An Assessment of the First Year of Life MCH Growth Monitoring Records of Governmental MCH Centres in the Ramallah District for the year 1992.

This study was initiated with the aim of examining the Maternal and Child Health Care Centres of the Governmental health services for the purpse of identifying the problems and suggesting solutions.

The study covered 24 villages MCH centres in addition to Ramallah and al-Bireh MCH centres. An initial examination of the records revealed a very low level of recording. This is why it was decided that only records containing 5 entries or more during the period of January 1992 till December 1992, will be picked up for this investigation.

The Study Resuts

The total number of children estimated to live in these 26 village in addition to Ramallah and al-Bireh = **3626 child.** These estimates are based on community sizes found in the HDIP report on halth and health services, and on the estimate that children under the age of one year compose about 3.3% of the Palestinian population (because children   under 15 form about 50%).

1. The total number of files found at governmental clinic =
1152 files with less than 5 times visiting the MCH clinc during 1992 for growth monitoring
1106 files with 5 or more visits to growth monitoring clinic

Total files =   **2258**
That is, the percentage of children from these communities that have files in these clinics is =
2258/3626 x 100 = 62% of the children

Given that not all thesechildren are followed in growth monitoring regularly, we made a cut line of 5 visits or more as adequate. Of the total 1106 files were found with 5 or more records made. Therefore, the percentage of children who visited 5 times or more = 1106/2258 =   **only 49% of the total files, or**

1106/3626 x100 = 31% of the total number of children in these communities

Note that 5 times or more is not considered regular for growth monitoring. But there were so few regular - 10 visits or more - files that we decided to not consider them.

➢ That is, already, the data indicates a need to really seriously develop maternal and child healthcare services in order to increase the attendance of children and improve their follow up.

➢ ## The Deatails of the Data

The data covered all 26 governmental MCH centres in operation in the Ramallah District, in 24 villages and two towns: Ramallah and al-Bireh

➢ Of the total files 838 originated in villages and 268 in towns. In relation to child population we find that 838/2388x100 = 35% of children in villages have files at governmental mch centres, while only 22% of thechildren in towns have files in governmental MCH centres. Doubtless, some of these children go elsewhere to other clinics and the availability of clinics is higher in towns than in villages. Nevertheless, the percentage of children attending governmental clinics is very low, if one considers governmental MCH centres as essential not only for provision of service but also for monitoring births, deaths etc.

➢ It must be noted that those studied where all followed from point o till 12 months during their life, during the period 1992.

➢ Of the total number of children (1106) 56% were born in hospital in 1992, 26% in outpatient clinics or through the help of a doctor at home, ad 13% at home. Clearly, much could be done to improve home delivery situation at the village level especially, through the improvement of service and training staff.

➢ When correlating place of birth by area where families reside, we found no difference between hospital births and urban or rural local, where 60% of those living in villages registered as having had birth in hospital, as opposed to 56% from those living in towns. These results indicate that access in the form of distance to hospitals, does not have an impact on the decision to have a child at the hospital. Other factors are in play here, including the very high

costs of hospital births during 1992 - those have gone down since that time, so we would expect hospital births to rise. Other factors determining the place of birth include the birth order of the child: in this society, a first born is usually born in hospital, while after the first few births, more women tend to have births at home because   of their increasing experience as well as age.

➢ When examining records to look if the MCH physician made a home visit during the initial days of the birth of a child at home, only one of all the records had a registration that the physician actually conducted a home visit during that time.proble **These results are rather problematic** because, either home visits at birth are not recorde, or not done at all. Either way, this reflects negatively on the adequacy of the MCH centres and serivces.

➢ When examining records for the number of respiratory tract infections that children had during their first year of life - an item that must be registered on the growth chart, according to governmental instructions - **we found a rather low percentage of recording: only 9% of the records had any information at all**. Once again, this raises serious question about the quality control of growth weight monitoring.

