PRINT: ISSN 0970-9274 ONLINE: 2456-6608
J. Hum. Ecol., 14(2): 141-147 (2003)
DOI: 10.31901/24566608.2003/14.02.11

The Scenario of Regional Variation in Reproductive Risk in Some Selected Countries of Asia

Dibya Lochan Mohanta

INTRODUCTION

The Cairo International conference on Population and Development (ICPD) in September 1994 announced a significant change of paradigm in the topic of population and development. Rather than focussing on number of people and demographic targets, goals of development are assumed to reach only if policy and activities emphasize the rights, needs and ambitions of individual men and women. The conference's Action Programme emphasizes the rights of couples and individuals to decide freely and responsibly whether to have children, when to have them and how many to have. It stresses enlargement of the options to choose between and broadening of the package of services and Information, Education and Communication (IEC) activities. The concept of reproductive health occupies a central place in this respect.

Reproductive health has been defined as "the ability of women to pass through the reproductive years and beyond with reproductive choice, dignity and successful child bearing and to be free of gynaecological disease and risk" (Zyrayck, 1994), and implies that people have the ability 'to reproduce that women can go through pregnancy and child birth safely, and that reproduction is carried out to a successful outcome, i.e., infants should survive and grow up healthy. It implies further that people are able to regulate their fertility without risks to their health and that they are safe in having sex' (WHO, 1992).

Reproductive health thus refers to topic like fertility planning, the causes and consequences of unwanted pregnancies (unwanted need for contraceptives, induced abortions), the prevention of sexually transmitted diseases (STDs, AIDS), infertility, sexual health (including e.g. a topic such as female circumcision), child survival and safe motherhood special attention devoted to teen-age pregnancies (WHO, 1992).

The reproductive health framework thus goes beyond the narrow confines of family planning to encompass all aspects of human sexuality and stages of women's live (Sai and Nasim, 1989).

The concept of reproductive health marks the shift to women's health for its own sake rather than as an instrument to improve child survival (Dixon-Muller, 1993). The concept also marks a shift towards a more holistic approach (Obermeyer, 1995): reproductive health is determined by social and economic development, by life styles, by quality and accessibility of health services and by the status of women, but 'more than anything else, by the freedom to make choices' (UNFPA, 1995).

Summarizing, the definition of reproductive health as adopted in Cairo 1994 thus refers to the focus on needs and ambitions of individuals, on reproductive choice, and on a more holistic approach to reproductive health, i.e., individual reproductive behaviour is embedded in the economic, social and cultural context.

The past century witnessed dramatic improvement in reproductive health, especially in the developed countries. Near-universal access to high quality care in pregnancy and childbirth and to life-saving drugs and safe surgerical procedures-including safe abortion-coupled with high levels of contraceptive use and low fertility, all contributed to good reproductive health. In developed countries, one woman in 2,125 dies during pregnancy or child-birth over the course of lifetime. The situation is quite different in the developing countries where a women's "lifetime risk" of death from maternal causes is 1 in 65, fully 33 times that of her developed country counterpart.

Reproductive Risk Index (RRI): Composed of 10 key indicators of reproductive health. The study documents the poor state of sexual and reproductive health in much of the developing world and the urgent need to accelerate with sexual activity and child bearing vary tremend-ously from country to country, there by reflecting differences in public health policies, income levels, and social and cultural practices affecting access to health care.

Reproductive health risks are interrelated, and so are the interventions needed to address them. Comprehensive reproductive health services, especially care during pregnancy and childbirth and services preventing sexually transmitted infections, are key to preventing unnecessary deaths and improving women's health. Better access to safe, effective and affordable contraceptive methods enables women and men to exercise choice over child bearing and have smaller families as many of them desire. Use of family planning methods also diminishes risks associated with frequent child bearing and prevents reduce reliance on abortion.

In the face of the AIDS, pandemic and the spread of other STIs, the necessity to inform the public and promote condom use are critical. The threat of HIV/AIDS has also heightened the importance of programmes that help women and men especially young people-strengthen their communications and negotiating skills. For young people, successful strategies also stress comprehensive sexual education, encourage delay of first intercourse, and provide access to a range of contraceptive options for the sexually active. Finally, expanding the life choices available to women- in both education and the labour force can also help improve women's social and economic status. This enables women to have access to better health care and reinforces health strategies that help women and men enjoy their sexuality, achieve their desired family size, and avoid illness, disability and death.

