UN Inter-agency assessment mission on impact of food crisis in Pakistan

IMPACT OF FOOD CRISIS ON HEALTH

Introduction/ Background

Pakistan, with a population of 164 million, is the most populated country in the Eastern Mediterranean Region (EMR) of World Health Organization and accounts for 30% of the regional population. The level of socioeconomic development is still low, human development index is 142nd in the world and 24% of the population lives below poverty line with 17% earning less than a dollar a day\(^1\). The health profile of Pakistan is characterised by high population growth rate, high infant mortality and child mortality rates of 78 and 97 respectively\(^2\), a high maternal mortality ratio of 320 per 100,000 live births\(^1\) and a high burden of communicable diseases. The major causative factors attributed to the morbidity and mortality in children includes malnutrition, diarrhoea, acute respiratory illnesses and other communicable and vaccine preventable diseases. Maternal morbidity and mortality is affected by high fertility rate, insufficient spacing, low skilled birth attendance, illiteracy, malnutrition and insufficient access to emergency obstetric care services. While the provision of health infrastructures has improved over time, quality of care and other issues of access are important barriers to health seeking behavior, and widespread regional and socioeconomic inequalities persist. The total expenditure on health is 2.5% of the gross domestic product, of which 80% is private expenditure and 20% is public. Ninety eight percent of the private expenditure on health is out of pocket expenditure\(^3\). About 2.3% of households are estimated to experience financial catastrophe\(^4\) due to health care costs, corresponding to over 150 million people worldwide\(^5\).

Several large scale and small scale nutritional surveys have been conducted and all point towards serious systemic deficits in nutritional status. At the national level, 24% of the population is under the calorie based food plus non-food poverty line and more than 41% children less than 5 are under weight for their age. Over half the children are affected by stunting and about 9% by wasting\(^6\). A recent study of 1407 households in two districts in Sindh conducted by Action against Hunger has placed the prevalence of acute malnutrition at 22%. A positive relationship exists between the age of the child and the prevalence rates of stunting and underweight. There are also significant provincial variations in malnutrition rates in Pakistan, while no differences in malnutrition rates are apparent between sexes. The prevalence of stunting appears to be associated with the overall level of development of the provinces, being lowest in Punjab and highest in Balochistan, the least developed

\(^1\) World Health Statistics, 2008
\(^2\) Pakistan Demographic Health Survey(PDHS) 2007
\(^3\) World health statistics 2008
\(^4\) Health care payments reaching or exceeding 40% of a household’s capacity to pay as its non-food spending hence associated with significant financial stress.
\(^5\) World health statistics 2008
\(^6\) Pakistan MDG report, 2006 GoP
province. Prevalence of anaemia in the pre-school age is estimated to 50.9% of the population approximating to 10,862,000 and has been graded by WHO as a severe public health problem. The proportion of pregnant women with anaemia is estimated to be 39.1% of the population estimation to about 1,912,000 pregnant women 27.9% of the non-pregnant women in the child bearing age have anaemia.

The anthropometric deficits are systematically higher in rural areas probably due to the lower socio-economic status and to very poor access to basic health services.

Food consumption is just one of the multiple factors which interact and have an impact on the nutritional status of the overall population. Other important influences include morbidity, poor coverage of health infrastructures and socio-economic factors.

The relationship between food and subsequent malnutrition and health is a complex one and dependant on many factors as is evident by the diagram below. Figure 1 illustrates the conceptual framework developed for understanding the causes of malnutrition. Three levels of causes are identified as:

1. Immediate causes which act on the individual
2. Underlying causes that influence households and communities
3. Basic causes which act on entire societies.

**Conceptual framework of the underlying causes of malnutrition**

![Conceptual framework of the underlying causes of malnutrition](source)

The immediate causes of malnutrition in an individual are inadequate food intake and disease. The cycle of infection and malnutrition describes how infection leads to malnutrition and vice versa. Most malnourished individuals suffer from infections due to decreased immunity.

Underlying causes include food, care and health. All three not only overlap but can be disrupted in times of crises like emergencies and chronic crises.

- Food insecurity is about the availability, access and utilisation of food.
- Caring practices are the way community members, especially the vulnerable, are fed, nurtured, taught and guided.
- Health refers to a range of factors linked to access to health care, safe water and sanitation.

The basic causes of malnutrition are related to formal and informal institutions, infrastructure and physical, natural, social and economic resources, and the type of shock that leads to an emergency. It must be kept in mind that all three clusters of underlying causes are subject to seasonal variation which can be magnified in an emergency or time of crises.

