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Women and Nutrition in India Some Practical Considerations

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In recent years there has been a remarkable upsurge of interest in the health and nutrition problems of women in the country, thanks to the vigorous "women's movements", which have served to highlight current disabilities of our women. In order that this new awakening is channeled into truly constructive directions, it is important that the scientific foundations of our present concern with respect to women's health and nutrition are clearly understood.

The Current Picture

To be sure, during the last 40 years, there have been some impressive gains with respect to women's health. Life expectancy at birth for females in the country, which stood at 31.7 in 1950, rose to 54.7 in 1980³. Female child mortality (zero to four years) had declined to 38.6 (1986) and female infant mortality had declined to 97 (1986)⁵. But while more women are thus surviving, there is unfortunately not much evidence of substantial improvement in the health and nutrition status of the survivors. Three illustrative observations will suffice.

1. Incidence of low-birth-weight deliveries: The hallmark of poor maternal nutrition in a community is the high proportion of babies born in it with low-birth-weights – less than 2.5 kg (small for gestational age). This proportion was reported to be nearly 38 percent in poor rural communities in South India in 1955¹⁰. Studies carried out nearly 30 years later, indicate that the situation today is not much better. Indeed, a recent study in Calcutta had actually

revealed a shocking proportion of 56 percent of babies with low-birth-weights among deliveries in urban slums of Calcutta². This figure of 56 percent is probably much higher than what generally obtains in the country; however available evidence would suggest that it is still the case that nearly one-third of babies born in our country are of low-birth-weight. Low-birth-weight of offspring is not only an evidence of poor maternal nutritional status but is also an indicator of possible poor future development of the baby as the pioneering studies of Shanti Ghosh and colleagues had shown⁸. We have, therefore, reason to feel concerned over the persistent high proportion of deliveries of low-birth-weight infants in the country.

2. Extent of growth retardation: The Indian Council of Medical Research (ICMR) had carried out a countrywide study of growth and development of children in 1955⁷. Almost 20 years later, the National Nutrition Monitoring Bureau (NNMB) of the ICMR had also published its findings of heights and weights of children (boys and girls) of different ages, covering a large part of the country⁴. The earlier ICMR study included both urban and rural children, the latter naturally representing the predominant part of the total sample. The NNMB study largely captured the rural communities. In order to fully ensure the validity of the comparison of the results of these two studies, we have taken into consideration, for our present purpose, only the earlier ICMR data with respect to rural girls. It will be seen from Figures 1 and 2 that the ICMR data of 1955 and

the NNMB data of 20 years later, both of them for rural girls, are almost identical. There is no evidence of secular trend indicating improved growth performance in the succeeding generation – a feature expected of all successful developing societies.

3. Women at risk: It can be computed, on the basis of available growth data, that today nearly 24 percent of adult women in the reproductive period have body weights less than 38 kg and 16 percent have heights less than 145 cm⁴. These women, according to generally accepted criteria proposed by WHO, fall into the 'high risk' category, i.e. they are likely to suffer obstetric complications and give birth to offspring of low birth weight, especially in situations where antenatal care and obstetric services are below par.

These observations broadly indicate the magnitude of the unfinished tasks with respect to improvement of health and nutritional status of our women.

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Fig 1 Heights of Girls

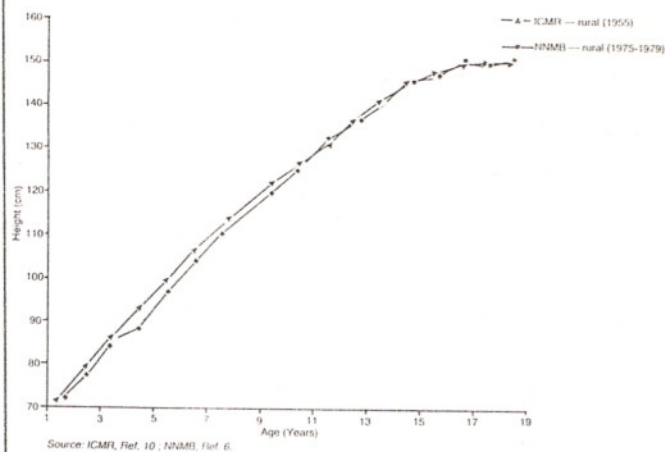
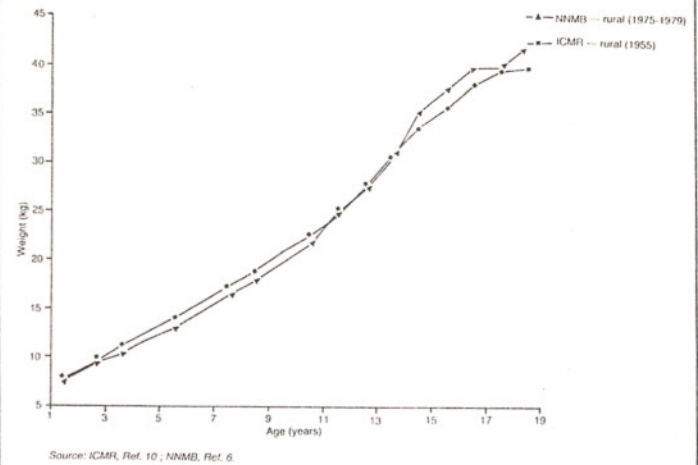


