

How gender (in)sensitive are the gender-related indices?

Sherin Varkey¹ & Subodh S Gupta¹

Introduction

A decade and a half has elapsed since publication of the first *Human development report* of the United Nations Development Programme (UNDP). The brainchild of Mahbub ul Haq, this ground-breaking report challenged the hegemony of development indices based on variables related to financial management and wealth. The report aimed to highlight the importance of bringing human needs, aspirations and capabilities to the forefront of all development efforts.

The human development index (HDI) captures achievements in basic areas of human wellbeing — leading a long life, being knowledgeable and enjoying a decent standard of living (1). The HDI provides a more comprehensive account of human life than do indices that focus solely on financial areas and treat income as a proxy for standard of living.

Despite initial skepticism about the ability of a crude index like the HDI to capture facets of human development and deprivation, the index has received wide attention. It has spawned new indices to measure various social, economic and political features that influence the nature and quality of human life. Prominent among these submeasurements are the gender-related indices.

Current measures of gender bias

Gaps in the availability of information on women's lives are now beginning to be filled. However, much remains to be done if the database for health-related policy-making is to be improved. In particular, there is a need for the development of appropriate indicators that combine biomedical, epidemiological and socioeconomic data to monitor the changing state of women's and men's health around the world. In the *Human development report 1995*, two composite measures that reflect gender inequalities in human development were introduced for the first time: the gender-related development index (GDI) and the gender empowerment measure (GEM).

While the GDI captures achievements in basic human development adjusted for gender inequality, the GEM gauges gender inequality in economic and political opportunities (2). These indices serve as important tools for understanding the broader issues that affect women's health and they have helped to map the progress made by countries in gender-related development.

A closer look at the GDI shows that it incorporates the same variables as the HDI. The difference, however, is that the GDI adjusts a country's average score for life expectancy, educational attainment and income, in accordance with the disparity in achievement between women and men. Both the GDI and

GEM aim to assess the bias experienced by girls and women in areas including access to educational services, income, and economic and political opportunities.

Missing women

The concept of "missing women," presented by Amartya Sen in 1992, refers to the terrible deficit of women in many parts of Asia and North Africa (3). Despite women being biologically predisposed to live longer than men, sex-specific abortions, infanticide, or systematic discrimination against women have decreased the ratio of women to men. Recent estimates are as high as 101 million missing women worldwide (4). None of the currently available gender-related development indices is able to capture this mortality bias in its complete form. The size and seriousness of this bias necessitate its inclusion in any meaningful gender-related study of development, although how best to do this remains unclear.

A 1995 critical review of the GDI and the GEM supported the need to develop indicators that reliably track women's empowerment (GEM) as well as the effect of gender inequality on overall human development (GDI) (5). However, the authors, Bardhan & Klasen, argued that the way in which the GDI and GEM were constructed and the assumptions made to overcome data gaps severely limit their usefulness and have resulted in very misleading results from comparisons between countries. Bardhan & Klasen suggested remedies for the shortcomings identified, some of which have led to modifications of methods for calculation of GDI in the UNDP 1999 *Human development report*.

Gender bias in mortality

Periodic rankings of countries by GDI have prompted governments to work towards the improvement of the component indicators of the index in their respective countries. But does a high GDI ranking necessarily indicate a low level of gender bias in mortality?

A comparison of the sex ratios of the countries belonging to the high and low GDI categories shows that the top five and bottom five countries by GDI ranking have similar sex ratios (in the total population) — i.e., ratios close to one (6, 7). This result reveals the inadequacy of the GDI in capturing the true picture of gender inequality. The comparison also shows that adverse sex ratios exist not only in developing countries, but also in countries with high HDI and GDI rankings.

Table 1 shows seven countries with the most adverse sex ratios, listed in descending order. Of the top five countries for which the HDI and GDI have been calculated, three (Bahrain,

¹ Department of Community Medicine, MGIMS, Sewagram, Wardha 442 102, India. Correspondence to Dr Varkey (email: varkey_sherin@rediffmail.com). Ref. No. 05-022103

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Kuwait, and United Arab Emirates) are in the High Human Development category, and two (Oman and Saudi Arabia) are in the Medium Human Development category. All five countries have quite good GDI rankings.

Gender bias in natality

During the past 15 years, any improvements in the disproportionately high mortality in women have been counterbalanced by another female disadvantage — that of lower birthrates (natality) for baby girls arising from sex-specific abortions of female fetuses. The availability of modern techniques to establish the sex of the fetus has made sex-selective abortion possible and easy, and it is being widely used in many societies (8).

“Sex ratio at birth” is a parameter that measures female disadvantage in natality. How do the countries fare in terms of sex ratio at birth with respect to their GDI ranking? Yet again the top five and bottom five countries by GDI ranking do not differ greatly in sex ratio at birth. Surprisingly, the sex ratio at birth in the bottom five countries is marginally better than that in the top five countries (6, 7, 9). The apparent disconnect demonstrates the inability of the currently available gender-related indices to capture the bias against female fetuses. This finding is further corroborated by the fact that even female education (one of the component indicators of the GDI), which is so effective in cutting down sex bias in mortality does not seem to have a similar effect in reducing sex bias in natality (as is readily seen from the deficit in Indian states with high education such as Gujarat, Himachal Pradesh, or Maharashtra, and countries such as China (including the Province of Taiwan), the Republic of Korea, or Singapore (10).

Table 2 shows a comparative summary of findings in Indian states with the worst sex ratios (both juvenile sex-ratio in children aged 0–6 years and the sex ratio in the total population). States in north-west India, such as Gujarat, Haryana, Himachal and Punjab, Pradesh have quite good life expectancy for women, a low gender gap in literacy and quite high levels of per capita consumption expenditure. Yet, they fare badly with respect to sex ratio. The juvenile sex-ratios reported are even more alarming and indicate a societal crisis in the future.

