THE UNIVERSITY OF ZAMBIA
SCHOOL OF MEDICINE
DEPARTMENT OF POST BASIC NURSING

A STUDY OF FACTORS CONTRIBUTING TO LOW ATTENDANCE OF CHILDREN AGED BETWEEN 1-5 YEARS AT GROWTH-MONITORING PROGRAMMES. KITWE. ZAMBIA.

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DECLARATION

I here by declare that the work presented in this study for the degree of Bachelor of Science in Nursing has not been presented either wholly or in part for any other degree and is not being currently submitted for any other degree.

Signed _____

Approved by _____

Supervising Lecturer

STATEMENT

I hereby certify that this study is entirely the result of my own independent investigation. The various sources to which I am indebted are clearly indicated in the text and in the references.

Signed _____

Candidate.

DEDICATION

Lovingly dedicated to my husband, Kanyanta W. Chishimba whose love, encouragement and prayers inspired me and to our daughters Chisha and Chitundu, our son Kanyanta W.(Jr) who never stopped wondering why mummy had to be away from sweet home for so long! To my beloved parents!

GOD HAS DONE GREAT THINGS!

ABSTRACT.

A study of factors contributing to low attendance at growth monitoring programmes among children aged between 1-5 years was done in Kitwe. 2 Health Centres were randomly selected for the study. At the Health Centres a sample of 70 mothers with children aged between 1-5 years were systematically selected. The total sample was 85 including 15 health workers. Focus group discussion was also done to complement the study findings.

The study revealed that there are various factors contributing to low attendance. It has been observed that the phenomena is related to mothers education and social status. Among the most common reasons given for low attendance were laziness, which was interpreted as inability to percieve the value and benefits of G.M.P. Another factor was difficulty in walking to the health centre with more than 1 underfive.

Other important factors included long waiting times at clinics, long ques created by over crowding, shortage of scales and staff shortage.

Much of the information obtained makes this study important to the health personnel and programme planners in particular. It is therefore hoped that the information will be useful to all those concerned.

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LIST OF TABLES

ABBREVIATIONS.

1. Primary Health Care - P.H.C
2. Growth Monitoring Programme - G.M.P
3. Maternal Child Health - M.C.H.
4. World Health Organization - W.H.O.
5. Ministry of Health - M.O.H.
6. National Nutrition Surveillance Programme - NSSP

CHAPTER 1

INTRODUCTION

BACKGROUND.

Following the implementation of the Primary Health Care approach (PHC) in 1981, growth monitoring has been provided as part of the maternal child health services (MCH), in health centres and hospital outpatient clinics. This activity is one of the most crucial for improving and sustaining the health, development and nutrition of children.[1]

Growth monitoring enables health workers to meet various objectives. Apart from risk screening and assessment, the service provides a forum for nutrition education and an opportunity for intergration of other PHC interventions. Data from growth monitoring programmes ~~and~~ assist Programme Managers with ongoing management decisions, Planning and Evaluation. Information on growth of children helps to feed effective advocacy in social, political and economic circles, for reasons of advocating for more funding for research or programmes favoured by the advocates.[2]

The World Health Organization (WHO) strategy which this country follows is the weighing of children at monthly entervals from birth up to 5 years. Weight curves are plotted by health workers on growth charts which are kept by mothers.[1]

The anthropometric measurements used are weight for age and mid arm circumfrence for older children. These measurements serve indicators for nutrition surveillance and help to detect growth faltering at an early stage.[3] The weight curve is the most important factor which should be used for early detection and prevention of malnutrition.[4]

As an indicator of the general standard of a country's public health and nutrition, the growth of it's children is probably as useful as it's infant mortality rate.[5]

4.2 Statement of the Problem

It is generally agreed that a childs growth pattern is a very sensitive indicator of his health and nutrition status, and that a change in growth rate often precedes any other signs of ill health.[6]

Children under the age of five years are vunereble to diseases which are preventable and can be detected at growth monitoring programme.[7] In this country for example it has been documented that, children's weight start to faulter as early as four (4) months extending to 18 months, this points to the need for early and continous monitoring.

Systematic monitoring of growth is particularly important in children because it helps to reveal the less obvious cases of malnutrition.[7] However available district data in Lusaka Province indicates that, the urban health centre growth monitoring programmes, are mainly reaching the under 1 year age group because of immunizations. [8]

According to information from the Nutrition Unit in the Ministry of Health, child attendance for growth monitoring programmes diminishes with age; figure collected from several districts including Kitwe revealed that coverage of children under 1 year was 60%, children between 1-2 years was 25% and 15% accounted for children between 2-5 years.

In another report the National Nutrition Surveillance Programme (NNSP) states that attendance at growth monitoring programmes diminishes as children grow older, and that this drop off in attendance often coincides with the peak period of nutrition related problems.[9] It has for example been observed and documented that the highest cause of mortality among children aged between 1-14 years is malnutrition.[8]

One wonders therefore, why mothers stop attending growth monitoring programmes regularly, at the stage when weight faltering is most likely to occur; Do they have the necessary information regarding the importance of this service? If they

do, what constrains them from utilising the service to the full? The researcher would like to establish the relevant factors contributing to this trend in Kitwe.

In the a report on the 'state of the worlds children' UNICEF recommended that growth monitoring should be used to help mothers, families and communities to understand the growth of children in order to undertake necessary actions to maintain and improve this growth.[4]

If growth monitoring has to be effective mothers must be made to percieve growth as a tangible, visible attribute and feel the need and demand for growth in their children.[9]

1.3 Literature Review

Growth monitoring is an important tool of nutritional assessment. It can be defined as an operational strategy of enabling mothers to visualize growth or lack of it, and to recieve specific, relevant and practical guidance in ways in which she, her family and community can act to assure health and continued regular growth in her child.[2]

Growth monitoring implies a regular and sequential measurement of growth recognising it to be the result of overall health nutrition, environment, social, psyctric and developmental factors in the child, it is based on a

strategy aimed at behavioral change and adoption of improved self help actions within the community to promote optimal health.[2]

The Zambian Government recognised the need for a systematic surveillance programme in order to prevent malnutrition and other health problems. Between 1979 and 1981 the Ministry of Health with the assistance of UNICEF conducted a study to identify appropriate indicators. weight for age and mid arm circumfrence were identified as suitable, and a W.H.O approved growth chart was adopted.[8]

The chart has two refrence lines, the upper line is the WHO 50th percentile for boys and the lower line is WHO 3rd percentile for girls: This is equivalent to a approximately 80% of the WHO standard weight for age which is used as a criteria for under weight, but not necesserily for malnutrition. However for the individual children the direction of the curve is the most important factor which should be used for early detection and prevention of malnutrition.[8]

For the purpose of an orderly presentation of literature review, it will be discussed under the following subheadings:

a. Importance of growth monitoring

b. Effectiveness of growth monitoring

c. Factors affecting attendance at growth monitoring programmes;

i) Health provider factors

ii) Health service factors

iii) Client factors

D) Possible solutions

Importance of Growth Monitoring

Weight measurement is by far the most common and best known anthropometric method. It is the most valuable for basic health services, because it can provide the greatest amount of information on the child's health status.[10]