OBJECTIVE

The main objective of this paper is to see the regional disparity in the status of reproductive risk among some of the Asian countries. Other specific objective of this paper is to see the status of different Asian countries with reference to certain reproductive health indicators like:

1. Annual births per 100 women aged 15-19.
2. Women using contraception (%).
3. Nature of Abortion Policies available in the respective country.
4. Prevalence of anaemia among the pregnant women
5. Women receiving prenatal care (%).
6. Birth attended by skilled personnel (%).
7. Level of HIV/AIDS in men (%).
8. Level of HIV/AIDS in women (%).
9. Average births per women (TFR)
10. Maternal deaths per 1,00,000 live births.

METHODOLOGY AND SOURCE OF DATA

The data for this paper has been taken from the PAI Report Card 2001 (Population Action International). The methodology has also adopted from the PAI Report card 2001.

KEY TO RANKINGS

Indicators used for the Reproductive Risk Index are each scored on a 100-point scale, and the indicator scores averaged to yield a total country score on the Index. Based on their overall scores, countries are classified according to their risk levels.

Very High Risk (60 Points or More): In almost all the countries in this category, more than one in ten adolescent girls give birth each year and women have an average of more than five children. Such early and high fertility, together with limited care, during pregnancy and childbirth, contributes to extremely high levels of maternal mortality. On an average, women in these countries are 99 times more likely to die during pregnancy and childbirth than is a women in the very low risk countries. Safe and legal abortion is all but unavailable and, with few exceptions, levels of HIV infection are significant. All the countries in this category have low average incomes.

High Risk (45 – 59 Points): These countries have low levels of contraceptive use, restrictive abortion policies, high birth rates, and high maternal mortality. However, risk factors vary somewhat more widely than the very high risk Countries. Contraceptive use is relatively high in a few countries, for example, while abortion is available essentially on request in a few others; HIV prevalence varies widely.

Moderate Risk (30 – 44 Points): Where teen birth rates vary widely among these countries in this category, women have, on an average, fewer than five children. Care during pregnancy and childbirth is significantly more common than in high-risk countries. However, women in these countries are still 28 times more likely to die from maternal causes than are women in countries classified as low risk countries. Obtaining a safe

Table 1: Level of different reproductive risk variables and reproductive risk index in different countries of Asia

