citizen participation and intersectoral collaboration.

*This is an abridged version of a research report prepared by Victoria A. Bautista, Marylou G. Mariano, Clarisa R. Sia and Emalyn L. Sodusta on "Primary Health Care in Pasay City: An Assessment of Implementation and Performance," prepared by the Center for Policy and Administrative Development of the University of the Philippines College of Public Administration for the Health Research Network, 1995.

**Professor, College of Public Administration, University of the Philippines.

Citizen participation was to be realized by ensuring that community residents actively participated in the management of health and other needs of the locality through the mobilization efforts of voluntary health workers, called the Barangay Health Workers (BHWs). BHWs were to be trained in promotive and preventive health care. They also supplemented the services of health workers in the delivery of the five impact programs such as maternal and child health, and the control of such diseases as tuberculosis, schistosomiasis, malaria and diarrhea. However, while BHWs were expected to mobilize the community for participation, past assessment of this role showed lackluster performance because of the limited training for community organizing. Thus, BHWs merely served as "appendages" of the health workers in delivering packaged programs formulated and designed by the health team (Bautista 1988). However, in twelve sampled barangays from three regions, areas which had been successful in initiating activities through the efforts of the BHWs showed lower morbidity rates (139 to 1000 population) as against 153 to 1000 among the unexposed areas.

The second important strategy propagated was intersectoral collaboration since PHC assumed the importance of weaving in health into the socioeconomic development of the locality. This was to be facilitated by a multisectoral structure to be constituted in each locality (i.e., barangay, municipality, city, province, national) called the PHC Committee. Each was expected to encompass various frontline workers and the private sector which could be tapped to cooperate. Earlier assessments by the Population Center Foundation of more than five hundred barangays in six regions revealed the tendency to rely on the existing coordinative bodies, like the local development council or its nutrition subcommittee as the coordinative bodies for PHC at the municipal and provincial levels (PCF 1986). At the barangay level, barangay captains served as the convenor of the local PHC committee or the BHW. The advantage of the PHC committee was the opportunity it provided to draw intersectoral support for activities which crossed other sectors such as water and sanitation, income generating projects and the construction of other infrastructures like the barangay hall.

When PHC was conceptualized, the target areas were mostly the rural sites since they were assumed to suffer from lack of resources and facilities. Urban areas were programmed much later.

Pasay City was one of the urban sites selected for PHC initiatives in the mid-eighties. However, very little attention had been given to the experiences of urban PHCs. It is for this reason that this study was undertaken. Furthermore, this study also aimed to ascertain the extent of implementation of PHC under a devolved setup of government, since the passage of the Local Government Code of 1991 stipulated the delegation of PHC to the municipal and city mayors.

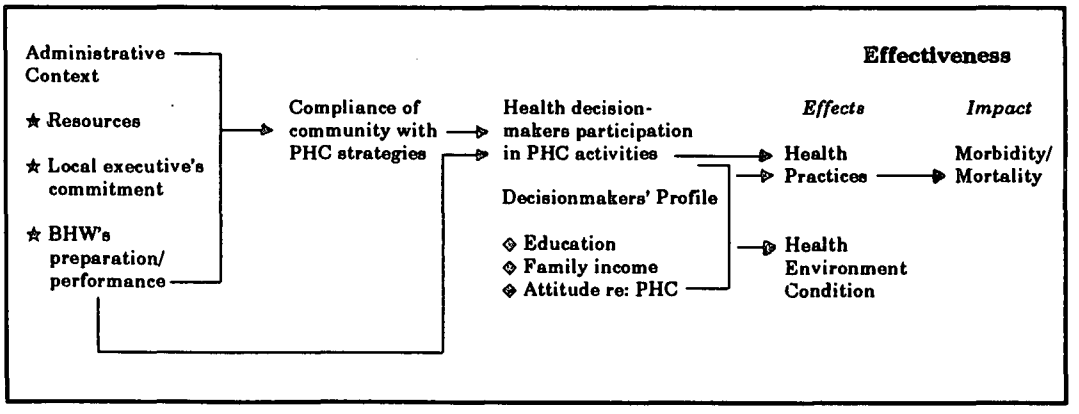
Statement of Problem

This study assesses the effectiveness of PHC in two pilot or experimental barangays (64 and 181) in depressed areas in Pasay City. These are compared with two other barangays (46 and 182) which do not have the benefit of this exposure. Effectiveness is measured by examining the initial effects of PHC implementation such as the health environment condition (HEC) of the households (i.e., access to toilet, water and garbage disposal system; and intake of a well-balanced meal) and health practices (i.e., immunization of children, breastfeeding, care of pregnant women, growth monitoring and family planning). (See Appendix A for the scoring system adopted for this study.) Furthermore, effectiveness is assessed by such impact indicators as incidence of illness and death in the sampled households in the four barangays.