It is reasoned that short falls of growth for age in african populations constitute significant health hazards; And that failure to achieve maximum potential growth indicates inferior nutritional status, with associated increased risks to health and life.[10]

In a report by UNICEF, it is contended that growth monitoring is a possible break through against child malnutrition. The WHO/UNICEF joint consultation also recomended that the records of weight curves be the basis for the diagnosis of child malnutrition.[3]

Weighing children in developing countries has a high cost benefit value, because it could be used to help the mothers understand growth in their children, and take necessary measures to maintain and improve it.[11]

The basic elements of the child's check up are constituted by weighing and measuring of the child from birth at regular intervals, if growth slows down or stops prematurely, causes may be sought at an early stage and remedies applied.[12]

Apart from the obvious screening function of growth monitoring, it is also a communication strategy for making health and nutrition education more individualised, more convincing and more effective. It is intended to assist in nutrition education by making growth faltering visible to mothers at an early stage. It also provides a context within which health workers and mothers can discuss the importance of growth, possible reasons for growth faltering, and ways in which the mother and her house hold can improve and maintain good growth.[2]

The service also serves as an integral strategy for a variety of child survival and primary health care interventions. It can be used to mobilise the community for community based programmes.

The simple growth monitoring indicators if easily understood and presented in a convincing fashion to reveal the existence of an urgent problem, can be used to secure more funding for research or for programmes favoured by the advocates at national or international levels[2] Growth monitoring provides data, which when collected and appropriately transmitted in a timely fashion can assist programme managers in decision making and evaluation.[2]

Effectiveness of Growth Monitoring

The intensified promotion of growth monitoring on a global scale, over the last decade, has stimulated a considerable controversy concerning among other things it's effectiveness.[2]

Despite the theoretical attractions of growth monitoring several recent reviews have concluded that, there is very little empirical demonstration of it's effectiveness, under the conditions typically found in large clinic based programmes. Though there are anecdotal reports of successes, usually on small scale, these are poorly documented; under the actual conditions of poorly staffed, poorly trained and poorly supervised health clinics. It has proven difficult to translate growth monitoring into successful large scale programmes.[2]

According to the WHO/UNICEF joint consultation held in Brazaville in 1990, clinic based growth monitoring was not effective in this region of Africa. Coverage of children beyond 1 year was often inadequate in urban areas despite the proximity to the health Centres.[3]

In Zambia, though growth monitoringis one of the primary purposes of the children's clinic, available national data reveals that, coverage of the underfives at clinic based growth monitoring programmes is generally low and biased in favour of the younger children who were generally brought to receive immunizations.[2]

FACTORS AFFECTING ATTENDANCE AT GROWTH MONITORING PROGRAMES

Health Provider Factors

Studies have shown that poor knowledge and inadequate training of health providers affected the effectiveness of growth monitoring.[13]

Children's health cards are valuable for monitoring individual children, if they are used by workers trained in both their use and interpretation to mothers; most of which was felt to be lacking at present.[10]

In Zambia the weighing is commonly done by untrained staff instead of family health nurses or health assistants.[8] Some health workers who are supposed to interprete the information to mothers failed to understand the use of a growth chart, which is a vital tool for growth monitoring.[8]

The growth monitoring activity does not only embrace weighing and recording but also interpretation and understanding by the mother of the growth in her child.[9] When the weight curve is explained to parents they understand the need for the surveillance of growth. Many parents believe that this surveillanve is no longer necessary after the age of 2 years.[12]

It has been noted that measurement of weight has become a routine for nurses who often view it as a simple ritual. This attitude is generally a result of the incomprehension of the many possible uses of growth monitoring such as education of parents on child nutrition and general health.[12]

However contrally to these observations a study on supervision of early childhood development (1974) Nigeria, revealed that health workers visited during the study demonstrated a remarkable level of competence in weighing, plotting and interpretation of weight and advice to mothers.[10]

It has been said that, while weight is an excellent indicator of the infants state of health and nutrition, it's supervision is the basic element of preventive paediatrics.[10]

Health Care Service System Factors

One of the important objectives of any service delivery system is to achieve the widest possible coverage.[13]

In the Zambian situation however, the available national data indicates that the urban health centres in particular, are reaching mainly the under 1 year age group at growth monitoring programs.[8]

In trying to understand the deficiencies of the health care services in West Africa, 3 factors were analysed.

(1) Distance to health centre: It is clear that people who live near the clinic come more readily for consultation than those who live far away.

(2) Consumers dissatisfaction with clinic echoes; This means that with persistent shortage of supplies, people would rather stay at home than travel long distances for nothing.

(3) Clinic waiting time: This is often very long; In recent years the work load of an African woman and how time is pent have interested a number of researchers for example the day of a woman in Mali started at 04.30 hours and ended at 21.00 hrs. How can such a woman find time to spend a morning waiting at the clinic to have her child seen.[14]

In a survey involving 30 randomly selected village clusters in Buhera, Zimbabwe (1985), the investigator who sought to find out the reasons for incomplete immunization among children discovered that the service factors include;

1. distance to health centre
2. Unknown place and time of immunization
3. shortage of vaccines at health centre.[15]

Client factors affecting attendance at growth monitoring sessions

Regular clinic attendance is a major ingredient in the maintainance and effectiveness of growth monitoring. This is however enhanced by the mothers ability to interpret and understand the growth in her child. The knowledge arouses a desire in the mother, for a regular growth of her child and promotion of an appropriate spectrum of pragmatic and culturally acceptable actions designed and proved to result in growth.[9]

A knowledgeable mother percieves growth as a tangible, visible attribute and feels the need and demand for growth. She is able to detect earliest growth faltering and reinforces effective behaviour resulting in growth. Such a mother illustrates the adverse effects of various negative events or circumstances on growth, for example infection and maternal absence.[9]

A cross sectional study was undertaken of the knowledge of the weight for age growth curves of young children, and maternal and child hood immunisations of mothers attending children's clinics in Harare in 1986. Among the 418 mothers who were interviewed (80%) knew that the child health card was used to record immunisations and monitor child growth; However interpretation of weight curves was unsatisfactory, as only 35% correctly interpreted the weight curves.[11]

A smiler study done in Nigeria in 1990 proved that m mothers had problems in understanding the use of the growth chart. Problems have been reported of parents failing to understand the use of the growth chart and mother failing to come to clinics, if the card is seen as merely a tool, which is un related to the perception of mothers.[9]

In the Buhera study some of the client factors for incomplete child immunisation were; (i) mother too busy (ii) mother not motivated, (iii) child sick on day of immunization, (iv) child was well therefore, no need seen and religious beliefs.[15]

In another survey of immunization status of children at Al Qassin Hospital in United Emirates. Some of the reasons given for not finishing immunization were;

- lack of time
- child was unwell
- not believing in benefits.[16]

In Zambia a study of the utilization of health services by Sichinga (1984) indicated that clients under utilized health services due to lack of knowledge and laziness.[17]

Possible Solutions

In view of the importance of growth monitoring, maximum efforts should be made to generate an understanding among mothers of the velocity of growth concept, and the benefits of growth monitoring.[11]

In some countries where distance to the health centre has been identified as a hinderance, community weighing programmes have been instituted to ensure good coverage of the underfives. In indonesia trained Community Volunteers

are utilised and data is reported through the community health centres.[2]

Community based growth monitoring programmes have been developed on a region-wide scale in Kenya, Tanzania and Zimbabwe to facilitate coverage of villages beyond the one in which a health facility is located.[3]

It has been noted that the requirements for making growth monitoring successful for the purpose of nutrition education are more likely to be in well organized community based programmes than in clinic settings. These requirements are; (1) adequate knowledge and skills on the part of health workers to conduct growth monitoring activities properly; (2) That health workers have sufficient time and communication skills to transmit information to mothers; (3) mothers understand the messages and can translate them into action can translate them into action and finaly(4)that mothers and health workers can work on feasible solutions tailoured to individual circumstances.