➢ Likewise with incidents of gastro-intestinal disease during the first year of life of the children. **Only 4% of the records had any entries, although special places in the records have been assigned in order to be filled.** Clearly, much needs to be done to supervise MCH activities as well as upgrade and re-train the staff on how to record properly and how to utilize made records in order to assess the health status of the child. Needless to say, further investigation is needed to determine why such recording of important information is not made. It is around such an investigation that can increase our understanding of the problems that we can then plan future policies and actions.

➢ Interestingly, recording the educational levels of mothers was found to be almost complete. We believe this is due to the fact that this information is only recorded once, when opening thefile, making it easier for nurses to abide by instructions. Overall, the educational picture of these mothers does not differ substantially from the general educational picture of women in the rest of thecountry: we found that 5% had no education at all, 25% had up to 6 years of schooling, 34% had 7-9 years of schooling and the rest higher levels ofeducation and up to 19 years.

➢ An interesting finding was the significant difference in the educational levels

between mothers living in urban areas relative to villages: we found that 36% of women living invillages had 0-6 years of schooling in contrast to only 11% among women living in towns. Likewise, we found that only 27% of women living in villages had more than 9 years of schooling in contrast to a high of 62% among women from towns(Chi square = 121.70443, p=0.00000). Clearly, the discrepancy in the educational level between urban and rural women is astute enought to raise questions about the educational levels of women and their's children's health and nutritional status.

➢ Fathers occupation: once again father's occupation seemed to be recorded rather well, where only 3% of the files examined were found not to have this information. Again it is probably due to the idea of workers that this needs to be filled only once. Overall, 59% of the fathers were workers at the time of opening the file, 31% had private work, 9% were white collar workers, or employees, and only 1% were recorded as in prison, dead or unemployed. These results raise questions as to the reliability of this data, as the rate of unemployment in the country is rather higher than this, reaching 30-40% of male workers in some communities. This implies that we should be careful about utilizing this data for assessment, because of the reliability problem.

➢ However, crosstabulating work by urban or rural locale revealed significant differences between the work of rural dwellers and those of urban ones. While 71% of rural fathers were listed as workers, only 23% of urban ones were workers;   only 6% of rural dewellers were listed as employees, and white collar workers, in contrast to 19% of town dwellers. Finally, 22% of rural dwellers had private work in contrast to 56% of town dwellers (chi square = 192.37232, p=00000). On the whole , these data reflect the job distribution in the country as a whole. However, they do not indicate the rpesent situation of employment, rather the situation of employment of fathers at the time of opening the file, as the file appears not to be periodically updated when it comes to this variable.

➢ It was found from the data that the average number of children in the families was 3.6, rather lower than the overall national average, and suggesting that the data is incomplete. Examining total children by socio-economic determinants, we found a significant differnce between the number of children and the educational level of mothers, with decreasing number of children with increasing education: 27% of those with 0-6 years of schooling had 1-2 children, in contrast to 49% among those with 10 or more years of

school. Likewise, a high of 49% of women with 0-6 years of schooling had 5-12 children, in contrast to a low of 18% among those with 10 years of schooling or more (chi square = 9267346, p=0.00000). These data are compatible with national results and indicate that education of women is likely to improve child spacing, an important component of maternal and child health. When examining the relationship between total number of children and urban or rural locale, there was a significant difference, but not as strong as the education of women: 39% of those with 1-2 children lived in villages in contrast to 45% among town dwellers, while 31% of rural dwellers had 5 or more children, in contrast to 22% among town dwellers(chi square =8.891778, p =0.000). These results are probably due to the difference in educaitonal levels of women in rural versus urban areas. That is, it appears that the educational level of women is the ultimate determinant of family size.

➢ An examination of the data revealed that, of the files that had 5 or more registration points in them,   33% had 5-6 visits during their first year of life, or visited rather irregularly, 57% had 7-9 visits, or medium in regularlity, and only 10% visited 10-12 times, that is, regularly. These results once again raise the question of quality of care, and imply a need for increasing the understanding of staff as to the importance of regular visits, including home visiting when mother do not appear, health education, and the adequate supervision of clinic operations. These low quality results are perhaps due to the absence of nurses from clinics on a full time basis, including the fact that they are too overworked usually to conduct the needed home visits to encourage parents to bring their children to the infant growth monitoring clinc.