Asian Countries	*Annual births per 100 women aged 15-19*	*Women using contra-e cption (%)*	*Abort--on poli-cies**	*Prevlence of Anaemia among pregnant women***	*Women receiving prenatal care (%)*	*Births attended by skilled personnel (%)*	*Level of HIV/AID S in men (%)*	*Level of HIV/AID S in women (%)*	*Average Births per women (TFR)*	*Maternal deaths per 1,00,000 live births*	*Reprod-ctive Risk index*
	1	2	3	4	5	6	7	8	9	10	11
West Asia											
Yemen	10.2	21	E	Very High	35	43	0.0	0.0	6.7	1400	58.2
Iraq	4.5	14	C	Very High	59	54	0.0	0.0	5.3	310	47.1
Syria	4.4	40	E	High	54	77	0.0	0.0	4.2	180	41.4
Oman	8.0	24	E	Very High	98	91	0.2	0.0	7.1	190	40.7
Lebanon	2.6	61	E	Very High	87	89	0.1	0.0	2.4	300	33.2
Saudi Arabia	11.3	32	C	Medium	87	90	0.0	0.0	5.7	130	31.3
United Arab Emirates	7.3	28	E	Medium	97	99	0.2	0.1	4.9	26	31.3
Turkey	4.4	64	A	Very High	62	76	0.0	0.0	2.6	180	27.9
Jordan	4.3	53	C	High	96	97	0.0	0.0	4.4	150	26.8
Georgia	4.7	17	A	-	95	95	0.0	0.0	1.9	33	19.8
Armenia	4.1	22	A	-	95	95	0.1	0.0	1.7	50	19.3
Azerbaijan	1.7	17	A	-	95	99	0.0	0.0	2.0	22	19.3
Israel	1.9	-	C	Medium	90	99	0.1	0.0	2.7	7	16.6
South Central Asia											
Afghanistan	15.3	2	E	Very High	8	8	0.0	0.0	6.6	1700	69.1
Nepal	12.0	29	E	Very High	24	9	0.4	0.2	4.6	1500	62.2
Bhutan	7.1	19	E	Very High	51	12	0.0	0.0	5.3	1600	56.7
Pakistan	9.0	18	C	High	27	18	0.2	0.0	5.6	340	52.7
Bangladesh	11.5	49	B	Very High	26	8	0.0	0.0	3.3	850	50.8
India	11.2	41	B	Very High	62	35	0.8	0.5	3.4	570	44.8
Iran	2.9	73	E	Medium	62	74	0.0	0.0	2.6	120	32.4
Srilanka	2.0	66	E	Very High	100	94	0.1	0.0	2.1	140	28.4
Tajikistan	3.5	31	A	High	90	92	0.0	0.0	3.9	130	27.3
Kyrgyz Stan	4.0	60	A	Very High	97	98	0.0	0.0	3.4	110	23.6
Turkmenistan	2.0	20	A	-	90	90	0.0	0.0	3.4	55	23.5
Kazakhstan	5.4	66	A	Low	93	99	0.1	0.0	2.1	80	16.7
Southeast Asia											
Laos	10.4	19	E	Very High	25	30	0.1	0.1	5.5	650	59.9
Cambodia	1.4	13	A	Medium	42	31	5.5	2.6	4.8	900	45.3
Indonesia	5.8	57	E	High	82	36	0.1	0.0	2.8	650	42.4
Myanmar	2.6	33	E	High	80	57	2.5	1.4	2.8	580	40.9
Philippines	4.3	47	E	High	83	53	0.1	0.1	3.7	280	40.2
Thailand	7.0	72	C	Low	77	71	2.4	1.7	1.8	200	26.4
Vietnam	2.7	75	A	Very High	78	79	0.4	0.1	2.7	160	25.4
Malaysia	2.5	48	C	Medium	90	98	0.7	0.1	3.1	80	24.5
Singapore	0.7	74	A	Low	100	100	0.3	0.1	1.5	10	7.1
East Asia											
Mongolia	4.7	61	A	High	90	99	0.0	0.0	3.1	65	21.7
South Korea	0.4	79	C	Very High	96	95	0.0	0.0	1.7	130	20.4
North Korea	0.2	62	A	Very High	100	100	0.0	0.0	2.0	70	17.9
China	0.5	84	A	Medium	79	85	0.1	0.0	1.9	95	16.7
Japan	0.4	59	B	Medium	99	100	0.0	0.0	1.4	18	12.1

Source: The PAI REPORT CARD, 2001.

*Abortion Policies
A=Available on request
B=Permitted on broad social and health grounds
C=Permitted on limited health grounds
D=Permitted only for special cases (Rape, Incest, to save a woman's life)
E=Illegal or permitted only to save a woman's life

**Prevalence of Iron deficiency anaemia among pregnant women:
Low prevalence = Less than 20%
Medium Prevalence = 20% - 39%
High Prevalence = 40% - 59%
Very High Prevalence = 60% and above
(A haemoglobin level of less than 110g/l at sea level in an adult pregnant woman is indicative of anaemia)
(-) Indicates no data available

and legal abortion is difficult or impossible in most countries in this category. All these countries are developing countries.

Low risk (15 – 29 Points): In these countries, less than 1 in 20 teenage girls give birth annually and women have, on an average, fewer than three children. While almost all women receive care pregnancy and childbirth, they are still five times more likely to die from maternal causes, on aver-age, than women in the very low risk countries. Abortion is available on request in many of these countries. HIV prevalence is below 1 percent of adults in all but one of the countries in this cate-gory.