The basic argument in this research is that compliance with PHC approaches (i.e., citizen participation and intersectoral collaboration) enhances health practices and HEC. Improved health practices and HEC, in turn, redound to the control of illnesses/deaths in the community. This is argued because participation enables community members to get actively involved in community decisionmaking. Thus, they are able to define activities that respond to their needs. On the other hand, intersectoral collaboration through the participation of various organizations from government, nongovernmental organizations (NGOs) and people's organizations (POs) could maximize the potentials of various sectors to improve PHC implementation as they altogether serve the multifaceted needs of the community. See Figure 1 for a summary of the Framework.

Participation, in turn, is influenced by the performance of the Barangay Health Workers (BHWs) who are the key persons in mobilizing the community to be organized for involvement in health and related activities. Participation is

Figure 1. Theoretical Framework



herein assessed in terms of the number of activities each is engaged in the process of making decisions on what activities to undertake and in terms also of actual implementation (the former being scored two times more than the latter); and whether involvement is undertaken as a community or as a family member (with the first also scored two times more than the second). Furthermore, the performance of public health service delivery personnel also influences health practices of the community residents in health activities since they are the ones primarily tasked by the local government to undertake this function.

In addition, the households' socioeconomic condition (i.e., educational attainment and family income) influences their level of participation. Those with higher educational attainment and income are more inclined to participate in community activities since they readily appreciate the value of involvement and have less problems with economic self-sufficiency.

Data were gathered from a survey of decisionmakers on health in sampled households in four barangays in Pasay City in March to June 1995. BHWs were also interviewed to gather information about their accomplishments, together with the officers of the Primary Health Care Committees (PHCCs), a local intersectoral body expected to be convened to oversee the implementation of PHC. Secondary data were also reviewed to determine the incidence of illnesses and deaths in the population before PHC was introduced in 1993.

The Study Sites

Barangays 181 (PHC area) and 182 (non-PHC area) are under the jurisdiction of the San Pablo Health Center. Barangays 64 (PHC area) and 46 (non-PHC area) are under the San Isidro Health Center.

Between the two experimental areas, PHC commenced a year earlier in Barangay 181. It was started in 1984. The following year, Barangay 64 followed suit.

Barangay 181 was selected because it was the most depressed area. Barangay 64 was selected because it was the farthest barangay from a health center.

The two health centers covering the four barangays under study have nearly an equal number of health personnel currently in service. San Isidro has a total of seven (7) health personnel while San Pablo has eight (8). Each has a doctor, nurse and sanitary inspector. Two dentists serve each health center. Furthermore, San Isidro has a total of two (2) midwives while San Pablo has three (3).

While the total number of barangays under San Isidro is 27 in all as against only nine (9) for San Pablo, the population coverage of the latter is bigger in number (69,080 persons) compared with San Isidro with a total of 40,586. Thus, the ratio of personnel to the total population is 1:8,635 in San Pablo vis-a-vis 1:5,798 in San Isidro.

Between the two health centers, more commitment to PHC seems to be extended by San Pablo because of the longer hours of training devoted to PHC in Barangay 181. This averages nine hours or more in this area. In San Isidro, this is held for two to four hours only.

In the PHC areas, reconstructing the data has been a lot easier to do for Barangay 181 because of the emphasis given to regular monitoring. The condition in non-PHC areas is even more pathetic since no information could be provided on the health status of the population in the earlier years of PHC implementation.

The tendency to view the BHWs as mere appendages of the health center's programs is indicated by the often-cited argument by health center personnel that many new programs are expected to be implemented by them, often with the assistance of the local BHWs. This leaves the health center with very little time to devote to PHC.

Structures for Primary Health Care

Primary Health Care Committees

Primary Health Care Committees (PHCCs) already existed even before devolution. In fact, one of the major contributions of PHC is the institutionalization of structures enabling local executives to interface with other sectoral implementors. The Barangay Chairman in each area was actively involved in overseeing the implementation of PHC in the early years of its operationalization. However, in Barangay 64, the PHCC is no longer as active as in Barangay 181. It has not been able to convene in the last six months when the research was conducted. The Chairman says he approaches individual members to be able to coordinate their activities. On the other hand, in Barangay 181, a monthly meeting is usually being conducted.

The potential to perform integrated approach in decisionmaking is suggested by the fact that in both PHC areas, various sectors are represented in their respective PHCCs. In Barangay 181, the Barangay Captain is the Overall Chairman with the Chairmen of the following activities as members: Nutrition, Education, Sanitation, Peace and Order and Food. Membership is drawn from the community.

In Barangay 64, the Barangay Captain is also the Chairman of the PHCC. The other officers are the President, Vice President, Secretary and Treasurer and two Public Relations Officers. Field Coordinators are also assigned to such sectors as nutrition, livelihood, water and lighting facilities.

The City Health Office assessed Barangay 181 to be in the third level of PHC since 1990 as it had already started to make initiatives on its own in solving its problems. On the other hand, Barangay 64 was evaluated to be in the second level for having active BHWs, a PHCC and income generating projects as of 1991.

See a summary of the profile of the two PHC barangays in Table 1.