1.4 Operational definitions

1. Growth Monitoring; An activity involving weighing of children, plotting of their weight curves on children's cards, screening of children, giving relevant health education and counselling on child care and nutrition

2. Mother: A women with child or children aged between 1 - 5 years.

3. Older children: Children aged above 1 year and below 5 years.

4. Knowledge of mothers: The mother will be said to be knowledgeable if she knows that;

1. growth monitoring helps to;

i) assess child growth

ii) identify other illness and problems that child may have

and iii) provides an opportunity to learn on child care and nutrition.

2. The interpretation of a weight curve in terms of 'gaining, static and loosing weight'.

3. The immediate causes of weight loss in children such as sickness especially diarrhoea, inability to eat and inadequate food intake.

5. Knowledge of health workers:

The health worker will be said to be knowledge able when she knows;

1. That growth monitoring involves :

i. weighing children

ii. Screening

iii. Giving relevant health education

iv. Counselling mothers

2. appropriate counselling in relation with weight loss, weight gain and static weight

3. The causes of weitht loss in children

4. The age group at risk of weight faltering.

6. Defalters: refer to mothers who fail to bring their child/ children for growth monitoring regularly.

7. Health provider: Any health worker involved in growth monitoring activities

8. Health worker: health provider

CHAPTER 2

OBJECTIVES

The general objective of the study was; To determine the factors contributing to low attendence of children between 1 - 5 years at growth monitoring programmes.

Specific objectives.

2.1 To determine the level of knowledge of the mothers on importance of growth monitoring.

2.2 To determine the relationship between low attendance and

i) mothers characteristics

ii) number of underfives in family

iii) Distance to health centre

2.3 To establish mothers reasons for low attendance.

2.4 To determine the health workers level of knowledge on growth monitoring.

2.5 To find out whether any counselling of mothers is done at growth monitoring programmes.

2.6 To establish whether defaulter at growth monitoring programmes are followed up

2.7. To explore mothers' opinions on what can be done to improve growth monitoring services.

CHAPTER 3

METHODOLOGY.

3.1 Research design

The purpose of the study was to identify the contributing factors to low attendance of children aged between 1 - 5 years at G.M.P. A descriptive research design was chosen, this involved systematic collection and presentation of data in an effort to clearly show the cause effect relationship between dependent variable and various independent variables.

A descriptive study is one which is used to answer a question, satisfy curiosity, solve a problem or establish a cause effect relation-ship.[19] It involves the systematic collection and presentation of data to give a clear picture of a particular phenomena.[19]

The study was also qualitative, because it sought to identify, and explore the factors contributing to low attendance of the older children at G.M.P. It was further concerned with finding out the perception and opinions of mothers and health workers of the concept of growth monitoring.

To a small extent the study was quantitative in that it looked at the numbers of mothers and health workers who had knowledge with respect to growth monitoring.

3.2 Variables

The dependent variable for the study was 'low attendance of children aged between 1 - 5 years at growth monitoring programmes. Several independent variables were identified. Some of these were measurable but others were not indicators and and cut off points were prepared for the latter.

The details of the variables and their cut off points are presented in Annexes 8, 9.

3.3 Research setting

The study was conducted at 2 health centres in Kitwe, on the copperbelt province. Kitwe has a population of 348,571, ou out of which 13,908 (3.99%) are children under the age of 1 year and 70,620(20.2<%) are children below the age of 5 years.[20]

The district has one Government Central Hospitals and 2 other smaller private hospitals belonging to Zambia Consolidated Copper Mines. In addition the district has a total of 2< health centres out of which only 12 offer Maternal Child Health Services.[21]

The health centres offering Maternal Child Health Services are widely distributed in the city to cater for 1< community townships and an increasing number of shanty compounds that continue to mushroom in the periphery of the townships.

The health centres provide complehensive care (excluding hospital admission requiring care) The maternal child health care are integrated with primary health care. These services are staffed by public health nurses, Registered nurses, Midwives enrolled nurses and family health nurses and nutrition demonstrators.

The researcher chose to conduct the study in Kitwe because she was familiar with the place.

3.4 Sample selection and Approach

Study Population

The study population were mothers and health workers from Kitwe District Health Centres. The study units were mothers with children aged between 1 - 5 years and health workers who were involved with growth monitoring services.

Sample size

Sample I: Included 70 mothers with children aged between 1 - 5 years from 2 health centres in Kitwe. Sample 2: Included 15 health workers who were involved in growth monitoring activities from the 2 health centres.
The total sample was therefore 85.

Sampling method

Simple random sampling was used to select the 2 health centres at which the study was done. A list of the 12 health centres which offer Maternal Child Health Services was complied. Each health centre was given a number. The numbers written on small pieces of paper were put in a box; using a lottery method 2 health centres were selected for the study.

At the health centres various sampling methods were used depending on the study units.

Sample I:

A sample of 70 mothers was obtained by syatematically sampling 35 mothers from each of the health centres selected. The researcher reported at the clinis well before the growth monitoring sessions were started, and beginning with the mother who first arrived at the clinic with a child above 12 months, every second mother was picked and interviewed until a total of 35 mothers were interviewed from each health centre, over a period of six days.

Systematic random sampling was used because it is a scientific method of sampling in which each element in the population is given a non-zero probability of being included in the sample.

Sample II

To obtain the sample of health workers, a convenience sampling method was used because the elements were few in number, so all those who were available were included in the sample.

Data Collection Technique

To facilitate data collection an interview schedule for mothers and a Questionare for health workers were used. A focus group discussion was also done at another health centre to complement the findings.

Interview schedule

An interview schedule was designed which sought to provide the desired information and which included test cards showing varying growth curves.

The questions were developed in English but the interviews were translated in Bemba. Care was taken to ensure that the meaning were the same and that mothers were interviwed in the most appropriate language.

An interview schedule was chosen as appropriate for the study because of the following reasons:

1. The study elements included mothers who were illetrate.

2. The amount of incompleteness were minimised because the researcher ensured that all questions were answered.

3. The instrument allowed for probing where answers were not clearly given.

4. A larger sample was yielded because the response rate was as high as the researcher could manage to interview.

The disadvantage experienced by the researcher were;

1. The possibility of bias due to lack of annonymity on the part of the respondents.

2. A lot of expenses were incurred in travelling, between Lusaka and Kitwe and between the health centres and the researchers residence.