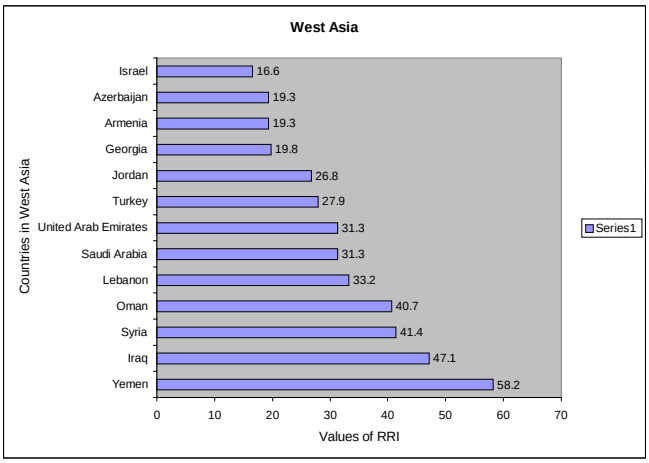

Fig. 1. The scenario of reproductive risk index among the women of West Asian countries.

Very Low risk (Less than 15 Points): Women in these countries bear, on an average, two or fewer children. In all countries, the contraceptive use is high, while anaemia among pregnant women, HIV prevalence and deaths from pregnancy and childbirth are all low. Abortion is available on request in nearly all countries in this category. All the countries in this category are wealthy and industrialized countries.

DISCUSSION

West Asia

By having a close look on the table, we find that, in Western Asia there is no country, which is coming under very high-risk category. But at the same time the country like Yemen, which is falling under high-risk category is closer to the cut off point of very high-risk category with 58.2 RRI points. In this country the maternal mortality rate is also very high i.e., 1400 per 1,00,000 live births and also the average births per women (TFR) is very high as compared to other countries in this geographical region, which is 6.7 per women. Similarly, the other country, which is falling in the category of high risk, is Iraq with 47.1 RRI points. The other countries like Syria, Oman, Lebanon, Saudi Arabia, and United Arab Emirates are coming under the category of moderate group with 41.4, 40.7, 33.2, 31.3 and 31.3 RRI points, respectively. Unlike the above countries if we consider the rest of the countries, they are falling in the category of low. These countries are namely, Turkey, Jordan, Georgia, Armenia, Azerbaijan and Israel with 27.9, 26.8, 19.8, 19.3, 19.3 and 16.6 RRI points, respectively. It has also been observed in these countries that the prevalence of anaemia among the pregnant women are falling in the category of high to very high except Israel where it is coming in the category of medium. It has also been found that the women receiving prenatal care are varying widely with least at Yemen (35 percent) to maximum at Oman (98 percent). Similarly, if we look at the women using contraception, we will find a wide range of variation starting from 14 percent at Iraq to 64 percent at Turkey. Similarly, if we consider the annual births per 100 women aged 15 – 19, then we find it is highly prevalent in the countries like Saudi Arabia (11.3) and Yemen (10.2) and least prevalent among the countries like Azerbaijan (1.7), Israel (1.9) and Lebanon (2.6).

South-Central Asia

If we look at the South Central Asia region we find that two countries namely Afghanistan and Nepal are coming in the category of very high risk with 69.1 and 62.2 RRI points respectively. Similarly the countries like Bhutan, Pakistan and Bangladesh are coming in the category of high-risk category with 56.7, 52.7, and 50.8 RRI points respectively. The countries like India and Iran are falling under the category of moderate reproductive risk group with 44.8 and 32.4 RRI points