Table 1. A Summary of the Features of the PHC Barangays

Features	*Barangay 181*	*Barangay 64*
Year Started	1984	1985
Level of PHC	III (1990)	II (1991)
Ratio of Health Center Personnel to Population	1: 8,635	1: 5,798
Regularity of PHCC Meetings	Monthly	None in the last 6 months
No. of Hours Devoted to PHC by PHCC Members	8 hours per month	3 hours per month
Time Devoted to PHC Training by Health Center	9+ hours per month	2-4 hours per month

While PHC is supposed to have been devolved to local government units, PHC has not been formally started in the two non-PHC areas.

Local Health Board

With the enactment of the 1991 Local Government Code, a Local Health Board is supposed to be constituted to provide technical assistance to the local *sanggunian* on health matters, including those pertaining to financial allocation. However, no structure of this sort has been formally constituted yet. A semblance of this structure is a committee of three composed of the Mayor, the City Health Officer of Pasay and the Chairman of the Committee on Health who is also a member of the *Sangguniang Panlungsod ng Pasay*. This committee formulates policies and guidelines for PHC implementation.

A PHC Coordinator for the City has been appointed to monitor and oversee PHC activities for the entire area. The PHC Coordinator also happens to be the Administrator of the San Pablo Health Center which explains its better performance than San Isidro.

Barangay Health Workers

Background

Serving as BHW has mostly occupied a married woman's interest. This involvement is often interspersed with her role as a housewife and mother and her other community commitments (i.e., homeowners' association, and other socio-civic and religious commitments). More than half of the BHWs have a previous track record in community development work indicating their commitment to social service.

Problems

Sustaining the commitment of BHWs is also a problem in the two experimental areas. When PHC was introduced in Barangay 181, there were 29 BHWs. Today, the remaining number is about half its original size (14 in all). The same thing is witnessed in Barangay 64 which started off with 27. It has a total of 21 at present.

This dwindling number can be attributed to the expectation by close to half (48%) of them to receive some form of incentive as they assume the role of BHW. Then, there is also a common complaint about the absence of resource support (i.e., for medicines), especially in Barangay 64.

Performance

In spite of the small number of BHWs currently operating in Barangay 181, they average about four hours per month in undertaking their activities as BHWs. On the other hand, the BHWs in Barangay 64 only devote about two hours per month. Thus, more household respondents in Barangay 181 (58%) know their BHWs and have been visited by them (47%) in the last year as reported by surveyed beneficiaries. On the other hand, Barangay 64 respondents have a smaller percentage (43%) of households familiar with their own and have been reached by them (37%). These patterns tally with the BHWs' account demonstrating a bigger percentage of reachout by Barangay 181 (87.6%) of targeted households compared with Barangay 64 (82%).

The activities they actually undertake mostly center on promotive health care through the dissemination of information and the implementation of activities to improve sanitation in the community. Other activities include providing referrals to the public health delivery system, collecting and gathering information for the health center, mobilizing the community for participation and extending curative care.

Health Decisionmakers as Respondents

Respondents total 319 and were randomly selected to represent the population of households from each of the four barangays applying a statistical formula with a sampling error of .1 (or with a reliability of 90%).

The respondents are mostly females (82%), signifying that women perform an important role in making decisions on health matters in the household.

Among the samples from the four barangays, the per capita income is lower for the two non-PHC areas. Barangay 182 has the lowest with ₱839 while Barangay 46 has ₱866. In the case of the two PHC areas, Barangay 181 is more depressed with a per capita of ₱880 among the sampled households. On the other hand, Barangay 64 has ₱1,058.

Citizen Participation

Extent of Involvement

One of the critical features of PHC, as it has been conceived, is the mobilization of the community to enable them to actively participate in the different phases of the management of community activities pertinent to health and related concerns. A small percentage of the households has been involved in community activities facilitated by the BHWs. However, between the two barangays, the performance of Barangay 181 is consistently higher with 37 percent of the respondents claiming this vis-a-vis only 32 percent in Barangay 64.

Furthermore, more activities have been initiated in Barangay 181 with a mean of 1.6 per active household as against only 1.25 in Barangay 64.

However, the extent of involvement in the management processes is clearly leaning towards that of implementation, and very weakly in activity-determination. The conduct of monitoring and evaluation is an activity that is not considered at all. This has been assumed entirely by the BHWs.

Between Barangays 181 and 64, the latter has demonstrated a richer experience in planning the activities in the community. Barangay 64 has 43.3 percent of the household respondents involved in planning. A community assembly was conducted in Barangay 64 to identify the activities to be implemented in the locality. In the case of Barangay 181, BHWs only conducted house-to-house survey in order to determine community problems and needs. Hence, there was very limited opportunity for household interaction in Barangay 181.

Considering other involvements in community activities together with PHC initiatives, PHC areas have an edge over the non-PHC areas. PHC areas' mean involvement (counting both the number of activities and the extent of involvement in management and interaction with other community members) is 2.25 for Barangay 181 and 3.06 for Barangay 64. In the two non-PHC areas, the performance of Barangay 46 is higher with 1.36 while Barangay 182 has .36.

Factors Influencing Community Participation.