Mothers were interviewed individually in separate rooms provided by charge nurses at both health centres. To provide a conducive atmosphere for the mothers the following steps were taken:

1. Self introduction was done and the significance of the study was briefly explained to the mother before starting the interview.

2. To avoid suspicion, an explanation was made as to how the respondent was chosen.

3. Questions were asked in a friendly and informal manner to make the mother feel confortable.

4. The researcher made a deliberate effort to adapt to the situation and ensured a relaxed atmosphere.

5. The researcher dressed appropriately in Mufti and did her best to communicate at the same level with her clients.

The children's cards were asked from the mothers to prevent them from referring to their cards during the interview. The respondents were interviewed just prior to their leaving the health centre, this was done to prevent mothers telling their friends what sort of questions were being asked, which could have resulted in mothers discussing and having pre-concieved ideas.

Though the interviews were conducted away from the main working and waiting areas, some mothers may have become aware of the nature and purpose of the interviews and prepared themselves. This may have introduced some bias which however is likely to be small. Clinic attenders other than mothers. such as nanies, relatives or husbands were excluded from the survey.

Questionare

Questionare with both closed and open ended questions, was used to elicit information from the health workers since they were all literate. This saved time for the researcher to conduct interviews with mothers since she had no assistants.

Despite the researcher personally giving out the questionares and following up the respondents, the problem of some non-responses was still experienced since some respondants were off duty or sick off and could not be reached to retrieve the questionares. Out of the 20 questionares distributed, 15 were completed.

Focus group discussion

Focus group discussion was done with 10 mothers from another clinic. These were not part of the sample but the results were used to complement study findings.

3.5 Data collection

Data was collected in six (6) days,,from 27th December 1991 to 2nd January 1992. Permission was sought from the dis district medical officer of health under whom the 2 health centres which were sampled fell. The letters requesting for and granting permission are appended.

3.5(i) Interviews with mothers

Interviews were conducted single handedly by the researcher. 3 days were spent at each of the health centres.

Both health centres; Kaunda Square and Chimwemwe conduct all day childrens clinics including growth monitoring Activities are scheduled between 08-12 hrs and 14-16 hours every working day.

The researcher reported at the clinics well before the 6.mp began in order to catch the first mother. An average of 12 mothers were interviewed per day.

3.5(ii) Questionare

Self administered Questionares were distributed to the health workers who were sampled. This was done a day before the actual field work was started to give ample time for completion of the Questionares.

3.5(iii) Focus group discussion

Focus group discussion was done on the last day of the field work. This involved 10 mothers who were conveniently selected at Buch Clinic. Recording during the discussion was done with the assistance of a student nurse from Kitwe School of Nursing.

3.6 Ethical Considerations

The study did not involve any serious ethical considerations. However the purpose of the interview was explained to the respondents and participation was voluntary.

3.7 Field Test

The datatcollection tools were pretested on the 30th November and 2nd December 1991. The purpose was to assess the ability of the tools to yield valid information.

The pretest was done at U.T.H. Children's Clinic in A block. 6 mothers were interviewed and 3 health workers were given Questioneres to complete. Following the pretest the following changes were made;

1. Some questions were either altered or omitted in both instruments because they were not in logical sequence and failed to elicit the expected reapose.
2. Some closed ended questions in the Questionere were changed into open ended questions because there was need to gather additional data.

3.8 Limitations of the Study

1. Only 2 health centres were sampled and a total sample of 85 was drawn. The researcher feels that a larger sample would have been more representative; but in view of the fact that the study was an accademic exercise, she was confined to a small study in order to operate within the available time and finances.
2. In view of the small size of the sample it will be difficult to draw conclusive statistical inferences from the study.

CHAPTER 4

PRESENTATION AND ANALYSIS OF FINDINGS.

INTRODUCTION

The results presented in this chapter were obtained from 85 subjects; 70 mothers with children aged between 1 - 5 years and health workers who were involved in growth monitoring activities at Kaunda Square and Chimwemwe health centres in Kitwe.

1. Data analysis

All data were analysed manually with the aid of a pocket calculator. Raw data were first edited for completeness and accuracy and were then tallied on work sheets. Most of the responses were categorised especially those from open ended questions and suitable terms were used to bring all such related data together. The tallied data were assigned numerical numbers. The statistical data were put in table form in an explanatory manner with all percentages rounded to whole numbers.

2. Presentation of Findings

The findings are presented in tabular form. The variables have been cross-tabulated to elicite the relationships among variables and to enable the researcher to draw meaningful inferences from the sample.

The results of the focus group discussion are summarized in Annex (2)

The finding from the interviews of the mothers are presented in section A. while those from the health workers are in section B.

SECTION A.

Characteristics of the Sample

Based on a sample of 70 mothers 60(86%) were unemployed house wives and 10 (14%) were employed, 38 (54%) had attained Primary Education while 30 (43%) had Secondary School Education and 2 (3%) had never been to school at all.

The majority of the respondents 30 (43%) were from medium density area and most of the mothers had 3 children or less 45 (64%). (Table 1)

4.1. Low attendance and mothers characteristics. Among the total sample 42 (60%) had low attendance rate. 29 (41%) of the low attendants had primary level of edudation. 38 (54%) were not employed 17 (24%) were from medium density area, and 24 (34%) had low parity.

TABLE 1. CHARACTARISTICS OF MOTHER AND THEIR RATE OF ATTENDANCE

CHARACTERISTICS OF MOTHERS	RATE OF ATTENDANCE LOW = 42	HIGH = 28	TOTAL
EDUCATION			
No schooling	2 (3%)	0 (0%)	2 (3%)
PPrimary	29 (41%)	9 (13%)	38 (54%)
Secondary	11 (16%)	19 (27%)	30 (43%)
	42 (60%)	28 (40%)	70 (100%)
OCCUPATIONAL STATUS			
Employed	4 (6%)	6 (9%)	10 (14%)
Not employed	38 (54%)	22 (31%)	60 (86%)
	42 (60%)	28 (40%)	70 (100%)
RESIDENCE			
Low density	11 (16%)	11 (16%)	22 (31%)
Medium density	17 (24%)	13 (18%)	30 (43%)
High density	14 (20%)	4 (6%)	18 (26%)
	42 (60%)	28 (40%)	70 (100%)

TABLE 2: Mothers rate of attendance in relation to parity and number of underfives in family.

Mothers Rate of Attendance	MOTHERS PARITY LOW 45		HIGH 25		TOTAL
	No. of underfives		No. of underfives		
	1	≥ 2	1	≥ 2	
Low	7 (10%)	17 (24%)	3 (4%)	15 (21%)	42
High	7 (10%)	14 (20%)	3 (4%)	4 (6%)	28
Total	14 (20%)	31 (44%)	6 (9%)	19 (27%)	70

Out of the 45 (64%) mothers with low parity 31 (44%) had two or more underfives in the family and 17 (24%) of these mothers had low attendance rate and 15 (21%) out of 19 (27%) high parity mothers with more than 2 underfives in family had low attendance rate.

TABLE 3. Rate of attendance in relation with distance to health centre.