Fig 2 Weights of Girls



Age at Marriage

Even with the existing levels of poverty, a significant impact on maternal nutritional status and birth weights of offspring can be achieved through just bringing about a rise in the age at marriage of our rural girls. It will be seen from Table 1 (based on NNMB data) that

Table 1

Heights and Weights of Poor* and Affluent Girls at 14 Years and 18 Years**

Age (Years)	Height (cm)		Weight (kg)	
	Poor	Affluent	Poor	Affluent
14	145.9	156.6	35.1	47.4
18	150.9	158.9	41.9	50.9

* NNMB (rural) ** NFI study (SR. 10)

between their 14th and 18th years, girls in our countryside gain, on an average, 6.8 kg in their body weights and five cm in their heights. The period 14-18 years is thus a period of active growth for our rural girls. Indeed, a comparison of the NNMB data on girls of poor rural communities and the recent NFI data on girls of affluent communities in India⁶, would show that between 14 and 18 years, girls of poor rural communities, despite their poverty, actually gain more height and more weight than the affluent girls of our population, who gain on an average only 2.3 cm in height and 3.5 kg in weight during this period. This seeming paradox is attributable to the fact that menarche and consequently the adolescent growth spurt is delayed by almost one year in the case of poor rural girls.

Between 14 and 18 years, there is a significant degree of catch-up of growth levels of poor rural girls with those of the affluent girls. Thus the growth process continues for a longer time in the poorer groups than in the well-to-do. For this reason, it is even more important that conception is delayed till about the 18th year in the case of poor rural girls than in the case the affluent. Actually, however, it is the poor rural girls that are married off at a much younger age and have to start their reproductive career much earlier than the well-to-do.

The mean age at menarche in the rural girls of the country at present is about 14.0 years⁷. A very large percentage of our girls are pushed into marriage very early, the marriage being consummated almost immediately after menarche. Thus, a large portion of our rural girls embark on their arduous reproductive journey almost from their 14th year, and teenage pregnancies are the rule.

Table 2

Percentage of Rural Women* at Obstetric Risk at Different Ages

Ages	% below 38 kg	% below 145 cm
14 yrs	68	45
15 yrs	47	39
18 yrs	24	16

* NNMB (rural), 1980

The proportion of girls of poor communities who are at obstetric risk (as per the WHO criteria) at 14, 15, and 18 years of age is indicated in Table 2. These data will show the remarkable impact that raising the age at marriage could

have on maternal, foetal and infant nutrition even in the current context of poverty in our rural communities. Indeed, the data in Table 2 could probably underestimate the order of this impact. It must be remembered that in addition to the increased risk posed by their current immature body stature, there is also a crucial difference with respect to pregnancy as between a 15-year-old girl and an 18-year-old girl. In the latter case, there are two competing nutrient demands on the mother during pregnancy – the demand for repair and maintenance of her own tissues and the demand for foetal growth and development. In the case of the former, however, in addition to the above two demands, there is also the added competing nutrient demand of the mother for her own further growth which could be quite exacting and significant. It is not surprising for this reason that the incidence of low birth weight deliveries is significantly greater in young primipara.

The latest census figures based on a complete analysis of data show that the average age at marriage for girls in the country as a whole was 16.7 years in 1981³, but the figure could be misleading. In the "problem" states of Bihar, Rajasthan and Madhya Pradesh, the mean age at marriage according to the census data of 1981 was between 15.5 and 15.9 years. It was estimated that 25.2 percent of rural girls in Uttar Pradesh were married even before 14 years of age.

It is unlikely that this distressing problem of early marriage will be solved through legislation. This is very much a part of the picture of prevailing socio-economic underdevelopment and must

be addressed befittingly.