The factors positively related with overall participation in the PHC areas are the BHWs' performance, monthly household income and level of satisfaction with public health delivery system. Thus, the impact of the PHC approach and the effectiveness of the health center, other than the income profile of the households influence this factor in PHC areas. On the other hand, the predisposing factor for participation in non-PHC areas is satisfaction with the performance of the public health delivery system.

Viewing the households which are more socioeconomically deprived (having a monthly income of ₱4,000 or less), a lower involvement is demonstrated because of the slightly lower level of participation in PHC areas (with a mean of 1.5 for Barangay 64, and 2.5 for Barangay 181 or an average of 2). In non-PHC areas, not much change is seen in their overall average (or a mean of .85).

See a summary of the factors related to total community participation in Table 2.

Health Environment Condition

Comparative Assessment

In general, a higher performance is noted in the health environment condition of the two PHC barangays vis-a-vis the non-PHC areas showing a mean performance of 31.3 as against 26.7, respectively. Health environment condition refers to availability of and access to water, toilet and garbage facilities; and intake of a well-balanced meal. Inspite of the depressed situation of Barangay

181 and the distance of Barangay 64 from the health center, their Health Environment Condition (HEC) score is considerably better than for non-PHC areas. The higher performance level of PHC areas may be attributed to the concern of BHWs for improving environmental sanitation. In fact, the initial activities of the two barangays center on activities addressing this.

Table 2. Significant Factors Drawn from A Stepwise Regression for Dependent Variable Total Community Participation

Significant Variables in the Equation	*Regression Coefficient*	*Partial R^2*	*Model R^2*	*t*	*Alpha Level*
	PHC Areas				
BHW Performance	1.09	.46	.46	133.2	.0001
Monthly Household Income	.0002	.03	.5	10.6	.0014
Level of Satisfaction with Public Health Delivery System	.7	.02	.52	6.6	.01
Constant	1.2				
	Non-PHC Areas				
Level of Satisfaction with Public Health Delivery System	.26	.05	.05	8.9	.0003
Constant	.13				

Another Factor in the Equation: Educational attainment.

Factors Influencing Performance

Thus, a stepwise regression to determine the factors influencing HEC across the four barangays reveals the importance of four factors, namely: monthly family income, BHW performance, adequacy of public service and respondents' educational attainment. (See Table 3.)

Thus, the impact of PHC is suggested by attribution to BHWs of the general improvement in HEC. On the other hand, other factors are expectedly directly related to HEC such as monthly family income and educational attainment.

On the other hand, an inverse relationship is shown between perception of the adequacy of public service and HEC. This implies that those who perceive public services to be inadequate have aspired more to improve their HEC.

Table 3. Significant Factors in Stepwise Regression Influencing Household Environment Conditions

Factors	*Regression Coefficient*	*Partial R^2*	*Model R^2*	*t*	*Alpha*
Monthly Family Income	.0003	.13	.13	46.6	.0001
BHW Performance	.6	.03	.16	13.2	.0003
Adequacy of Public Service	-.8	.03	.19	1.7	.0007
Resp. educational attainment	.23	.02	.21	8.2	.0045
Constant	26.3				

Focus on the More Deprived Households

A focus on the more socioeconomically deprived households (with monthly family income of ₱4,000 and below) reveals a generally lower performance level among the PHC areas (with a mean of 30.6) than the general average. However, the HEC level of non-PHC areas is even lower with 26.7.

Health Practices

Comparative Assessment

A comparative assessment of the PHC areas vis-a-vis the non-PHC sites on selected health practices prioritized for children (i.e., breastfeeding, immunization and growth monitoring) and for mothers (i.e., immunization in pre- and post-natal states; consultation with medical personnel in pre-natal and post-natal states; and family planning) demonstrates the lack of significant difference between the two areas for most of the health practices, except for growth monitoring. However, the performance of non-PHC areas is even higher for the latter. (See Table 4.)

Table 4. A Comparison of the Health Practices of PHC vs. Non-PHC Areas Based on ANOVA Tests

Health Practices	*PHC*	*Non-PHC*	*t*	*Alpha*
Breastfeeding	2.54	2.5		N.S.
Immunization	1.01	1.2		N.S.
Growth Monitoring (4 yrs. & below)	2.6	3.3	9.4	.0025
Maternal Care	1.5	1.8		N.S.
Family Planning Practices	2.3	2.4		N.S.

Factors Influencing Health Practices

A review of the factors influencing performance as regards each of these health practices in PHC areas alone reveals the impact of BHWs on two health practices. These are breastfeeding and immunization. However, the critical factor for maternal care is educational attainment of respondents. Practice of family planning is attributed to educational attainment.

However, in the case of the non-PHC areas, the significant factor for immunization is the accessibility of the public health personnel. Growth monitoring of children is influenced by total monthly income. In the case of maternal care practices, the influencing factor is educational attainment and adequacy of public health service.

No significant factors surface for such practices as breastfeeding and family planning in the non-PHC sites.