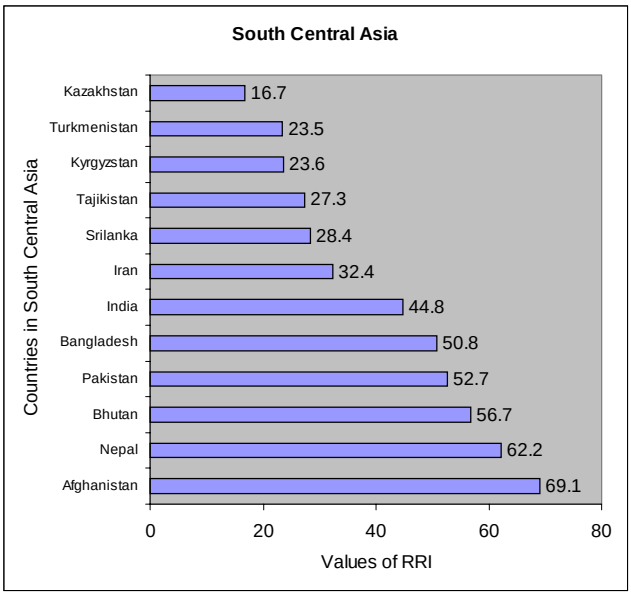

Fig. 2. The scenario of reproductive risk index among the women of South-Central Asian countries

respectively. Similarly, the countries like Srilanka, Tajikistan, Kyrgyz Stan, Turkmenistan and Kazakhstan are falling in the category of low reproductive risk group with 28.4, 27.3, 23.6, 23.5 and 16.7 RRI points respectively. Unlike the RRI if we look at the indicator maternal deaths per 1,00,000 live births; we find a wide range from very least at Kazakhstan i.e., 80 to highest at Afghanistan i.e., 1700 and subsequently followed by Bhutan (1600) and by Nepal (1500). Similarly, if we consider the indicator average births per women (TFR), we find, highest that it is an Afghanistan i.e., 6.6 per woman and lowest at Srilanka and Kazakhstan i.e., 2.1 per women. If we consider the births attended by skilled personnel, then also we find it varies from 8 to 99 percent in these countries. The maximum coverage is found in the countries like Kazakhstan (99 percent), Kyrgyz Stan (98 percent), Srilanka (94 percent), Tajikistan (92 percent) and in Turkmenistan (90 percent). Similarly the lowest coverage is found among the countries like Afghanistan (8 percent) followed by Nepal (24 percent). Similarly, except Kazakhstan and Iran, the prevalence of anaemia among pregnant women is found high to very high among these countries. The contraceptive use among the women is also range very widely from 2 percent to 66 percent. The use of contra-ception among women is found very low i.e., 2 percent in Afghanistan following Bhutan (19 percent) and Turkmenistan (20 percent) and found highest among the women of Iran (73 percent) following Srilanka (66 percent), Kazakhstan (66 percent) and Kyrgyz Stan (60 percent). Similarly, the annual births per 100 women aged 15-19 is found highest in Afghanistan i.e., 15.3 followed by Nepal i.e., 12.0 and lowest at Turkmenistan and Srilanka i.e., 2.0 followed by Iran i.e., 2.9.

Southeast Asia

In South-East Asia there is no country, which is coming under very high-risk category. At the same time country like Laos, which is falling under high-risk category is closer to the cut off point of very high-risk category i.e. 59.9 RRI points. In this country also the maternal mortality rate is second highest in this region i.e., 650 per 1,00,000 live births as compared to other countries of this region and also the average births per women (TFR) is very high i.e., 5.5 per women. Similarly, the other country, which is falling in the category of high risk, is Cambodia, with 45.3 RRI points. In this country highest maternal mortality is found as compared to other countries of this region i.e., 900 per 1,00,000 live births and average births per women (TFR) is 4.8 per women. The countries like; Indonesia, Myanmar and Philippines of this region are falling in the category of moderate reproductive risk category with 42.4, 40.9 and 40.2 RRI points, respectively. Similarly, countries like Thailand, Vietnam and Malaysia are coming in the category of low reproductive risk category with 26.4, 25.4 and 24.5 RRI points, respectively. Singapore is the only country in this region, whi-ch is falling in the category of very low reprodu-ctive risk with 7.1 RRI points. This country is also experiencing very low maternal mortality rate i.e., 10 per 1,00,000 live births and where all the women are receiving prenatal care and where ski-lled personnel attend all the births. The prevalence of anaemia among pregnant women is also very low and the average births per women (TFR) is very low i.e., 1.5 per