Antenatal Care

Today our antenatal services have not made the desired impact for the reason that our system of antenatal care is patterned on lines which may be appropriate and adequate for the affluent but not for the poor. At present a pregnant woman is contacted by the health services for antenatal care (if at all) only half way through her pregnancy. It may be remembered that the woman is already anaemic (in a high proportion of cases) and stunted and of low body weight even at the start of her pregnancy. In the interval of barely 12 weeks between the time of contact by the health system and the delivery of her baby, even with an efficient antenatal service, it will be extremely difficult to correct, to any significant degree, the fairly large pre-pregnancy deficits that she is already suffering from and, in addition, provide for her added demands of pregnancy. Thus, a stunted woman, who starts on her pregnancy with a body weight of 38 kg or less and a haemoglobin level below 8 g% is unlikely to achieve a body weight increase of more than 5-6 kg, and a haemoglobin level of 11 g% by the end of her pregnancy with the type of inputs which our health system is now able to provide. Clearly, therefore, the answer lies in ensuring that the opportunities provided by the precious years of adolescence are not wasted by our health system. Programmes at improving the health and nutritional status of girls during their adolescence and programmes such as regular supply of iron and folate tablets *right through adolescence* are necessary so that the girls can enter their pregnancy with no serious initial handicaps. In such a situation, even the type of antenatal care which alone is now possible in our health system may still prove adequate.

Family Planning

According to the Registrar General's Report (1984), 43.1 percent of all births in the country were accounted for by births in women less than 24 years of age and 69.5 percent in women less than 29 years old. Our family planning programmes which are largely directed to women over 30 years of age, thus, in effect, address barely less than a third of the problem – very much like bolting the door after the horse has escaped! It is

not surprising that flattering official claims regarding "couple protection" rates do not tally with the actual observed impact on birth rates. Obviously many couples who do not stand in need of "protection" are now being "protected" and serve to inflate official records. Claims that several million births have been "averted", again based on the numbers of sterilisations or vasectomies, suffer from obvious fallacies for the same reason.

These considerations underscore the imperative need for *sex education* to our teenage girls and the extension of a family planning programme – not terminal methods, but "a family planning education programme" designed to promote and propagate methods for spacing of births, including particularly contraceptive procedures not dependent on drugs or gadgets, such as the "periodic abstinence method" (safe period). Young married couples are more likely to accept contraceptive advice and limited use of contraceptive devices when they are made aware that such devices are not *always* necessary. It is amazing that while, under the advice of international agencies, we are prepared to undertake elaborate educational programmes to teach our rural women and girls the intricacies of growth charts and of plotting graphs, spending a lot of time and money in the process, we tacitly assume that our women are too "ignorant" to understand the significance of the "safe period". Evidently propagating knowledge of the safe period is not an attractive "commercial proposition"! A family planning education programme beamed to adolescent girls cannot be carried out in isolation. It can only be undertaken as part of a comprehensive programme of "education for better living" and vocational training, for our rural girls, of the type which I have been repeatedly advocating⁹.

Our family planning policy so far has been largely "technology-centred" rather than "people-centred". I had earlier strongly advocated alternative strategies⁹. I had pleaded for the introduction of such imaginative programmes as (1) "Delayed marriage bonus" – interest bearing bonds of Rs. 50 per month for a period of about six years (12 to 18 years) to girls of poor rural families cashable only after the attainment of 18 years of age, the bonds being not negotiable if the girl marries before attaining 18 years of age and (2) "Delayed maternity bonus" in the form of interest bear-

ing bonds of Rs.50 per month for three years, the bonds being cashable only in case the birth of the first child does not take place before she attains her 21st year of age. The total cost of a programme of this nature if it is selectively beamed to girls of poor rural communities will be a fraction of the cost now being incurred on our family planning operations which by all accounts have not been a shining success. Such a programme of "incentives" should be part of an integrated programme of "education for better living and vocational training" for our rural adolescent girls.

The Wasted Years of Adolescence

In our developmental programmes as they stand today, there are no special efforts specially beamed to adolescent girls. These girls, having generally dropped out of schools before their eighth or ninth year, are not reached by the School System; antenatal services start only after the onset of pregnancy. The intervening crucial years of adolescence between their dropping out from school and the onset of pregnancy, during which period much can be done by way of equipping the girls for better and more productive citizenship and safer and more competent motherhood, are truly wasted years — years of wasted opportunities. It is almost as though the parents of the girl are just waiting for menarche to arrive so that the girl could be immediately "trapped" in the marriage thereafter. This is the basic deficiency in our present social system which needs to be addressed, if significant improvement in the health and nutritional status of our women and children is to be achieved within the next 20 years.