Thus, in non-PHC areas, the importance of the health center personnel factors is for such health practices as immunization and maternal care. This finding is important as this demonstrates that if the public health service delivery channel is working well, a significant improvement may be witnessed in the community, independent of PHC. (See Table 5.)

Comparing the Average and the Socioeconomically Deprived in PHC Barangays

Varying performance levels are noted for two practices significantly influenced by the BHWs (such as breastfeeding and immunization) in the households with ₱4,000 and below income vis-a-vis the general average in PHC areas.

The socioeconomically deprived households have a higher preference for breastfeeding with a mean of 2.8 as against 2.5 for the general average among PHC areas. This may be because the more socioeconomically deprived households tend to rely on this practice because it does not necessitate financial expense.

On the other hand, the average household in the PHC areas has a higher level in immunization practices for children with 1.01 as against only 0.9 in the ₱4,000 and below income-level households. Thus, in spite of the free service extended for immunization campaign in 1993, utilization rate is not as high for the more socioeconomically deprived households.

Table 5. Significant Factors in Stepwise Regression Influencing Health Practices in PHC & Non-PHC Areas

	Health Practices and Influencing Variables	*Regression Coefficient*	*Partial R^2*	*Model R^2*	*t*	*Alpha*
1.	Breastfeeding					
	PHC Areas					
	Assessment of BHW Performance	.08	.09	.06	4.6	.03
	Constant	3.1				
	Non-PHC Areas (No Significant Variable)					
2.	Immunization					
	PHC Areas					
	Assessment of BHW Performance	.12	.2	.04	3.7	.056
	Constant	.81				
	Non-PHC Areas					
	Accessibility of Public Health Personnel	.14	.04	.04	6.0	.01
	Constant	.7				
3.	Growth Monitoring					
	PHC Areas					
	Accessibility	.1	.03	.03	4.1	.04
	Constant	.58				
	Non-PHC Areas					
	Accessibility	.16	.05	.05	9.02	.003
	Constant	.4				
4.	Maternal Care					
	PHC Areas					
	Education of Respondent	.12	.06	.06	9.8	.002
	Constant	1.1				
	Non-PHC Areas					
	Adequacy of Service	.23	.03	.03	4.8	.03
	Education of Respondent	.14	.02	.05	3.8	.05
	Constant	1.03				
5.	Family Planning					
	PHC Areas					
	Education of Respondent	.1	.04	.04	6.3	.03
	Constant	1.4				
	Non-PHC Areas (No Significant Variable)					

Note: Other variables in the model: adequacy of public health service, satisfaction with public health service and participation in community activities.

Impact on Health

Morbidity

Two sources of information demonstrate the health standing of PHC and non-PHC areas in incidence of illnesses. The first is drawn from the statistical data on the users of health center facilities. The second is obtained from the survey of households.

Statistical Data

An assessment was made of the performance between two PHC barangays in terms of their morbidity rate before PHC was introduced and the data in 1993. Thus, between the two PHC areas, Barangay 181 has a better performance since morbidity has declined from 182.8 per 1000 before 1984, to 46 in 1993 (or a difference of 136.8). In the case of Barangay 64, there is a marked decline in performance with pre-PHC morbidity rate of 64.3 to 139.7 in 1993, or a difference of 75.4.

The aforementioned pattern for Barangay 64 demonstrates that it lags behind Barangay 46 (with 124.7). But it is better than Barangay 182 (with 188.7). However, the lack of data in the two non-PHC barangays in 1984 signifies the poor state of record keeping in these areas possibly because of the absence of PHC structures to monitor the local performance.

It is difficult, though, to depend on the information gathered by the Health Center on the four areas as an indicator of impact because non-users of facilities are not reflected in their statistical summaries.

Thus, an alternative measure to depict impact is the number of ill persons reported in the survey of households.

Survey of Households

Examining the performance of the four barangays, Barangay 182, the most depressed barangay, reflects the lowest percentage of ill household members (14%). This is followed by Barangay 181 (17%), then Barangay 64 (18.6%) and Barangay 46 (20%).

In the two PHC areas, the inclusion of the BHWs in the referral channel is a little more evident in Barangay 181 (15.2% citing this) than in Barangay 64 (with only 9.2%). However, the tendency of households to self-medicate is still high especially in treating fever which is symptomatic of other ailments (with close to 4% in both areas).

The influence of participation in the reduction of morbidity is depicted in the stepwise regression shown in Table 6. This finding signifies that participation in community activities could further enhance the awareness of measures to improve one's health condition. Furthermore, individuals involved in community activities become responsible for their needs and are able to improve their conditions faster than those who merely depend on the health workers. The impact of PHC is demonstrated here since participation is significantly higher in PHC areas. The impact of participation is significant across barangays. This finding is also borne out among households with ₱4,000 and below income. The second finding is important because the poor who demonstrate considerable involvement in community activities are able to improve their health condition inspite of their socioeconomic status. Thus, the argument that the poor are always less better off in their health condition can be corrected with a more aggressive posture in community activities.