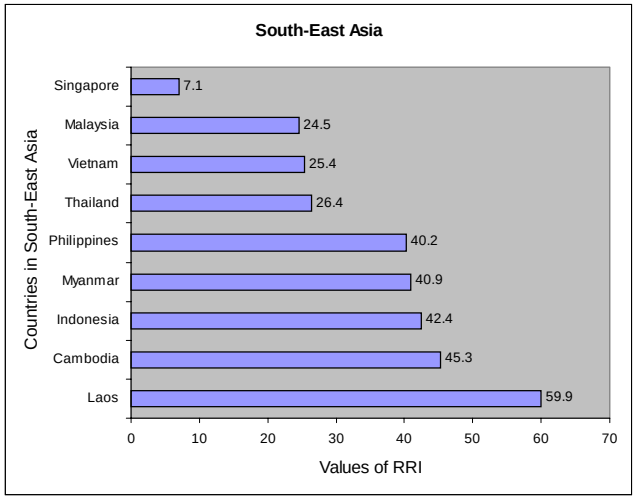

Fig. 3. The scenario of reproductive risk index among the women of Southeast Asian countries.

women. The annual births per 100 women aged 15-19 is also very low i.e., 0.7 and maximum percentage of women are using the contraceptive method i.e., 74 percent. If we see the anaemic condition of the women of this region we find, except the countries like Singapore and Malaysia, in all other countries there is a high prevalence of anaemia among pregnant women which is ranging from medium to very high. The average birth per women is also varying from least in Singapore (1.5 per women) followed by Thailand (1.8 per women) to highest in Laos (5.5 per women) followed by Cambodia (4.8 per women). Similarly, the women in the countries like; Cambodia, Myanmar and Thailand have a greater threat from their male counterparts as they are more infected with HIV/AIDS i.e., 5.5, 2.5 and 2.4 percent, res-pectively. Women of these countries are also more prone to HIV/AIDS as it is prevailing 2.6, 1.4 and 1.7 among the women of these countries namely Cambodia, Myanmar and Thailand, respectively. Least percentage of women in Laos is receiving prenatal care, which consist 25 percent of the total pregnant mothers. Quite a substantial percentage of women in the countries like; Vietnam, Singapore, Thailand and Indonesia are using contraception for birth control which constitutes 75, 74, 72, and 57 percent, respectively. An annual birth per 100 women 15-19 is found very high in Laos i.e., 10.4.

East Asia

The situation in East Asia as compared to other region is quite good. Except Japan all other countries are falling in the category of low reproductive risk. The countries like Mongolia, South Korea, North Korea and China are falling in the low reproductive risk category with 21.7, 20.4, 17.9 and 16.7 RRI points. Japan is coming in the cate-gory of very low reproductive risk category with 12.1 RRI points. If we look at the maternal deaths per 1,00,000 live births, we find very less number of women are really prone to maternal deaths, which varies from least at Japan i.e., 18 and maxi-mum at South Korea i.e., 130 per 1,00,000 live births. Similarly, if we look at the average births per women we find, except Mongolia, which is 3.1 per women, all other countries are fall at the below replacement level i.e., 1.4 at Japan, 1.7 at South Korea, 1.9 at China and 2.0 per women at North Korea. Women of these countries are also not at all exposed to the HIV/AIDS disease except

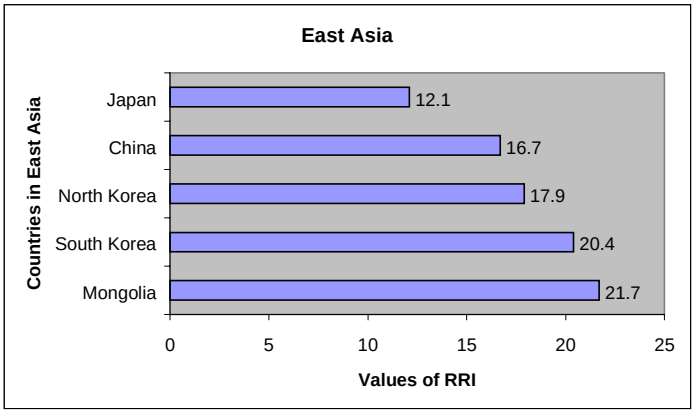

Fig. 4. The scenario of reproductive risk index among the wozzmen of East Asian countries.