➢ Of the total children, 81% began their life with breast feeding, 13% were fed breast and powder milk and only 6% began with powedered milk.   However, with age, the picture begins to change. Between 3-6 months, only 5% remain on the breast, another 10% have mixed feeding, 3% use powder alone, 41% are on the breast as well as solid foods, 16% are on powder and solid, and 31% on breast, powder and solid. Overall, between 3-6 months, only 41% are fed breast milk and solid foods, what is needed during this period of their lives, and the rest are mixing, with 59% mixing with powdered milk in an inappropriate for age manner. Although some of these women are workers and must use milk poweder, nevertheless, it is probably true that the large majority of these women do not work, raising the question as to why they use

milk powder which is costly as well as less benefician for their children during this young age. This raises the issue of the need to consolidate health education activities at MCH centres. As for feeding at 7-12 months, 4% of the children were listed as surviving on milk alone. Although a small perceptage, this is a high risk group that requires health education and home visiting.

➢ Examining the data on the birth weights of these children, we found that 5% were registered as having been born under 2.5 kilos in with. It is difficult to interpret these results: on the one hand, reliability of the records are in doubt. On the other hand, those delivering at home often mix up the birth weight of their children. In view of the finiding that very few of the children were visited at home immediately after their birth at home, it becomes impossible to infer from this data any reliable conclusion. In contrast, it is also possible that those who are underweight do not come to the mch clinic but opt to receive care elswhere, in hopsitals, where there is intesive care. A third explanation is that those die early off. It is interesting to note that by the age of one year, 9% of these children continue to be underweight, or under the weight of 9 kilograms. That is, although the numbers are very small, they suggest that underweight increases slightly with age. However, an examination of weight in relation to height at that age revealed that 13% of the children were under-nourished. This is an important result, incidating the importance of the use of length measurements to assess nutritional status. Usually, this is not done in clincs: only the weight is recorded on the chart. We did the weight/length assessment in this study to observe the difference. That is, using weights alone omitted 4% of the children who are high risk and require intensive follow up.

➢ An attempt to correlate birth weight and nutritional status at one year of age with selected socio-economic and behavioral determinants:

Attempting to relate the birth weight, divided into high risk and normal weight groups, as well as weight at 12 months of age, again divided into high risk and normal groups with selected socio-economic determinants proved to be a problem. These variable did not relate at all to the locale of the family, the educational level of the mother, feeding patterns at 3-6 months and 7-12 months, vitamin supplemental, the total number of children the mother has, among other variable. None showed any relationship of any significance. Yet at the same time, it is well known from the results of other studies both locally and internationally that these

factors have an important influence on nutritional status. This leads to the conclusion that the data at hand is not reliable enough for any statistical analysis. Possible sources of error are many: to begin with the files are not complete. Moreover, information is sometimes recorded and sometimes not. No one knows the quality of measurements made. Files are not updated to reflect changing socio-economic situations of families, among many other consideration.

That is, the conclusion of this research is firstly, a priority in MCH provision is the imporvement of recording. This must focus on re-assessing the system, its ease of administration as well as the understanding of the staff of what they are doing and why. Secondly, it is clear that adequate supervision is lacking, calling for developing or improving the supervisory system for these MCH centres. Finally, it is only through supervision mixed with upgrading and training that such a problem can be resolved. Indeed, record keeping is crucial not only for observing the growth of children, but also to assess and further development the health care services system here. Without these correct records, policy makers and planners would have difficulty in truly improving these services to fulfil people's needs.

Finally, to begin solving the problems of record keeping in these centres, it is crucial to begin another investigation, focusing on identifying and understanding the reasons why records are not kept well.