Table 6. Factors Influencing Morbidity in a Stepwise Regression

Significant Factors	*Regression Coefficient*	*Partial R^2*	*Model R^2*	*t*	*Alpha*
	Across Barangays				
Total Participation in Community Activities	-.04	.01	.01	3.8	.05
Constant	.08				
	Households with ₱4,000 and Below Income				
Total Participation in Community Activities	-.13	.04	.04	6.75	.01
Constant	.1				

Note: Factors not in the equation are income level, educational attainment, BHW performance, public health delivery system performance, health practices and health environment condition.

Comparing Barangays with Households Earning ₱4,000 and Below

The general pattern for incidence of illness across the four barangays maintains the ranking in performance similar to the general average. Thus, Barangay 182 has 11.9%; Barangay 181, 15.6%; Barangay 64, 17.8%; and Barangay 46, 23.3%.

The influence of income level on the incidence of illness in this category of households is not borne out by the findings here. A lower incidence of illness across three barangays compared with the general average may be noted for two PHC areas and Barangay 182. It is possible that the influence of BHWs is even

more felt by those in the income bracket below ₱4,000 since BHWs target them more than those who have a higher financial standing. In the case of another control barangay (182), higher performance is also demonstrated.

Table 7. Morbidity Patterns (All Samples and Those With ₱4,000 and Below Monthly Income)

Barangays		*% of Ill to Total Household Members*	
		All Samples	*Households w/ ₱4,000 and below Monthly Income*
64	(PHC Area)	18.6	17.8
46	(Control Area)	20.0	23.3
181	(PHC Area)	17.0	15.6
182	(Control Area)	14.0	11.9

Factors Related to Performance in Households Earning ₱4,000 and Below

The two barangays under the San Pablo Health Center have a generally better performance than those under San Isidro.

The factors which could have affected this accomplishment for both Barangays 181 and 182 are the accessibility of the public health delivery system, the commitment of the staff to promotive and preventive health care and in the case of Barangay 181, the high performance level of BHWs.

As for the two barangays under the San Isidro Health Center, they both lag behind the barangays under San Pablo Health Center because of poor accessibility of the public health delivery personnel. Between Barangays 64 and 46, the percentage of ill persons is lower in the former because of the contribution of the BHWs in improving their health environment condition which has been spurred by high involvement in community activities. However, Barangay 64 has a poorer accessibility to public health facility and this could have led to the lower health practices over which BHWs do not have direct control in delivery. In Barangay 46, however, while it scores the lowest across the four barangays for health environment condition, performance for three health practices such as breastfeeding, immunization and maternal health, is higher than in Barangay 64.

See a summary of this comparison in Table 8.

Table 8. A Comparison of Health Practices and Health Environment Across Barangays with ₱4,000 and Below Monthly Income

Factors	*Barangays*			
	64	*181*	*46*	*182*
% of Ill Persons	17.8	15.6	23.3	11.9
Health Practices				
— Breastfeeding	2.8	2.8	2.5	2.4
— Immunization for Children	.9	.9	1.3	1.4
— Maternal Health	1.3	1.4	1.8	2.2
Total	5.0	5.1	5.6	6.0
HEC	32.9	28.3	26.02	27.3
No. of PHC Activities Engaged In	1.25	1.6		
Total Involvement in Community Activities	2.25	3.06	1.3	.36
Accessibility to Health Center (in meters)	200	50	100	50

Incidence of Death

Statistical Data

Based on the data from the health center, the difference in performance between Barangays 181 and 64 is once again demonstrated. A marked improvement in the mortality pattern from pre-PHC year to 1993 is shown by Barangay 181 as mortality of 6.5 per 1000 declined to 1.6 in 1993.

In the case of Barangay 64, its lower rate of performance is witnessed in the increase in mortality from 1.1 in pre-PHC year to a high of 4 in 1993. Thus, based on secondary data, the higher standing of Barangay 181 on this indicator is once again clearly depicted here.

The rate of improvement for the control sites is difficult to discern because of the absence of baseline data. But the information derived on the two areas in 1993 is consistent with the pattern for morbidity which shows Barangay 182 lagging behind in mortality with a rate of 7 per 1000 as against 2.8 for Barangay 46. Thus, it can be asked if the incidence of morbidity and mortality detected by the health centers could be an indication of high utilization rate rather than an accurate rendition of the health situation in the population.

Survey Data

The low turnout of deaths because of the small number of samples in the survey makes it difficult to use this as an indicator for impact.

Survey results yield the best performance for Barangay 46 with 4.2 per 1000. This is followed closely by the two PHC areas with a rate of 4.3. At the tailend is Barangay 182 which shows a rate of 5.3. Thus, the performance of the PHC areas falls in between the two non-PHC sites.

Conclusions

This research partly demonstrates the influence of PHC in improving the health environment condition of households, particularly among the socioeconomically deprived in PHC areas. This has also shown the influence of the BHWs' performance in improving the health practices of households specially with regard to immunization and breastfeeding. However, BHWs have not significantly demonstrated an impact on such practices as growth monitoring, selected practices for maternal care and family planning.

