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The Unwanted Girls

—A Study Of Infant Mortality Rates

THE economic level of a country measured by the national income is highly correlated with mortality level, particularly mortality of infants and children. Yet there is far more to achieving health then just the money needed to buy it. The presence of public health programmes of various types such as pest eradication , maternal and child health programmes, make a difference. The pattern of income distribution within a given country is also a powerful factor. Where large segments of the population are well below the national average, one would expect major variations in health status too. While economic development and the existence of health programmes are exceedingly important in affecting a nation's health status, distributional factors must receive more attention. These distributional factors include both the distribution of income between classes and also between sex and age groups.

It is important to remember that both distribution between different sections of society, and distribution between individuals in each family will affect the overall health statistics of a country. Where distribution patterns are more imbalanced, the overall national or regional health statistics will be affected.

Data from rural India are examined here in order to gain an idea of the magnitude of the effect of extreme discrimination against females in distribution of health benefits. I proceed from a review of data on infant mortality rates in several Asian countries to their patterns statewise in India and then finally to a glimpse of the situation in Punjab, a state which, by economic measures, is the most developed of all in India. The question I wish to raise is : what role does sex bias play in diverting the health benefits of development towards males and away from females ?

Infant mortality rate is defined differently in various sources. The definition followed here is : the number of deaths among children under one year of age in a year per 1,000 births in that year. The infant mortality rate is closely related to a country's level of development and is often used as a measure of a country's well being.

According to United Nations findings, in 1976, the average infant mortality rate for developed countries was 28 while that of less developed countries was 99. In several Asian countries, data from the late 1960s and early 1970s show a range of infant mortality rates : 15 in Hong Kong, 35 in peninsular Malaysia, 38 in South Korea, 51 in Sri Lanka, 56 in Thailand, 57 in Burma, 106 in Pakistan, 132 in India, 140 in Indonesia, 153 in Bangladesh and 185 in Afghanistan. These figures correspond generally to the "development" level of these nations, with India having a high infant mortality rate but not as high as those of Indonesia, Nepal, Bangladesh and Afghanistan.

Mortality data that are dependable are rare for any developing country and India, is no exception. For India, many analysts use data published by the Sample Registration System (SRS) which

Statewise Infant Mortality Rate, Male-Female Differential In Infant Mortality Rate, and State Domestic Product

State	(1) Average IMR 1975-77 (SRS)	(2) Average IMR 1968-71 (SRS)	(3) IMR (m-f disparity) 1968-71 (SRS)	(4) SDP per capita (Rs 1975-76 prices)
Kerala	52	57	+10	1000
Jammu and Kashmir	66	NA	NA	825
Karnataka	81	94	+ 9	1038
Maharashtra	94	96	— 2	1455
Punjab	104	98	−14	1688
Bihar	NA	104	— 9	NA
West Bengal	NA	104	+ 2	NA
Tamil Nadu	108	113	+15	997
Haryana	113	71	— 9	1514
Himachal Pradesh	114	NA	NA	1165
Andhra Pradesh	123	110	—18	897
Assam	128	NA	NA	848
Orissa	141	131	+10	834
Gujarat	146	142	— 5	1236
Rajasthan	146	136	— 9	973
Madhya Pradesh	146	134	— 7	790
Uttar Pradesh	181	167	— 3	NA
All India	NA	132	— 3	NA

Source : Modified from tables in Tim Dyson and Mick Moore. "Gender Rela-tions, Female Autonomy and Deomgraphic Behavior," *Population and Develop-ment Review,* Vol. 9, 1983 and Sudipto Mundle, "Recent Trends in the Condition of Children in India," *World Development,* Vol. 12, 1984.