Mothers

Attendance Rate	DISTANCE TO HEALTH CENTRE Near	Far	Total
Low	26 (37%)	16 (23%)	42
High	19 (27%)	9 (13%)	28
Total	45 (64%)	25 (36%)	70 (100%)

Among the 42 (60%) mother with low attendance 26 (37%) lived near the health centre, and 19(37%) out of 28 (40%) with high attendance rate also lived near the health centre

TABLE 4. Reasons given by mothers for the low attendance at G.M

Reason for Low Attendance	No of Respondents	Percentage
1. Laziness	14	33.3%
2. Difficulty carrying more than one one underfive child	9	21.4%
3. Pregnant and tired mother	4	9.5%
4. No need seen after finishing immunizations	3	7.1%
5. Health centre too far	3	7.1%
6. Absence of mother - sick, attending funeral, away on duty	3	7.1%
7. Child taken to grand parents	2	4.7%
8. Child sick and likely to lose weight	1	2.3%
9. No reasons given	3	7.1
TOTAL	42	100%

44. The commonest reasons given by mothers for low attendance were laziness 14 (33%) Difficulty in carrying more than one under-five to health centre 9 (21%)

43. Knowledge of the mothers of the importance of G.M.P.

Most of the mothers 58(83%) had high knowledge level, 12(17%) had average knowledge and none of the mothers had low knowledge as far as the importance of G.M.P was concerned.

TABLE 5: Shows the relationship between mothers level of knowledge of importance of G.M.P and their level of education.

MOTHERS EDUCATIONAL LEVEL	MOTHERS LEVEL OF KNOWLEDGE			TOTAL
	Low	Average	High	
No schooling	0	1 (1.4%)	1 (.4%)	2 (3%)
Secondary	0	6 (9%)	24 (34%)	30 (43%)
Primary	0	5 (7%)	33 (47%)	54½)
TOTAL	0	12 (17%)	58 (88%)	70 (100%

TABLE 6: Mothers level of knowledge of the importance of growth monitoring and their ability to interpret growth monitoring information. (weight curve)

Morther's Level of Knowledge	Mothers ability to interpret weight curve		Total
	Able	Not Able	
Low	-	-	-
Average	0 (0%)	12 (17%)	12 (17%)
High	19 (27%)	39 (56%)	58(83%)
Total	19 (27%)	51 (73%)	70 (100%)

Out of the 58 (83%) mothers who had high level of knowledge only 19 (27%) were able to interpret the weight curves on a test card that was shown to the mothers, all the mothers with average knowledge were not able to interpret the weight curve.

TABLE 7: Mothers level of knowledge of the importance of Growth Monitoring and their rate of attendence.

Mothers level of Knowledge	Mothers attendence rate		Total
	Low	High	
Lew	0	0	0
Average	8 (11%)	4 (6%)	12(17%)
High	34 (49%)	24 (34%)	58(83%)
Total	42 (60%)	28 (40%)	70(100%)

Out of 58 (83%) mother with high level of knowledge 3 34 (49%) had low attendance rate and 24 (34%) high attendance rate, while among the 12(17%) with average knowledge 8 (11%) had low attendence rate.

SECTION B.

4.4 Knowledge of health workers.

TABLE 8: Health workers knowledge on growth monitoring in relation to professional status.

	Knowledge on Growth Monitoring			
Professional Status	Low	Average	High	Total
Enrolled Midwives	1	0	5	6(40%)
Family Health Nurse	0	0	3	3(20%)
Registered Midwife	0	2	3	5(33%)
Nutrition Demonstra-	0	0	1	1 (7%)
Total	1 (7%)	2 (13%)	12(80%)	15(100%)

The majority of health workers were EM 6(40%), RM(33%). 12 (80%) of the health workers had high knowledge on growth monitoritn. 2 (13%) had average knowledge and 1 had low knowledge.

TABLE 9: Health workers Knowledge on G.M. and of experience with G.M. activities.

Experience with G.M. Activities	Health Workers Level of Knowledge			
	Low	Average	High	Total
1 year	0	1	0	1(6.6%)
1 - 5 years	1	1	5	7(47%)
5 years	0	0	7	7(47%)
TOTAL	1 (6.6%)	2 (13%)	12(80%)	15

Health workers who had more than 5 years experience with G.M activities had high level of knowledge 7 (47%).

4.5 Determining if counselling is done at G.M. Programmes.

TABLE 10: Time health workers spent on Counselling individual mothers in relation to time sufficiency.

Time spent on counselling	Sufficiency of Time to health worker			
	N/A	Sufficient	Insufficient	Total
5 minutes	0	1 (7%)	8 (53%)	9(6)%)
5 minutes	0	0	3 (20%)	3(20%)
Counselling not done	3(20%	0	0	3(20%)
Total	3(20%)	1 (7%)	11 (73%)	15(100%)

12 (80%) out of 15 health workers gave individual counselling to mothers during growth monitoring sessions. 9 (60%) of these took less than 5 minutes while 3 (20%) took more than 5 minutes, both groups of health workers agreed that the time they spent with individual mothers was not sufficient to enable them give proper instructions and education.

3 (20%) of the health workers did not give any counselling because there was no time.

4.6 Follow up of defaulters at growth monitoring programes.

7 out of the 15 health workers made an average of a home visits per month, 8 of the health workers did not conduct any home visits due to pressure of work.

The mothers whom health workers gave priority during home visits were defaulters and mothers with malnourished children. However among the 42 (60%) of the mothers with low attendance rate none had ever been visited by any health worker

CHAPTER 5

5.0 DISCUSSION OF FINDINGS AND IMPLICATIONS FOR THE HEALTH SYSTEM.

5.1 Discussion of findings

The findings of the study are based on analysis of responses from mothers and health workers from 2 health centres in Kitwe. The purpose of the study was to identify f factors that contribute to low attendance of children aged between 1 - 5 years at G.M.P The total sample was 85, comprising 70 mothers and 15 health workers.

The majority of the mothers 42 (60%) had low attendance rate (Table 1). In relation to their characteristics, the study shows that, low attendance was more among mothers with primary education 29 (41%) and those who had not been to school. The majority of mothers with secondary education had hi high attendance rate 19 (27%). It appears from the study result that mothers with higher education level utilise G.M.P service more than the less educated. This could probably be attributed to the fact that, mothers with higher education level are likely to have extra information on health services, apart from what they get from the health workers, through other cues such as, the media campaigns, news papers and magazine articles.

The study also shows that attendance was low among the unemployed mothers. 38 (54%) One would think that mothers who are i are not in circular employement would be able to manipulate their time effectively to enable them attend G.M.P regularly. One would like to believe the findings of researchers in Mali that the work load of an African Woman has so much increased in recent years that, women cannot afford to spend a morning waiting to have their children seen at clinics.[14] This is even more so for the Zambian mother who has been driven to all sorts of income generating ventures in order to supplement the husbands income, in the wake of the harsh economic period the country is going through.

Further findings revealed that low attendance was more among mothers from medium density 17 (24%) and high density 14 (20%) areas. The medium and high density areas are in this country associated with low social economic status, as such mothers could have other compounding problems leading to low attendance. Limited finances will pose a problem in travelling from one township to another in a situation where transport facilities are not only expensive but scarce. Busy schedules as mothers strive to make ends meet could be another problem.