Between the two PHC areas, the edge of Barangay 181 over Barangay 64 is shown both in morbidity and mortality (secondary data and survey data). This is because of the high performance rate of BHWs in the area in their role in community mobilization. Another factor is the respondents' high assessment of the public health delivery system.

In the non-PHC areas, the factor influencing performance is the accessibility of the health service delivery system, specially for Barangay 182. Hence, this has also performed better than Barangay 46 in its HEC score and for selected practices (i.e., immunization for children, breastfeeding and maternal care).

Thus, PHC is not the sole factor for ensuring effective service delivery and impact. PHC initiatives, through the BHWs, supplement the services of public health personnel, but by themselves may not sufficiently ensure and improve health conditions. The availability and accessibility of basic facilities augur well for such practice as immunization.

Nevertheless, the potential of PHC to contribute to the improvement of health condition resulting from BHW initiatives and mobilization efforts merits its duplication and support in other areas.

Policy Agenda

(1) PHC Under Devolution

Considering the pace of implementation of PHC in the four target areas of Pasay City, much still has to be done to propagate PHC for widescale implementation. In the first place, the approach has not even filtered down to the control sites. Furthermore, in the experimental sites, the sustainability of the approach can be questioned since very limited time and attention have been poured by BHWs. Even the leadership's commitment of the health center to PHC can be raised. To what extent can a locality accomplish if this is not given priority attention. Health center personnel complain about many other intervening programs.

Thus, a clarification of the commitment of the City Health Office must also be made to be able to determine how much priority can be meaningfully extended by the health center personnel to mobilize the other areas for PHC. The kinds of resource support the health center can extend depend upon the resources that can be channelled by the City for this purpose.

(2) Sustaining the Commitment of the BHWs

The dwindling number of BHWs over time and the amount of time devoted by the active ones demonstrate the secondary attention given by BHWs to their tasks. While differences are noted in the commitment among the BHWs, with some devoting more attention to their work than the others, still, the limited number of hours given to it bespeaks of the poor priority given to this role.

The issue of sustaining the commitment of the BHWs is once again raised in this study. Some of the active BHWs have outrightly suggested the need to obtain an incentive for the role they are performing for the community. It is evident that the plan of the national government to formally address these concerns have not yet filtered down to BHWs (i.e., free medications, free hospitalization and laboratory examination, opportunities for setting up income generating projects).

Health center personnel can follow up the status of the recommendations of DOH to provide these incentives. However, local initiatives to support BHW activities should be forged to encourage more self-reliance instead of merely depending upon government for support. Successful experiences in community-based financing schemes to support BHWs can be demonstrated to provide inspiration to emerging PHC areas.

(3) Community Organizing Role and/or Health Support Role of BHWs

One of the key functions of the BHW, as it has been conceived, is the mobilization of the community for participation. However, the data here bear out the fact that it is a function that has not been fully achieved by the PHC areas in Pasay City. It appears that priority attention has been given by the health center personnel to consider BHWs as support system to facilitate the delivery of their target programs or projects rather than as facilitators for locally-initiated projects. Thus, mobilization function has not been fully translated in operational terms.

It is, therefore, imperative for local health offices to ascertain the extent to which it is able to fulfill community organizing function. It can be asked if they have the preparation to even impart the methodology to the BHWs.

One possible measure which could be resorted to is for the local health office to consider interfacing with other implementors with expertise in community organizing (such as the Social Welfare Officers formerly affiliated with the Department of Social Welfare and Development and community organizers from NGOs). BHWs can then devote more attention to the technical function they are currently performing (i.e., disseminating information, extending curative service, providing referrals, etc.). Nevertheless, BHWs need to interrelate with local community organizers to be able to determine what urgent needs have to be responded to which require their support.

This can be achieved with the support of the local chief executive whose commitment to community-based approach can be further motivated to ensure that this mode permeates other social development programs in the locality. To be able to do so would require some start-up funds for social mobilization of all implementors and at all levels of the local government unit.

(4) Political Support for Health

Since PHC is a key function that is devolved to local government units, it is important to consider the local chief executives as targets in the social mobilization efforts. In the first place, local chief executives are the ones who take the lead for PHC, such as the Primary Health Care Committee. It is the local chief executive's initiative that sets priorities for PHC, both in human and financial resources, such that its implementation becomes feasible. Start-up funds for mobilization become very crucial in the groundworking activities for the community.

(5) Convergence vs. Unilateral Efforts

The 1991 Local Government Code empowers local chief executives to work in a concerted way with different implementors on health and related concerns. It

is, therefore, crucial for a local executive to have the commitment and skills to work in a common direction together with the health and other social development implementors. In the urban areas, many resources from the private sector are available. Determining where they are and the extent to which they are willing to cooperate with government to extend services in areas which government is not able to serve are vital in the planning process.

