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## Socio-economic Development, Population Policies, and Fertility Decline in Muslim Countries

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### INTRODUCTION

As societies transform from a predominantly traditional to a predominantly modern system, they tend to experience considerable demographic changes. Coale (1984) notes that this “transformation is the substitution of slow growth achieved with low fertility and mortality for slow growth maintained with relatively high fertility and mortality rates”. Demographic transition in Muslim countries is a fairly late phenomenon as discussed in the next section. Most of these countries have followed a similar trend as by many other developing countries.

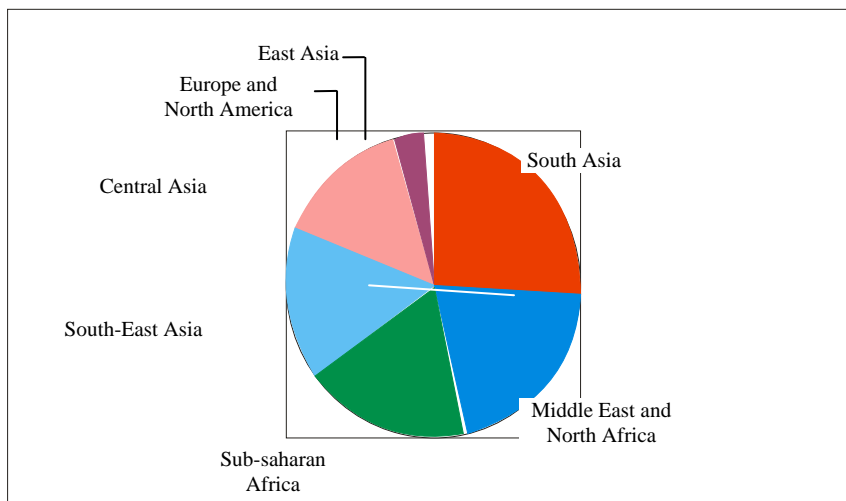
According to the most recent estimate provided by *The Economist* [September (2003)], the number of Muslims was 1.5 billion in 2003, of which about 97 percent were living in Asian and African countries. About one fourth were concentrated in South Asia and another one-fifth in the Middle-East and North Africa (Arab countries). Figure 1 provides the breakdown of Muslim population living in different regions of the World. Percentage of population in major Muslim countries and their estimated number at the beginning of the 21st Century are given in Table 1. Of 47 Muslim-majority countries, where more than 50 percent of the total population is reported to be followers of Islam,<sup>1</sup> 36 have populations that are more than 85 percent Muslims, while only seven of them contain less than 70 percent Muslims. However, the six largest Muslim-majority countries (in order, Indonesia, Pakistan, Bangladesh, Iran, Turkey and Egypt) contain about two-thirds of the

**Fig. 1. Distribution of Muslim Population by Region.**

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*Author's Note:* Some of the conclusions drawn in this paper are based on chapters in a book on Gavin Jones and Mehtab S. Karim (eds.) (2005) *Islam, the State and Population Policies*. London: Hearst and Co.

<sup>1</sup>Besides, there are four countries which are on the borderline where the percentage of Muslims is close to half. These include Eritrea (48 percent), Kazakhstan (47 percent), Nigeria<sup>1</sup> (43 percent) and Bosnia (40 percent).



Source: *The Economist* (September, 2003).

Data for Figure 1: Percent of Population in:

South Asia: (26.1 percent), Middle-East and North Africa (20.5 percent), Sub-Saharan Africa (18.3 percent), South-East Asia (16.3 percent), Central Asia (14.3 percent), East Asia (1.0 percent).

worlds' Muslim population. In 2001, the total Muslim population living in the Muslim-majority countries was about one billion.<sup>2</sup> If we add to this the additional about 300 million Muslims living in countries where they are numerous though not in a majority, the number of Muslims in the world in 2001 was over 1.3 billion. In other countries where Muslims constitute a noticeable minority is India, where in 2001 they numbered about 123 million and in Nigeria there are over 50 million Muslims. In several countries the number of Muslims is substantially high, which include China (19.3 million); Ethiopia (19.4 million); Russian Federation (14.5 million); Tanzania (14.5 million) and Mozambique (5.2 million). In addition, an estimated 15 million Muslims also live in several European countries and about 7 million in North America.

In subsequent sections of this paper only the Muslim-majority countries are discussed. However, due to the lack of data for most of the demographic, socio-economic and health characteristics for a few countries with smaller population (e.g. Gaza, Mayotte and West Sahara), where Muslims constitute over 98 percent of the population, have been excluded.