There is need for the health system to be sensitive to these problems. Most densely populated shanty townships have no health centres in Kitwe. The mobile services are also very erratic due to transport and staffing problems. A community based programmes could be a solution.

Another important finding was that mothers with 2 or more underfives in the family had low attendance rate regardless of their parity. 17 (24%) low parity mothers and 15 (21%) high parity mothers with 2 or more underfives in family had low attendance rate (Table 2) With scarce and expensive transport facilities between twonships. It could be true that mothers living along the periphery of the township and those living outside the township within which the health centre is located find it difficult to carry all the children to the health centre. Zulu (198<) made similar observations in her study where mothers with a number of small children in the family failed to complete immunizations because of the difficulty of walking with them to the health centre.[22]

This observation further confirms the seriousness of considering taking this service where the clients are in the community.

In another observation, distance from the health centre did not seem to influence the rate of attendance (Table 3) 2< (37%) out of 45 (<0%) who lived near the health centre had low attendance just as 1< (23%) out of 25 (3<%) of those who lived far from health centre had low attendance. From this observation one is inclined to conclude that there is a lot of apathy associated with C.M.P attendance. There seems to be

very little motivation in mothers to utilise this important services, this could be due to lack of appreciating its value. A trend has been observed where mothers value curative services more than preventive services; This must be reversed if the concept of Primary Health Care has to achieve the objectives.

Among the most common reasons given for low attendance (Table 4) were laziness 14 (33%), difficulty carrying 2 or more children to health centre 9 (21%) and tired pregnant mother 4 (9%). The excuse o laziness in this study can only be interpreted as ignorance of the benefits of the service. A high cost benefit of G M P is that it can help mothers to understand growth in their child and take necessary measures to maintain and improve it. Inability to appreciate this fact can lead to an attitude of indefference.

The problem of tired pregnant mothers is real, especially for mother who shun family planning; having 3 underfives in a family can be very demanding for the mother with or without having to walk with them for G.M.P It is pertinent therefore that health workers emphasise the need for family planning, so that mothers are able to cope with their maternal duty of bringing up healthy children.

Some of the other reasons given for low attendance were that, no need was seen after child finished immunization, 3(7%) the health centre was too far from area of residence 3(7%) and that

mother was away from home. Other reasons given during a focus group discussion included.

- Mother too busy at home
- long clinic waiting time
- long queques
- shortage of childrens cards.

When mothers were asked on what they did not like about G.M.P most of them mentioned bad attitude of some nurses and having to wait for one scale.

Most of the mothers 58(83%) had high level of knowledge of the importance of G.M.P (Table 5). From this study it can be seen that there is no relationship between the level of knowledge and mothers education level. It would appear that information regarding the importance of growth monitoring has effectively been disseminated.

However, related to the mothers knowledge was an important finding that mothers do not understand the velocity of growth concept. This was revealed by the fact that none of the 12(17%) mothers with average knowledge and only 19 (27%) of mother with high level of knowledge were able to correctly interprete the weight curves from the test cards (Table 6). Most mothers could not recognise immeadiate sign of growth faltering which was indicated by a static weight plot. This finding is of great concern because comprehensive health care promotion through G.M.P can only be achieved if mothers understand the simple visual record of a chart which aids in the recognition of

inadequate growth. On the other hand, it would be helpful to find out whether in fact the health workers themselves understand this concept, it has been recognised that the growth chart is not easy to use correctly."

In another finding 34 (49%) out of 58 (83%) mothers with high level of knowledge and 8 (11%) out of 12 (17%) mothers with average knowledge had low rate of attendance (Table 7) This finding seem to suggest that having knowledge that G.MP is important does not make the mothers attend G M P regularly.

Most mothers knew that G M P was important because it helped them to know their baby was growing or not, the baby was screened from other diseases and the mother had a chance to learn about child nutrition; But as can be seen from this study knowledge of the interpretation of G M P data was poor. It has been observed in other studies that mother's ability to interprete and understand the growth in her child arouses a desire in her for a regular growth of her child and promotes an appropriate spectrum of progmatic and culturally acceptable actions designed and proved to result in growth.[10]

Most mothers 60 (86%) said that they would be more motivated to attend Growth Monitoring Programme if they were visited by health workers and if the service was made more competitive by having baby competitions.

In order to have a satisfactory understanding of the factors contributing to low attendance, the professional qualifications, experience and knowledge of health workers on growth monitoring programme were looked at.

All the health workers who were involved with G.M.P were trained (Table 8) this finding is contrally to the observation that in Zambia the weighing is commonly done by untrained staff.[8] It can be said from this study that in Kitwe health centres are manned by trained staff. It has been stated that having trained health providers can lead to effectiveness of G.M.P.[13] This however does not seem to be the case in this study because the majority of the older children have been seen to be defaulting. This could be due to of health education and counselling services.

The period of involvement in G.M.P varied ranging from 4 months to 11 years (Table 9). The level of knowledge of the G M P concept was related to the experience that the health worker had; All those with more than 5 years experience with G M P had high knowledge. This is an encouraging observation, in view of the fact that poor knowledge and inadequate training of health workers affect the effectiveness of G M P.

The study shows that while most health workers 12(80%) counselled mothers, this was not effectively done due to insufficient time (Table 10). The majority of the health workers spent less than 5 minutes with individual mothers. Owing to large numbers of children attending G M P, health workers tend to rush through the sessions without paying much attention to individual needs of mothers. It has been observed that most G M P staff do not even show the graph or explain it to mothers, generally the brief oral exhange is mainly related to directing the mother to the next activity.[8] It is important that more time is spent with mothers as individuals for both appraisal and counselling purposes, in order to motivate them.

Results from the study showed that follow up of defaulters at G M P is not effective. 8 of the health workers did not do any home visiting due to shortage of staff and pressure of work at the health centre. The other 7 health workers said they each made an average of 9 home visits per month; This finding contradicted the observation that none of the mothers who were interviewed had ever been visited despite the fact that the majority of the mothers had low attendance rate.

It would appear that health workers either do not have or misuse time for home visiting. It would be helpful to investigate this area. A system of call out slips could be useful where shortage of staff is genuine, sending a reminder slip to the mother preferably through a community local leader (identified for

this purpose could be a useful solution, mothers would be assisted to internalise the importance and necessity of the service if they are persistently reminded of their important role of bringing children for GMP.

5.2. Implications for health system

One of the major elements of P.H.C is M.C.H which provides for for growth monitoring services. G M P is a valuable service that provides Nurses and other workers with information on the health status of children. Records of weight curves can be a basis for the diagnosis of child malnutrition.

It is for this reason that the health workers, involved in the G M P activities should have adequate knowledge and training in order to be able to use and interprete the growth monitoring data effectively. They further need to comprehend the many uses of G.M.P such as education of mothers on child care and collection of useful data for planning and programme evaluation purposes including research.

It has been revealed in the study that mothers have various problems that affect their attendance at G M P. most of these problems can be solved by a sensitive health system. The need of taking the service nearer to the client instead of waiting for them at the health centres cannot be over emphasised.

CHAPTER 6

CONCLUSSIONS AND RECOMMENDATIONS.