(6) The Need to Improve Data Management

Relying on information gathered by the health facility may not be a sufficient basis for determining the health situation in the locality. The status of the health population is only discerned from the users of the health facility. This does not provide an accurate picture of the requirements and needs of the population. Hence, data management at the barangay level is important for rational planning and decisionmaking to take place. Thus, part and parcel of mobilization efforts for health management is the need to tap the community as active partners in collecting and gathering information about the health situation in their locality. Mobilizing the community to undertake projects is an activity that has not been given much attention by the community but has been demonstrated to work out like the Community Based Child Monitoring System implemented by the National Statistical Coordination Board. This can be advocated in these areas and can also be a focal point for local involvement in decisionmaking.

Furthermore, there should be convergence of efforts among LGUs to standardize their indicators to facilitate aggregation and cross comparisons.

(7) The Need for Process Documentation

PHC highlights the significance of process other than the implementation of programs and projects in health and related activities. Thus, it is important for local implementors to refine the methodologies and approaches in PHC through an account of the actual experiences of community organizers and community participation. It is, therefore, essential to draw the lessons learned from the living legacies of the efforts in PHC. This can be easily captured if there is documentation of the processes and the activities undertaken to put it in place.

Process documentation may be facilitated by making local government units tie up with local schools and research institutions to conduct process documentation. They may also assist in training public health personnel and the BHWs to implement this methodology. This can ensure that process is given as much attention as the outputs and impact of health and related activities instituted in PHC.

(8) Improving the Management of Community Activities

While PHC hinges on community activities, the issue of enhancing the management of local efforts is relevant. Deployment of BHWs can consider a set of standards to ensure equity and balance in the distribution of workload. The criteria can be formulated with the assistance of the BHWs themselves to make sure that relevant criteria are considered in the identification of assignments in the catchment area.

Provision of adequate logistical support to ensure that BHWs are able to fulfill their functions should be taken into consideration by public health personnel. There should be a clarification of the resources which can be provided them vis-a-vis the resource support expected to be regularly provided by the public health service delivery system or even by other cooperating institutions willing to support the activities in the locality.

(9) Peculiarities of Urban Primary Health Care

One of the difficulties in undertaking urban PHC is the fast turnover of the residents in the locality. This peculiarity makes it difficult to ensure the sustainability of the participatory strategy and to trace the impact of PHC. This then requires a careful screening of the participants who have stayed in the area over a period of time to determine how much improvement has taken place in the overall health situation and the varying degrees in exposure to PHC as a critical factor in determining PHC's net effect.

A developmental type of study is a key methodology to follow through the improvements of a group of persons who have been exposed to the approach for a period of time and how they fare in relation to others who have just been exposed to it recently in the area. This is definitely an expensive approach but can ensure that the reason for improvement is the involvement in PHC activities and the relevance of the activities to the locality.

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Appendix A

Scoring System for Health Environment Condition and Health Practices

A. Health Environment Condition (HEC)

Categories	*Score*
1. Drinking water	
Owned	2
Shared/Public	1
Piped water	3
Closed well	2
Open well	1
In the house	4
1-10 meters away	3
11-20 meters away	2
21+	1
2. Toilet Facilities	
Owned	2
Shared/Public	1
None	0
Flushed/water sealed	3
Closed pit/antipolo	2
Open pit/open space	1
In house	4
1-10 meters away	3
11-20 meters away	2
21-30 meters away	1
3. Disposal of Garbage	
Dumped in recognized site	4
Dumped in recognized site and burned	3
Burned	2
Burned and dumped in unrecognized site	1
Dumped in unrecognized site	0

Appendix A (continued)

4. Food Intake	
Number of meals taken in	
One	1
Two	2
Three	3
Food for Breakfast	
Cereal + protein + vegetable + fruit	4
Cereal + protein + vegetable/fruit	2
Cereal + vegetable or protein or fruit	3
One kind	1
5. General Assessment	
Presence of waste	
Highly visible	1
Visible	2
Not so Visible	3
Clean	4
Presence of Stagnant Water	
Yes	0
No	1
B. Health Practices	
1. Type of milk given or preferred to be given to babies	
Breastmilk	3
Breastmilk + Other milk	2
Other milk	1
2. Immunization of children (excluding those without)	
Complete	2
Partial	1
None	0

Appendix A (continued)

3. Growth monitoring of 4 years old and below children (excluding those without)	
0 to less than 1	
Monthly monitoring	No. of children X 2
Not as often	No. of children X 1
Not at all/Can't recall	0
1 to less than 5	
Four times a year or more	No. of children X 2
Less than four times per year	No. of children X 1
Not at all/Can't recall	0
4. Pregnant women (excluding those with inapplicable experiences)	
Currently pregnant	
Consulted doctor	Actual no.
Did not consult	0
Deliveries in the last 3 years	
Consulted doctor	Actual no.
Did not consult	0
Immunized more than 2X	Actual no. X 3
Immunized 2X	Actual no. X 2
Immunized once	Actual no. X 1
Not at all/Can't recall	0
5. Family Planning Practices (45 and below)	
Practicing	2
Ever practiced	1
Single/divorced/separated who likes to practice	1
Do not/will not practice	0
Rhythm/withdrawal/abstinence	1
Pills/IUD	2
Ligation/Vasectomy	3