<sup>2</sup>Due to the comparative nature of this paper, the main data sources for the figures presented here are taken from the published reports of the United Nations, World Health Organisation, the World Bank as well as the Population Reference Bureau Data Sheets for the recent years. Although, these are the standard sources of data for basic demographic measures, it has been long accepted that the indicators expressed in these publications may not always resemble the accurate figures for the countries.

Table 1  
Total Population and Percent Muslims in Muslim-majority Countries 2001<sup>1</sup>

Region /Country	Population (Millions)	Percent Muslim	Estimated Muslim		Region /Country	Population (Millions)	Percent Muslim	Estimated Muslim Population (in Million)
			Population (in Million)	Population (in Million)				
<b>Eastern Africa</b>				<b>South Central Asia</b>				
Somalia	9.2	99.9	9.2		Maldives	0.3	100.0	0.3
Comoro	0.7	99.3	0.7		Iran	71.4	99.5	71.0
Mayotte	N.A	98.0	N.A		Afghanistan	22.5	99.0	22.3
Djibouti	0.6	97.2	0.6		Pakistan	145.0	95.0	137.8
					Bangladesh	140.4	88.3	124.0
					Uzbekistan	25.3	88.0	22.3
<b>Northern Africa</b>					Turkmenistan	4.8	87.0	4.2
West Sahara	0.3	100.0	0.3		Tajikistan	6.1	85.0	5.2
Algeria	30.9	99.9	30.9		Kyrgyzstan	5.0	70.0	3.5
Morocco	30.4	99.8	30.3					
Tunisia	9.6	99.5	9.6		<b>Western Asia</b>			
Libya	5.4	97.0	5.2		Yemen	19.1	99.9	19.1
Egypt	69.1	90.0	62.2		Turkey	67.6	99.8	67.5
Sudan	31.8	72.0	22.9		Gaza <sup>2</sup>	N.A	98.0	N.A
					Iraq	23.6	97.0	22.9
<b>Western Africa</b>					Saudi Arabia	21.0	96.6	20.3
Mauritania	2.7	99.5	2.7		Jordan	5.1	96.5	4.9
Gambia	1.3	95.0	1.2		UAE	2.7	96.0	2.6
Senegal	9.7	92.0	8.9		Qatar	0.6	95.0	0.6
Mali	11.7	90.0	10.5		Azerbaijan	8.1	93.4	7.6
Niger	11.2	88.7	9.9		Oman	2.6	87.7	2.3
Guinea	8.3	69.0	5.7		Syria	16.6	86.0	14.3
Sierra Leone	4.6	60.0	2.8		Kuwait	2.0	85.0	1.7
Chad	8.1	53.9	4.4		Bahrain	0.7	81.8	0.6
Burkina Faso	11.9	50.0	6.0		Lebanon	3.6	55.3	2.0
					<b>Europe</b>			
<b>Southeast Asia</b>					Albania	3.1	70.0	2.2
Indonesia	214.9	87.2	187.4					
Brunei	0.3	67.2	0.2		<b>Total</b>	<b>1092.4</b>	–	<b>984.0</b>
Malaysia <sup>3</sup>	22.6	60.0	13.6		<b>in countries with less than 50% Muslims</b>			<b>298.5</b>
					<b>Total Muslims</b>			<b>1282.5</b>

Source: Population Environment and Development 2001 (Data Sheet). UN, Population Division, Department of Economics and Social Affairs.

Notes: <sup>1</sup> % Muslims were obtained from Encyclopaedia Britannica unless otherwise indicated.

<sup>2</sup> % Muslims were obtained from Weeks (1988).

<sup>3</sup> Malaysia Census.

## **DEMOGRAPHIC TRANSITION IN MUSLIM-MAJORITY COUNTRIES**

Table 2 summarises demographic transition (declines in crude birth and death rates) during the last three decades in Muslim-majority countries. With the exception of Western Africa, in most regions where Muslim countries constitute a majority, there has been a major decline in both the demographic indicators. Within each region however, there have been noticeable exceptions. For example, the crude birth rates (CBR) remained at the pre-transition level in three countries which have experienced continued civil strife (Somalia in Eastern Africa; Afghanistan in South-Central Asia, and Yemen in Western Asia), as well as in four Western African countries where it has declined only modestly. Whereas CBR has remained in the 30s per 1000 population in seven countries (Sudan, Pakistan, Iraq, Oman, Qatar, Syria and Saudi Arabia), fifteen Muslim-majority countries on the other hand, have experienced substantial declines in CBR achieving about the same rates as the average of other developing countries (25 per 1000). Furthermore, seven others (Tunisia, Iran, Tajikistan, Turkmenistan, Azerbaijan, Bahrain, UAE and Albania) have achieved CBR of less than 20 per 1000 population. More rapid declines in the crude death rate (CDR) are reported for most Muslim-majority countries, which is partly due to an young age structure in these countries. However, again the exceptions are the countries in Western Africa, Djibouti, Sudan, Somalia and Afghanistan, where CDRs are still high.