6.1 Conclussions.

The study sought to identify the factors contributing to low attendance among children aged between 1 - 5 years at growth monitoring programmes.

The study reveals that there are verious factors contributing to this phenomena. It has been observed that low attendance is related to mothers education and social economic status. Among most common reasons given for low attendance were laziness, which was interpreted as inability to percieve the value and benefits of GMP, another factor was difficulty in walking to health centres with more than 1 underfive and tired pregnent mother.

Other important factors derived from the focus group discussion included, long waiting times at clinics, long queques created by over crowding, shortage of scales and staff.

Weighing children as already have been said has a high cost val ue and is probably the most useful measurement especially a developing country like ours. As such maximum efforts should be made by health workers to generate an understanding among mothers of the values and benefits of this very important service.

Results from this study provide data for critical analysis of the services being offered with a view of looking for more pragmatic and workable solutions.

6.2 Recommendations

1. The District Council should periodically conduct in service education for staff working in health centres so as to update their knowledge. Topics discussed should include communication skill and interpersonal relationships.to help Nurses develop the right attitudes towards their clients.

2. Nurses at District and health centre levels can conduct research directed at exploring more effective ways to assist consumers of G M P service in assuming greater responsibilities for health of their children, especially through a community based programme.

3. The health centre staff should devise effective means of home visiting to trace and encourage defaulting mothers.

4. Health Centres should be provided with adequate equipment, so that if two or 3 scales are used per session, over crowding would be reduced and hence the clinic waiting time by mothers. If problems such as this one are promptly identified and fed to interested advocates such as UNICEF and other N.G.Os, they most probably could help.

5. On other possible way of making the programme more efficient would be for each health centre to keep a register of all the children in their catchment area. The community health workers similary could keep registers of children in their catchment area. Absentees could then be followed up through the community health workers.

6. The group that had low attendance due to laziness was the highest. The fact that most women start feeling lazy when their children have been immunized (thats' after the childs 1st birth day) gives the impression that the main problem is more of the low value attached to growth monitoring as a compared to immunizations. This calls for an educational strategy aimed at re-orientanting mothers towards better perception concerning the values and benefits of G.M.P.

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APPENDIX 1

FOCUS GROUP DISCUSSION GUIDE

(To be translated in local language)

The following guide of questions will be used during the focus group discussion for mothers.

General Health

1. What are the main health problems of children in this community?
2. Is malnutrition a problem?
3. What are your roles as mothers in solving this problem?
4. At what age is malnutrition common?

Health and Growth

5. How do you know that the child is growing?
6. How do you know that the child is not growing?
7. What do you do if the child is not growing well?
8. Do you know about weighing of children?
9. Why do you have to weigh children every month?
10. What is the purpose of the childrens clinic card?
11. What do you like about weighing sessions?
12. What don't you like about weighing sessions?
13. What problems do you find in coming for weighing sessions?

14. What advice do health workers generally give you to promote growth of children?

15. Do Health Workers come to your house to visit your child?

16. What do they do when they visit?

17. What kind of things could your community do to promote the growth of children in the community

18. What do you think the health workers can do to promote growth of children in your community?

Appendix 2.

FOCUS GROUP DISCUSSION REPORT

The 10 mothers who were involved in the focus group discussion were drawn conveniently from the mothers who had come for children's clinic at Buchi Health Centre. The purpose of the discussion was to complement the findings of study.

Most of the mothers were aware that growth monitoring was an important service and they were able to give reasons such as monitoring growth of the child and preventing diseases by getting child immunized.

What mothers did not like about growth monitoring activities were:

1. long waiting time
2. long queues
3. Non abailability of childrens cards and being asked to buy note books for recording baby's weight.
4. Rude Nurses.
5. Having all to wait for one scale.

When asked on problems that led to low attendance as children grew older, some of the problems which were mentioned in their order of magnitude were:-

1. difficulty walking to clinic with more than one underfive child.

2. Laziness after completion of immunizations.

3. Mothers too busy at home.

Opinions of mothers on what can be done to improve growth monitoring services and their attendance included:

1- Home visits by Nurses.

2- To make service competitive (Baby competitions).

3- Rude Nurses to change their attitudes

4- To increase number of scales and Nurses so that the session could finish early.

APPENDIX 3

Coding

INTERVIEW SCHEDULE FOR MOTHERS

INSTRUCTIONS TO INTERVIEWER: 1. Introduce yourself to respondent

2. Explain purpose for collecting information

HEALTH CENTRE _____

DATE: _____

BACK GROUN.

1. Occupation _____ ☐
2. Residential Address _____ ☐
3. Educational level _____ ☐
4. Number of children _____ ☐
5. How many of your children are under the age of five years?

_____ ☐

6. How old is your child? _____ ☐

KNOWLEDGE

7. Have you been bringing your child for weighing? ☐

1. YES
2. NO

8. Is it necessary to bring your child for weighing? ☐

1. YES
2. NO

9. Give reasons for your answer. ☐

_____

_____

10. Is your baby growing well? ☐

1. YES
2. NO

Coding

10. Is you baby growing well?

1. YES ☐

2. NO ☐

11. How do you know this?

_____

_____

_____

12. When would you get worried about your baby's weight (Show curves on attached card)

a. Static weight within road to health 1

b. Weight loss within road to health 2

c. Weight loss below road to health 3

13. What are some of the immediate causes of weight loss in children?

_____

_____

_____

_____

14. What do you do to ensure that your baby continues to gain weight?

_____

_____

15. At what age are you supposed to stop bringing your children for weighing? _____

Coding

16. Are yourstill bringing your other children below the age of five (if any) for weighing?

1. YES ☐

2. NO ☐

17. If "NO" to Q. 16 why?

_____

_____

TIME FACTOR

18. How long does it take you get to the health centre?

a. less than 30 minutes 1

b. 30 - 60 minutes 2

c. more than 1 hour 3

19. How much time do you spend at each baby weighing session?

a. 30 minutes 0

b. 1 hour 1

c. 2 hours 2

d. more than 2 hours 3

20. Do you feel the time you spend at baby weighing session could be put to better use-

1. YES ☐

2. NO ☐

Coding

21. Is the weighing day convinient to you?

1. YES ☐
2. NO ☐

22. If "NO" what day would be suitable for you?

_____

_____

23. Do Health workers attend to you as soon as you get to the health centre?

1. Yes ☐
2. NO ☐

24. If "NO" what do they do?

_____

_____

25. Do the staff that weigh your baby tell you your baby's progress?

1. YES ☐
2. NO ☐

26. If 'YES' how much time do they spend with you and your baby?

a. less than 5 minutes 1
b. 5 minutes 2
c. 10 minutes 3

Coding

27. Has any health worker come to your home to visit your baby in the last six months?

1. YES ☐

2. NO ☐

28. If 'YES' how many times have your child been visited? ☐

29. What other activities take place at baby weighint sessions? ☐

30. Has your child finished his injections ☐

1. YES ☐

2. NO ☐

31. If 'YES' do you still bring him for weighing? ☐

1. YES ☐

2. NO ☐

32. How many times have you brought him in the last six months? ☐

a. 1-2 times 1
b. 2-3 times 2
c. 4-5 times 3

33. What other problems prevent you from bringing children for weighing? ☐

Coding

34. In what way do you think the Health Workers can help you to have your children weighed every month?

=

_____

_____

_____

APPENDIX 4

Coding

QUESTIONAIRE FOR HEALTH WORKERS INVOLVED IN GROWTH MONITORING.