I venture now to offer some concrete suggestions towards upliftment of health and nutrition status of women, especially of our poor communities.

Some Suggestions

(1) Health care of the people by the people: Some of the measures recently announced by the Government must be welcomed and should not be straight-away dismissed as populist, "pre-election" exercises. The efforts to decentralise planning and administration and to set up village panchayats, if faithfully implemented and not politicised, can certainly promote better community participation and involvement in health/nut-

rition and welfare programmes and can also ensure greater accountability. The logical follow-up of this proposal would be to set up autonomous village level mahila mandals (women's clubs) with adequate financial support and powers, entrusted with the responsibility for all health care and nutrition programmes at the village level. All village level employees, irrespective of the Ministry that had originally recruited them, must be deemed to be employees of the mahila mandal and must be answerable to it. District and block level welfare functionaries must interact with the mahila mandals and must provide them such necessary technical service and guidance as they may need. At present, there are no effective functional linkages between employees of different sectors operating at the village level. Indeed, very frequently, they work at cross purposes. This situation could be corrected through the arrangements discussed earlier.

(2) Setting up of village health brigades: Voluntary health brigades composed of young girls and boys in the village – somewhat like the Scout movement – could be encouraged. The recruits could be provided a general broad-based training; and from among these candidates, all recruitments to village level operations could be made with such further special training as may be necessary for the jobs to which they are being recruited. This move could help promote health-consciousness and self-reliance in the community.

(3) Employment generation: The proposal to generate employment for women in rural areas again holds out vast possibilities. However, if this effort is not to degenerate into a populist exercise, it is important that a meaningful shelf of productive works which could be effectively undertaken by the village women (and men) must be carefully identified. These works must include a number of health/welfare operations as well, which are within the competence of the village people to carry out after a period of training. This again implies careful village level planning and a well-defined and well-implemented training programme. It is one thing to create jobs on paper; it is quite another to find the people who are adequately qualified to do these jobs. We already have the distressing experience that in tribal areas and among scheduled castes, it has not

been possible to find girls with the requisite minimal educational qualifications who could be recruited as anganwadi workers, with the result that these qualifications had to be scaled down to the detriment of the efficiency and quality of the services. Ultimately, it is not through reservations or through putting a premium on backwardness and mediocrity, that we can expect to bring about true upliftment of women of poor communities. As important as creating jobs for women is the need to increase their *employability* through proper education and training.

(4) Women as rural school teachers: A good proportion of posts of teachers in rural schools can be reserved for rural women. This step will also help to bring about a better linkage of the rural school system with the community and better utilisation of the schools for the promotion of community welfare.

As I had mentioned earlier, the Nutrition Foundation of India had advocated a programme of "Education for better living and vocational training of rural adolescent girls"⁹. It is gratifying that this proposal has attracted wide attention and several programmes have been proposed on the lines of this proposal. A programme of this nature can help to generate the health brigade referred to earlier. It can also help to train candidates for specific jobs which are available. Indeed, with the announcement of the employment generation programme and the decision to reserve a proportion of the jobs for women, it will become even easier to organise a programme of vocational training for women directed to certain specific purposes.

The problems which beset women in our country are formidable, but there is no doubt that there has been a perceptible change in public opinion and in the political climate, with the result that these problems are now getting increasing attention. Specific programmes and proposals for combating the current disabilities of women, especially with respect to their health and nutrition, are being discussed more intensively today than ever before. It is to be hoped that the enthusiasm that is now being generated will lead to tangible results within the next two or three decades.

Excerpts from the author's introductory chapter in Women and Nutrition in India, Special Publications Series 5, NFI

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NUTRITION NEWS

The XIVth International Congress of Nutrition was held in Seoul from August 21 to 25, 1989. The Congress was attended by 2,800 delegates (2,200 from countries other than South Korea). There were 2,000 scientific papers, presented in six plenary lectures.

Developing countries, including India, were fairly well represented at the Congress. The organisational arrangements, both for the scientific programme and the cultural events, were good and highly appreciated.

There were six plenary lectures, 50 symposia, 30 free communications and 44 workshops.

Special Publication Series 5 has just been released. The book is priced at Rs. 200 in India and \$ 20 abroad (inclusive of postage).