Thus, those Muslim-majority countries which have experienced civil strife or are located in sub-Sahara Africa are far behind in the demographic transition. Due to rapid decline in the CDR in most Muslim-majority countries, many are experiencing higher growth rates now than a few decades earlier. While population growth rate in the developing countries of the world was 1.59 percent during 1995-2000 period, only four Muslim-majority countries had a lower population growth rate than the average of developing countries. This situation is in spite of recent declines in CBR in a majority of Muslim countries, where CDR has declined more rapidly. However, in most Muslim majority countries, a substantial reduction in their population growth rates is expected during the coming decade.

## **POPULATION COMPOSITION AND CHARACTERISTICS**

Tables 3 and 4 provide information on demographic composition and reproductive health indicators of Muslim-majority countries.

### **Age Structure**

Like other developing countries Muslim populations are generally characterised by a young age structure. Half of the 44 Muslim-majority countries have more than 40 percent of their population under age 15, seven of which have 45

Table 2  
Crude Birth, Crude Death, and Population Growth Rates, Muslim-majority Countries and Other  
Regions: 1970–2000

Country/Region	Crude Birth Rate		Crude Death Rate		Population Growth Rate <sup>3</sup> 1995-2000	Country/Region	Crude Birth Rate		Crude Death Rate		Population Growth Rate <sup>3</sup> 1995-2000
	1970 <sup>1</sup>	2000 <sup>2</sup>	1970 <sup>1</sup>	2000 <sup>2</sup>			1970 <sup>1</sup>	2000 <sup>2</sup>	1970 <sup>1</sup>	2000 <sup>2</sup>	
<b>Eastern Africa</b>						<b>Southeast Asia</b>					
Comoro	50	47	18	12	2.72	Brunei	36	22	7	3	2.17
Djibouti	48	43	24	16	1.19	Indonesia	41	23	18	6	1.43
Somalia	50	48	24	19	4.16	Malaysia	45	25	10	4	2.02
<b>Western Africa</b>						<b>Western Asia</b>					
Burkina Faso	53	47	25	17	2.73	Azerbaijan	29	15	7	6	0.45
Chad	49	49	26	16	2.63	Bahrain	40	21	9	3	2.03
Gambia	50	43	28	14	3.23	Iraq	49	37	16	10	2.80
Guinea	61	41	27	19	0.76	Jordan	52	27	18	5	3.02
Mali	51	50	26	20	2.44	Kuwait	47	20	5	2	3.09
Mauritania	45	43	22	15	2.73	Lebanon	35	23	11	7	1.74
Niger	59	53	26	24	3.19	Oman	51	39	22	4	3.30
Senegal	49	41	25	13	2.59	Qatar	35	31	13	4	1.78
Sierra Leone	49	47	30	20	2.95	Saudi Arabia	48	35	19	6	3.37
<b>Northern Africa</b>						Syria	47	31	14	6	2.54
Algeria	49	25	16	6	2.30	Turkey	37	22	12	7	1.66
Egypt	40	28	17	7	1.89	UAE	39	18	12	4	1.99
Libya	50	28	16	4	2.42	Yemen	53	44	23	11	3.74
Morocco	47	26	17	6	1.76	<b>Europe</b>					<b>0.03</b>
Sudan	47	34	21	11	2.05	Albania	33	17	8	5	-0.40
Tunisia	39	19	14	6	1.39						
<b>South Central Asia</b>						<b>World</b>	<b>33</b>	<b>22</b>	<b>12</b>	<b>9</b>	<b>1.33</b>
Afghanistan	53	43	27	19	2.89	<b>Developed Countries</b>	<b>17</b>	<b>11</b>	<b>10</b>	<b>10</b>	<b>0.28</b>
Bangladesh	48	28	21	8	1.70	<b>Developing Countries</b>	<b>38</b>	<b>25</b>	<b>14</b>	<b>8</b>	<b>1.59</b>
Iran	45	18	16	6	1.66	India	39	26	17	9	1.6
Kyrgyzstan	31	20	11	7	0.55	China	33	15	8	6	0.9
Maldives	40	41	17	9	2.78	Southern Africa	48	27	21	14	1.6
Pakistan	48	39	19	11	2.77	Middle Africa	45	46	17	16	2.7
Tajikistan	40	19	10	4	1.47	Latin America	38	23	9	7	1.1
Turkmenistan	37	19	11	5	1.79						
Uzbekistan	36	22	10	5	1.57						

Sources: <sup>1</sup> The State of the World Population 2001 (UNICEF).