INSTRUCTIONS TO RESPONDENT.

Do not write your name on the Questionaire. Answer all questions please .

All responses will be confidential.

Health Centre _____

Back ground

1. Professional tittle

   1. Public health Nurse
   2. Registered Midwife
   3. Enrolled Midwife
   4. Family health workers
   5. Other: _____

2. Period involved in growth manitoring

   1. less than 1 year
   2. 1 - 5 years
   3. More than 5 years

Organization.

3. How many growth monitoring sessions do you conduct per week? ~~session~~

4. How many children are weighed per session? ----------

5. Which one of the following age groups do you cover most during your weighing sessions?

   1. 0 - 12 months
   2. 12 - 18 months
   3. 2 - 5 years

Coding

6. How long does each monitoring session take?

   1. 1 - 2 hours
   2. 2 - 4 hours
   3. more than 4 hours

7. How many members of staff conduct each session?

   _____

8. Is the number of staff given in Q.7 adequate for G.MP session

   1. YES
   2. NO

9. What are the common causes of weight loss in children?

   _____

   _____

10. At what age is malnutrion common?

    1. below 12 months
    2. 12 - 18 months
    3. 2 - 3 years
    4. 3 - 5 years

11. What advice do you give the mother when a child losses weight?

    _____

    _____

12. Do mother follow your advice?

    YES

    NO

Coding

13. What constraints do mothers have in following your advice.

_____

_____

14. Do you spend time talking with individual mothers on baby's weight progress?

YES ☐

NO ☐

15. How much time do you spend with each mother?

a. less than 5 minutes 0

b. 5 minutes 1

c. 10 minutes 2

d. more than 10 minutes 3

16. Do you feel you need more time with each mother?

YES ☐

NO ☐

17. Do you conduct any home visiting? (If no skip Q 20, 21, 22)

YES ☐

NO ☐

18. Which mothers/children do you consider as priority on your home visiting client list?

_____

_____

_____

19. What do you do when you visit the children in their homes.

_____

_____

20. How many children did you visit last month?

_____

21. What are you doing to ensure that you cover all children under the age of five years in your growth monitoring programmes.

_____

_____

_____

Reasons for special care

.....

.....

Birth–1 year

2–3 years

Kg

10 9 8 7 6 5 4 3 2 1

Food

Malaria Pill

1 2 3 4 5 6 7 8 9 10 11 12

13 14 15 16 17 18 19 20 21 22 23 24

15 14 13 12 11 10 9 8 7 6 5

25 26 27 28 29 30 31 32 33 34 35 36

15 14 13 12 11 10 9 8 7 6

Watch the direction of the line showing the child's growth.

GOOD
Means the child is growing well

DANGER SIGN
Suggests feeding the child at least 5 times each day

VERY DANGEROUS
May be ill needs extra care

Meal Meal Meal

Encourage mother to give extra food, more often to help her child to grow.

These foods are good for children. Also use other foods that are grown where you live.

Maize

In between meals:

Sweet Potatoes Mango Groundnuts Milk

Groundnuts
Green leaves
Beans fish with
Nshima or Porridge
Milk if available

Meals

Annex 7

KITWE DISTRICT COUNCIL

L OFFICER OF HEALTH
SECRETARY
hic Address:
TARY KITWE"

P.O. Box 20070
KITWE
Zambia
Tel.: 212022/212272/212784/218077
212323/212865/215067/218181/212927/212507
Telex: KECITY ZA 61990

REF: KDC/PH/MNTM

26th December, 1991

The Sisters In-Charge
Kaunda Square Clinic and
Chimwemwe Clinic
KITWE

Dear Ladies,

A STUDY OF DECLINING ATTENDANCY RATES ON GROWTH MONITORING

This serves to introduce Mrs Petronella Chishimba who is currently under-taking her studies at the University of Zambia. She is at the moment doing her field practicals in Kitwe district.

The purpose of writing you therefore, is to request you to give her maximum support in providing all the necessary information that is required for her study.

I am sure you will accord her all the assistance as before.

Yours faithfully,

DR. M.N.T. M'FUNE
MEDICAL OFFICER OF HEALTH

/bms.

VARIABLES: DEPENDENT AND INDEPENDENT VARIABLES

CLIENT FACTORS

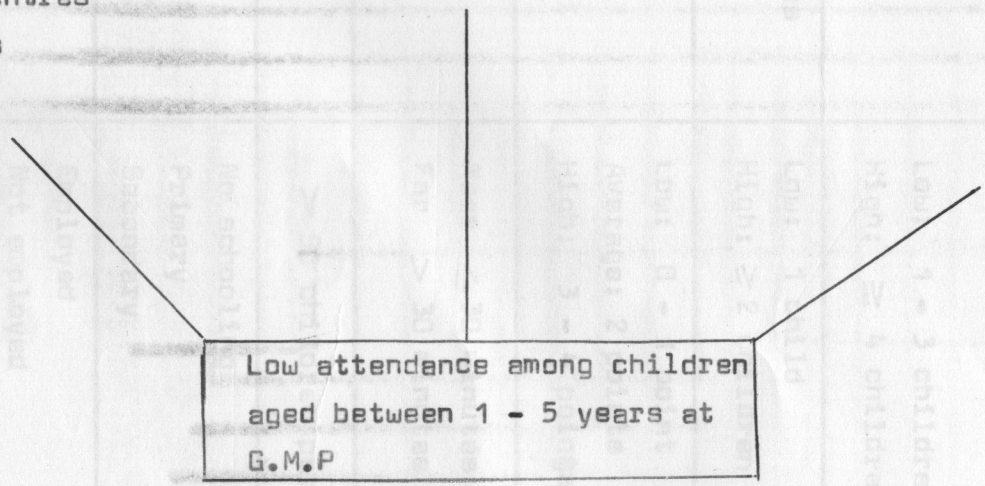
1. Parity
2. Number of underfives in family
3. Knowledge
4. Absence of mother
6. Laziness

HEALTH SERVICE FACTORS

1. Distance to health centres
2. Inadequate facilities
3. Over growding at GMP

HEALTH PRIVIDERFFACTORS

1. Knowledge of GMP concept.
2. Lack of counselling services
3. Lack of follow up of defaulters



APPENDIX 9

VARIABLES AND CUT OFF POINTS

Variable	Indicator and Cut off Point
Dependent: Low attendance	Attendance of 0 - 3 times in six months
Independent: Parity	Low: 1 - 3 children High: ≥ 4 children
Number of underfives in family	Low: 1 child High: ≥ 2 children
Knowledge	Low: 0 - 1 point Average: 2 points High: 3 - 4 points
Distance to health centre	Near ≤ 30 minutes walk Far > 30 minutes walk
Over crowding	> 50 children per session of G.M.P
Education level	No schooling Primary Secondary
Occupation	Employed Not employed
Residence	Low density Medium density High density