The fault line of gender

In recent decades, governments and international organizations have made women’s issues a priority. A range of policy initiatives have been implemented and resulted in many practical improvements in women’s lives. Women live longer than men, fertility rates have dropped, maternal mortality has fallen and female literacy rates have increased (2). There can be no argument that such advances have had important and positive effects on the daily lives of many women; yet, despite these improvements the basic position of women in society has hardly changed.

All societies are divided along what has been called the fault line of gender (11). It is a person’s gender that usually defines the opportunities, roles and responsibilities available to them. As well as being subject to direct and material discrimination, women are also affected by the “cultural devaluation of femaleness”, which may be expressed in various forms, such as violence against women or a strong preference for a son (11). The sex ratio of the total population, sex ratio at birth, and juvenile sex-ratio can all measure the relative importance

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or preference given to men and boys over women and girls in a society.

Experiences in countries like Bolivia have shown that the road to gender equity does not lie in a single reformist option, nor in an excluding feminist option (12). A middle path that takes into consideration the local sensitivities will probably be the best method to fight the cultural devaluation of femaleness.

Millennium Development Goals and gender bias

Since 2000, the Millennium Development Goals (MDGs) have become the yardstick for human development. The MDGs and the promotion of human development share a common motivation — to achieve dignity, freedom and equality for all people — and a vigorous commitment to human well-being. The world community is now recognizing that unless women’s access to opportunities are improved and gender equality increased, the other MDGs will not be achieved.

However, the goal to “promote gender equality and empower women” has education as the only official target — i.e., to “eliminate gender disparity in primary and secondary education, preferably by 2005, and in all levels of education by 2015”. The four indicators nominated to measure progress towards this target are as follows: the ratio of girls to boys in primary, secondary and tertiary education; the ratio of literate women to men, 15–24 years old; the proportion of women engaged in wage employment outside agriculture; and the proportion of women in national parliaments (6). The examples in Table 1 clearly show that these gender-related targets and indicators can be achieved in societies with an underlying and persistent preference for male children.

Conclusions

That the GDI has some shortfalls is now accepted. Some workers have already pointed out that it is too crude to pick up subtle inequalities between genders. Additionally, the implied penalty for gender inequality (a downward adjustment of HDI) remains heavily reliant on the earned income component, while gender gaps in life expectancy and education continue to make a small contribution to the overall HDI score (5).

Our intention is not to criticize the currently available gender-related development indices, as they do come close to doing the job they were designed for in view of their construction around variables for which data are available worldwide.

Table 1. HDI and GDI rankings of countries with the seven worst male-to-female sex ratios in descending order

Country	Male/female sex ratio (in total population)	HDI rank	GDI rank
Qatar	1.92	44	N/A ^a
Kuwait	1.52	46	45
United Arab Emirates	1.47	48	49
Samoa	1.39	70	N/A
Oman	1.28	79	71
Bahrain	1.28	37	40
Saudi Arabia	1.22	73	68

^a N/A = not available.

Table 2. Key gender-related findings and HDI in Indian states with worst male-to-female sex ratios

Indian states	Male/female juvenile sex ratio ^a (in population 0–6 years)	Male/female sex ratio ^a (total population)	Literacy rate ^a		Gender gap in literacy ^a	Life expectancy ^b (1992–96)		Per capita consumption expenditure ^c 1999–2000 (US\$)	HDI 2001 ^d
			Male	Female		Male	Female		
Punjab	1.26	1.14	76	64	1.2	66.4	68.6	792	0.537
Haryana	1.22	1.16	79	56	1.4	63.4	64.3	768	0.509
Gujarat	1.14	1.09	80	59	1.4	60.5	62.5	678	0.479
Himachal Pradesh	1.11	1.03	86	68	1.3	N/A ^e	N/A	738	N/A
Uttar Pradesh	1.09	1.11	70	43	1.6	57.7	56.4	517	0.388
Bihar	1.07	1.09	60	34	1.8	60.2	58.2	417	0.367
Jharkhand	1.04	1.06	68	39	1.7	N/A	N/A	N/A	N/A
Orissa	1.05	1.03	76	51	1.5	56.9	56.6	414	0.404
Madhya Pradesh	1.08	1.09	77	50	1.5	55.1	54.7	479	0.394
Chhattisgarh	1.03	1.01	78	52	1.5	N/A ^e	N/A ^e	N/A ^e	N/A ^e
Rajasthan	1.10	1.08	76	44	1.7	58.6	59.6	611	0.424

^a Data from Census of India, 2001.

^b Data from Sample Registration System for Life Expectancy, India (1992–96).

^c National sample survey, India (1999–2000).

^d National *Human development report*, India (2001).

^e N/A = not available.

Rather, we wish to draw attention to the importance of including adverse sex-ratios in gender-related development measurements. These expanded measurements would more adequately reflect a society's attitudes towards the female sex.

Many reasons can be given for the non-inclusion of sex ratios in development indices. It has been only in the past 20 years that the attention of the media, the public and governments has been drawn towards the dwindling number of girls and women in some societies. Population surveys like censuses and the Demographic Health Surveys have recently begun to look more closely at this issue. An adverse sex-ratio has become a very important societal concern in many countries;

therefore, its inclusion as part of a periodically measured and published development indicator will go a long way towards adding impetus to the efforts made by the governments in these countries.

The question to be answered by researchers, economists, planners and policy-makers is: should sex ratio should be included as a measure of gender equality, in the broader context of human development? Or would its inclusion merely be a periodic statistical exercise undertaken to whet the appetite of demographers? ■

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