The rapid rise in the price of basic foodstuffs is evident all over the world and is beginning to have a profound humanitarian impact in the poorest countries. Pakistan is one of the 32 nations that is predicted to have severe food crises and subsequent social unrest if domestic policies are not altered. There are early signs it will exacerbate malnutrition rates. In the coming months many poorer populations will be forced to switch to cheaper, less nutritional food. Moreover, the populations of the country dependent on food from other provinces/districts, particularly those in urban areas, are likely to eat fewer meals. The resultant increase in malnutrition and associated morbidity will have a profound impact on already increasing poverty levels, with subsequent economic costs due to reduced work productivity and increased health care costs. Aggravating factors include a lack of awareness, low literacy and poor hygiene. The diagram below shows the complex interaction of factors around a worsening food security situation and the affect on both the individual health and health system.

Diagrammatic representation of the Impact of food prices on health:
Survey findings and discussion

Due to the impact of rising food prices on health as described above, the rapid security assessment of food prices included a component on health and nutrition. This was accompanied by in-depth interviews with selected health care providers in each of the districts sampled. While the data was analysed according to district and provinces, the figures reported here are based on overall percentages unless significant differences exist.

Out of a total of 322 households, 284 (88%) reported at least one family member as sick in the last two weeks. While reporters’ bias may be a reason for the extremely high percentage reported, it is also plausible as the survey targeted the poorest households in the most vulnerable districts of Pakistan. A breakdown of household morbidity in the last two weeks prior to the survey is given in the table below. Three percent of households reported a death in the family during the last three months.

<table>
<thead>
<tr>
<th>District</th>
<th>Men (%)</th>
<th>Women (%)</th>
<th>Children (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NWFP</td>
<td>12.0</td>
<td>14.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Punjab</td>
<td>16.0</td>
<td>20.0</td>
<td>10.0</td>
</tr>
<tr>
<td>AJK</td>
<td>12.0</td>
<td>14.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Balochistan</td>
<td>14.0</td>
<td>16.0</td>
<td>8.0</td>
</tr>
<tr>
<td>Sindh</td>
<td>10.0</td>
<td>12.0</td>
<td>6.0</td>
</tr>
</tbody>
</table>

Out of these 284 households reporting sickness, 202 (71%) sought treatment outside the home. This percentage was greater (58%) in rural areas as compared to urban areas (42%). The proportion was highest in Sindh province (31%) and Balochistan (21%) followed by NWFP (18%), Punjab (18%) and AJK (12%).

The main reasons for not attending health services were a perception of “treatment not required” and a lack of money. Lack of money was considered most important in Punjab (62.5%) and NWFP (25%) while transportation was mentioned by most in Punjab (50%) and Balochistan (50%).

On the whole 88% of households required some form of medicine for a family member during the last 3 months. The majority of these drugs (94%) were brought at a private pharmacy with only 6% acquired for free from public facilities.
Thirty percent of households had spent between one to three thousand rupees on this medicine, 25% spent up to 500 rupees and 24% spent over 3000 rupees. Out of the total monthly expenditure, on average 7.1% is spent on health. Eleven households reported being in debt due to excess health expenses. Furthermore 71% of all households reported an increase in the expenditure on health as compared to the last year while 24% reported no change. Five percent reported a decrease in health expenditure. While our basic assumption is that this change is associated with cost of living and food, this area warrants further in-depth exploration to identify specific causes.

With regards to child feeding practices 81% reported currently breastfeeding children less than 6 months with a wide variation between rural and urban areas at 64% and 36% respectively. Forty-five percent of children were given food and water other than breast milk, again with a wide discrepancy between rural and urban areas at 71% and 29% respectively. Among provinces the practice of feeding less than 6 month old children with foods other than breast milk was most prevalently reported in Balochistan (50%) and Sindh (36%).
With regards to the same child (less than six months old and currently on breast milk), 13% reported feeding other food (including porridge and gruel) in the day prior to the survey. This was highest in Balochistan (75%) and Sindh (25%). The practice is most prevalent in rural areas (75%) as compared to urban areas (25%).

In Pakistan, the breastfeeding initiation rate is reported at 95%. Literature, however, shows the prevalence of exclusive breastfeeding for up to four month old children in Pakistan to as low as 16%. While we can obviously not make generalized statements based on this study, it does point towards inappropriate breastfeeding and weaning practices that have direct consequences on the health of a child. Despite some variations, the situation is dire in both rural and urban areas.