China, where only negligible percent of its males are affected with HIV/AIDS i.e., 0.1 percent. The birth attended by skilled personnel also varies widely. It is least in China i.e., 85 percent and highest in North Korea and Japan where almost all births are attended by the skilled personnel. Similarly in case of women receiving prenatal care except for China, in all other countries, more than nine-tenths of all women are receiving the prenatal care. Even though, all other indicators are showing the good results, the prevalence of anaemia condition among women are varying from medium to very high category. If we observe, we also find that in this region the abortion policy is also very moderate as compared to rest of the region. The use of contraceptive methods among the women is also very high in this region. It was found that 84 percent of the Chinese women are using contraceptive method for birth control followed by 79 percent in case of South Korean women. The annual birth per 100 women aged 15-19 is also very low in this region except Mongolia, which is 4.7 per 100 women.

Overall Findings

If we look at the table, we find that the East Asia region is quite favourable for women where the reproductive risk among women is found very low. Similarly, all other states show a mix pattern of reproductive risk among the countries. It has been found that this index is quite sensitive to the government policies, plans and programmes related with the health in the corresponding country.

KEY WORDS Reproductive Health. Reproductive Risk. Maternal Death. Asia

ABSTRACT Reproductive health refers to topic like fertility planning, the causes and consequences of unwanted pregnancies (unwanted need for contraceptives, induced abortions), the prevention of sexually transmitted diseases (STDs, AIDS), infertility, sexual health, child survival and safe motherhood special attention devoted to teen-age pregnancies (WHO, 1992). Here an attempt has been made to look at the regional disparity in the status of reproductive health and their risk among the women of different countries of Asian continent. For the pupose of this study different reproductive health indicators like; (1) Annual births per 100 women aged 15-19, (2) Women using contraception (%), (3) Nature of Abortion Policies available in the respective country, (4) Prevalence of anaemia among the pregnant women, (5) Percent of women receiving prenatal care, (6) Percent of birth attended by skilled personnel, (7) Percent of HIV/AIDS among men, (8) Percent of HIV/AIDS among women, (9) Average births per women (TFR) and (10) Maternal deaths per 1,00,000 live births were taken into consideration. The study founds that the overall reproductive health of the East Asian region's women are better than the other regions of this continent. Other regions show a mix pattern of reproductive risk among their women. The Reproductive Risk Index also found quite sensitive to the government policies, plans and programmes related with the health in the corresponding country.

REFERENCES

Bicego, G.T. and Boerma, J.T.: Maternal education and child survival; a comparative analysis of DHS data. In: *Preceding of the Demographic and Health Surveys World Conference,* August 5-7, Washington DC, Vol. I, pp.177-204 (1991).

Dixon-Mueller, R.: *Population Policy and Women's Rights,* Praeger, London, (1993).

European Commission and UNFPA: *Implementation guidelines for the EC/UNFPA Initiative for Reproductive Health in Asia,* Brussels (1997).

Feachem, R.G., Graham, W.J. and Timaeus, I.M.: Identifying health problems and health research priorities in developing countries, *Journal of Tropical Medicine and Hygiene* **92:** 133-1991(1988).

Population Action International (PAI): *The PAI Report Card,* 1300 19th Street, NW, Second Floor, Washington, DC 20016 USA (2001).

Sai, F. and J.Nasim: The need for a reproductive health approach, *International Journal of Gynaecology and Obsterics,* **Suppl. 3:** 103-113 (1989).

UNFPA: *UNFPA and Adolescents,* United Nations Populations Fund, New York (1997).

World Health Organization (WHO): *The World Health Report, Bridging the Gaps,* WHO, Geneva (1995).

World Health Organization (WHO): *Maternal Mortality; A Global Fact Book.* WHO, Geneva (1991).

World Health Organization (WHO): *Reproductive Health: A Key to a Brighter Future,* Biennial Report 1990 – 1991, WHO, Geneva (1992).

Zurayck, H: Population and Health, *International Conference on Population and Development (ICPD 1994),* IUSSP, Liege (1994).

Author's Address: **Dibya Lochan Mohanta,** International Institute for Population Sciences, Govandi Station Road, Deonar, Mumbai 400 088, Maharashtra, India
E-mail: dibya@email.com