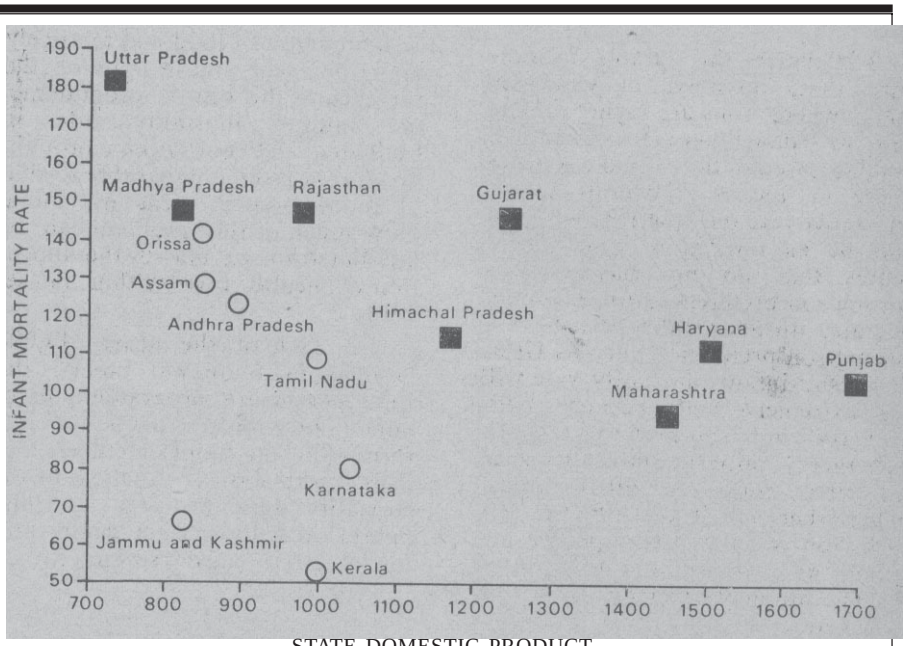
operates in most states and provides regular reports on mortality. The SRS of India gathers data on vital rates in a sample of villages, segments of villages and urban blocks. There is no doubt that the SRS data on infant mortality are more reliable now than in the first pilot study in 1963-64.

Much infant and child mortality in India, however, goes unreported for administrative and cultural reasons. The data gathering arms of the government cannot reach all the villages, all the time. In some areas of India, it is common for wives to return to their natal households to give birth. If the infant dies, the death may not get reported in her husband's village In highly son preferential communities, the birth or death of a daughter is an unremarkable event which has a higher probability of going unrecorded than the birth or death of a son.

It is important to note that, contrary to general trends worldwide, each state in India did not experience a decline in infant mortality rate from 1968-71 to 1975-77. There is a pattern. Among those states which had a lower infant mortality rate in 1975-77 (Kerala, Jammu and Kashmir, Karnataka, Maharashtra, Punjab and Tamil Nadu) all experienced a decline in infant mortality rate except for Punjab. In the remaining, high infant mortality rate states, the rate rose between the two periods. Haryana stands out as having the highest rise, from 74 to 113. We do not know how much of this change in Haryana can be explained by an erroneously low estimation in 1968-71. However, since Haryana resembles Punjab on most measures, we might suspect that its infant mortality rate, like that of Punjab, did not, in fact, decline.

It is perhaps significant that both Punjab and Haryana, the two wealthiest states, experienced a rise in infant mortality rate. They are also states with high male-female differentials in infant mortality, that is, many more female infants die than do male infants.

In this table, all the poorer states, that is, those having a lower state domestic product, do not necessarily have a higher infant mortality rate than the richer states. The poorer states are Tamil Nadu, Assam, Orissa, Gujarat, Madhya Pradesh and Uttar Pradesh. States with a medium state domestic product, between 800 and 1200, include Karnataka, Kerala, Himachal Pradesh, Andhra Pradesh, and Rajasthan. The states with a high state domestic product of over 1200 are Maharashtra, Punjab, Haryana and Gujarat.



Jammu and Kashmir, one of the poorest states, has one of the lowest infant mortality rates while Uttar Pradesh, the poorest state, has the highest infant mortality rate. States enjoying a medium prosperity also exhibit variation with Kerala having the lowest infant mortality rate and Rajasthan one of the highest. The prosperous states also vary in infant mortality rate. Maharashtra has a fairly low rate for India while Gujarat has one of the highest. It is noteworthy that the most prosperous states fail to exhibit infant mortality rates as low as many states which are much less prosperous. A more interesting pattern emerges when one separates states with a high proportion of female infant deaths from the others. The states with relatively high female mortality are Uttar Pradesh, Madhya Pradesh, Rajasthan, Gujarat, Himachal Pradesh, Haryana and Punjab (See column 3 in the table).