It is important to note that sickness and increased health expense was mentioned as a significant shock by 54% of all households interviewed. This response was not prompted.

Apart from the questionnaire, 32 health care providers were also interviewed in all districts. These included general physicians and community health workers. Half of them reported an increase in disease magnitude as compared to the last year. While two thirds reported seeing an increasing number of malnutrition in their practices, only 6 had received specific training for the management of severe malnutrition. Half the health care providers referred such cases to the secondary facilities, while the rest “cannot do anything” but counsel.

While we obviously cannot make generalized statements based on our survey, it does show, in the population sampled, a significant level of morbidity, poor access to health care, specifically with regards to acquiring medicine, poor breast feeding practices for young children and, most significantly, an increase in health expenses which may be due to increase morbidity and/or general inflation. All this is within the context of the poor and vulnerable population sampled.

The effect of the food crisis will vary depending on vulnerability within societies and even households. Expected changes in dietary patterns may affect the growth of children, and will impair the micronutrient status of all groups. In the short term, there is likely to be an increase in child morbidity and mortality as well as maternal mortality. In the longer term it may lead to impaired mental development, diminished learning ability, reduced work productivity, and increased prevalence of chronic disease. Wasting (low weight for height) among young children is likely to increase, and anaemia and other micronutrient deficiency conditions, especially among women and children, will rise. In the long term the negative health impacts of a protracted food crisis will delay the attainment of the health and nutrition-related MDGs (1, 4, 5 and 6).

The poorest households will be most affected. Literature shows that households reduce their food expenditures by 0.75% for every 1% increase in food prices. Moreover, it will affect their ability to access basic health services, since a large proportion of their health care is paid for from out-of pocket-expenditures. In the absence of social protection mechanisms for health and nutrition, the combined effect of spiraling food prices and lack of health care may be catastrophic for poor households. Above all, the food price crisis is estimated to have set back progress in reducing poverty by seven years.
Food insecurity is a major development problem across the globe, undermining people’s health, productivity, and often their very survival. Efforts to overcome the development challenges posed by food insecurity necessarily begin with accurate measurement of key indicators at the household level. This is due to the fact that identification of household behaviors relating to food access serves as a critical building block for the development of policies and programs for helping vulnerable populations, the effective targeting of assistance, and the evaluation.

In response to the Rome Conference on Global Food Crisis, WHO HQ/HAC highlighted the following as important considerations that WHO will pursue:

a) The need to underscore the human dimension of the food crisis;
b) The need to monitor its impact on nutrition, health and poverty as well as its effect on the health- and nutrition-related Millennium Development Goals (MDGs);
c) The need for sound information and analyses to ensure that the most vulnerable groups are targeted;
d) The need for health and nutrition inputs for developing and/or scaling up food aid, combined with social protection activities to shield the most vulnerable groups.

WHO’s response will address the above considerations and will advocate for all partners and stakeholders to engage in the response. It will also help Government of Pakistan assess the health and nutrition effect of the food crisis and design and implement measures to alleviate its impact among the most vulnerable populations.

The following activities are proposed for implementation:

- Supporting the Government in assessing the health and nutritional situation related to food insecurity, the information thus yielded to serve as the basis for mobilizing resources.
- Using modelling techniques to draw up projections of the health and nutritional effects of reduced food access in order to identify vulnerable population groups and evaluate potential health outcomes using different scenarios;
- Monitoring the health and nutritional status of the most vulnerable populations by establishing surveillance systems.
- Strengthening the Government’s capacity to support monitoring of the health and nutrition situation and strengthening of nutritional surveillance systems,
- Helping the country scale up effective nutrition action, including management of severe malnutrition, promotion of exclusive breastfeeding and appropriate complementary feeding practices, improving access to specific micronutrient supplements, delivering primary health care services, promoting food hygiene and a safe food supply when distribution channels are disrupted;
- Designing and helping implement emergency /contingency plans, medium term programmes and projects that address the health and nutrition impact of the food crisis in the most vulnerable districts and population groups.
- Supporting the country in strengthening and implementing integrated national nutrition policies to improve the supply of and access to safe and nutritious
food. This must be done at all levels in the health care delivery system including the primary health care level as well as the community level.

- Supporting the development and scaling up of social protection activities such as food aid, cash transfers, etc. to shield the most vulnerable populations from the negative impact of the food crisis; These activities can be linked to other health activities like immunization and vouchers for prenatal care.

- Providing policy advice including support for advancing the agenda of social protection related to nutrition;