Little girls trained early to become little mothers

The graph depicts the relationship between infant mortality and wealth of the states as measured in "state domestic product." There is a very clear pattern : states shown by darkened squares are those having higher female infant deaths than male infant deaths, while states shown by clear circles have mortality rates that are equal between boy babies and girl babies, or with more girl deaths. The darkened squares show a decline in infant mortality rate with increased wealth, while the clear circles show a more moderate decline of infant mortality rate with increased wealth.

I interpret this graph to indicate that, possibly, in wealthier states where sons are highly preferred to daughters, for example, Punjab, wealth does make a difference in reducing overall infant mortality rate but the rate will still not be as low as in some poorer states that do not have such a strong son preference, for example, Kerala. In poor states that have a strong son preference, such as Uttar Pradesh, infant mortality rate will be extremely high because both poverty and son preference work together to raise the mortality level of girls and boys. Furthermore, where there is not a strong preference for sons but the people are poor, as in Orissa, the infant mortality rate may nevertheless not be lowered.

So economic conditions and preference for boys over girls are two factors which must be taken into account when analysing the infant mortality rate in India, even though they do not provide a full explanation for the variations in infant mortality rate in different parts of the country.

Thus far, little attention has been paid to the effect of gender discrimination on the statewise statistics.

Punjab is India's wealthiest state. Its economy is agricultural with wheat as the major food crop. But there is also a well developed industrial sector. Within Punjab, Ludhiana is usually recognised as the most "developed" district. Ludhiana district also stands out because it houses one of the best medical colleges and community health programmes in India, Ludhiana Christian Medical College. Ludhiana and the Punjab are squarely in that area in north-western India where the highest number of baby girls die, in comparison to baby boys.

Since the early 1970s Ludhiana medical college has been monitoring the reproductive and health status of the surrounding population—first as a pilot project in three rural locations and one urban location, and later the entire surrounding block with a population of about 85,000. In spite of Ludhiana's economic status — its abundance of food and relatively high incomes—and in spite of the presence of the health programme, the infant mortality rate in Ludhiana has not been brought down to a level comparable to that of much poorer areas in India. How much of this problem can be attributed to sex bias in the allocation of health care within households ?

For each of the nearly 14,000 families in Sahnewal block, the Ludhiana health programme maintains family folders

Bharti

containing information on family members and their health status. Analysis of the mortality data provides startling figures on differences in death rates for children aged seven to 36 months. In this group, female deaths constituted 85 percent of the total in 1983. We do not at present have the figures for children under the age of one year.

The SRS data for Punjab as a whole in 1968-71 show the difference between male and female infant mortality rate as 14, which means that male infant mortality rate was 97 and female 111. I suspect, however, that many more female than male infant deaths go unrecorded in SRS data, particularly in highly son preferential regions of the state, and that the difference in mortality rates is therefore much higher.

Estimating the female infant mortality rate conservatively as 50 percent higher than the male infant mortality rate, the male rate would be 70 and the female 105. If one were instead to estimate on the basis of the Ludhiana data that female infant deaths constitute 85 percent of all infant deaths, then the male infant mortality rate would be 31 and the female 177. Although this may sound extreme, the very low male infant mortality rate does make sense when one considers the great investments that are made in sons in Punjab, and that resources, both food and medical care, are there to be used if the family considers the child to be a high priority, as is the case with most sons.

Documenting the extent of female infant mortality in India is an important task, particularly if such documentation leads to improved health care and points to the need for more deepseated social changs. The surveillance system developed in Ludhiana is a major step in the direction of pinpointing children most at risk in the population so that intensified steps can be taken to save the lives of those children.

Clearly, economic development which brings wealth into a region enabling it to support decentralised health care is helpful. Even though its benefits go first to males, and only more gradually to "unwanted" females, progress does occur. An important issue is how such a system could take place in a state such as Uttar Pradesh which lacks comparable economic resources while exhibiting an extreme sex bias in favour of males. This problem raises the key issue of the financing of a decentralised, home based health care system that seeks to provide health care for all. ❐