<sup>2</sup> World Population Data Sheet, 2001. (Population Reference Bureau).

<sup>3</sup> World Population Data Sheet, 1998. (U.N, Population Division, Department of Economic and Social Affairs).

Table 3

*Demographic Composition, Muslim-majority Countries and Other Regions*

Region/Country	% under 15 Years	% 15-29 Years	% 60 + Years	% of Women 15-49 Years	% in Urban Areas	Region/Country	% under 15 Years	% 15-29 Years	% 60 + Years	% of Women 15-49 Years	% in Urban Areas
<b>Eastern Africa</b>						<b>Southeast Asia</b>					
Comoro	44.9	28.5	4.3	23.1	33.2	Brunei	34.4	25.5	4.1	26.5	72.2
Djibouti	41.1	27.5	4.8	24.5	83.3	Indonesia	32.9	29.7	6.8	26.7	40.2
Somalia	47.6	26.4	4.0	22.3	27.5	Malaysia	36.0	26.6	5.9	25.6	57.3
<b>Western Africa</b>						<b>Western Asia</b>					
Burkina Faso	47.6	26.7	4.3	21.8	18.5	Azerbaijan	32.2	26.4	9.2	26.4	57.3
Chad	46.1	24.8	5.4	21.8	23.8	Bahrain	31.5	22.9	4.1	23.5	92.2
Gambia	41.0	25.7	4.9	24.4	32.5	Iraq	42.8	28.1	4.7	23.2	76.8
Guinea	42.7	24.6	6.4	22.7	32.8	Jordan	43.2	30.5	4.4	22.7	74.2
Mali	47.1	26.7	5.2	21.8	30.0	Kuwait	36.9	25.8	8.5	24.6	97.6
Mauritania	44.4	26.7	5.1	23.1	57.7	Lebanon	34.1	29.6	8.3	27.0	89.7
Niger	48.4	25.7	3.7	21.9	20.6	Oman	45.9	24.6	3.8	19.9	84.0
Senegal	45.4	26.8	4.9	22.8	47.0	Qatar	27.0	17.0	2.9	17.9	92.5
Sierra Leone	44.1	26.2	4.8	23.2	36.6	Saudi Arabia	41.5	24.7	4.3	19.7	85.7
<b>Northern Africa</b>						Syria	44.8	28.7	4.6	22.9	54.5
Algeria	39.2	29.4	5.6	24.8	59.3	Turkey	31.1	29.7	8.0	26.1	75.3
Egypt	38.3	26.6	6.1	24.3	45.9	UAE	30.4	19.3	3.3	17.9	85.9
Libya	25.9	28.6	4.7	23.2	87.6	Yemen	47.5	28.3	3.9	22.0	38.0
Morocco	35.0	30.6	6.6	26.4	55.3	<b>Europe</b>					
Sudan	42.1	27.0	4.8	23.8	36.1	Albania	31.3	27.1	8.3	25.5	39.1
Tunisia	34.0	28.7	8.3	25.7	65.5	India	35.4	27.0	7.2	24.1	27.7
<b>S. Central Asia</b>						China	26.4	28.6	9.3	29.9	32.7
Afghanistan	40.8	28.6	4.8	23.49	21.9	Southern Africa	37.0	28.0	5.5	25.8	32.7
Bangladesh	40.0	29.5	4.9	24.5	21.2	Middle Africa	46.3	25.8	4.9	22.2	NA
Iran	42.1	28.1	6.1	23.5	61.6	Latin America	33.7	28.4	7.4	25.9	74.6
Kyrgyzstan	38.9	25.6	8.5	25.7	40.1	North America	22.0	20.7	16.3	53.5	76.9
Maldives	45.3	26.1	5.6	21.3	28.3						
Pakistan	42.7	27.0	4.8	22.6	37.0						
Tajikistan	42.4	25.9	6.5	33.4	32.9						
Turkmenistan	47.0	27.1	6.2	24.8	45.5						
Uzbekistan	39.8	26.9	6.5	24.4	42.2						

Source: *World Prospects Population* (The 1998 Revision), UN.

Table 4

*Reproductive Health Indicators: Muslim-majority Countries and Other Regions*

Region/Country	Infant Mortality Rate <sup>1</sup>	% Ever Breastfed <sup>2</sup>	Median Duration of any Breast Feeding <sup>3</sup>	% Skilled <sup>3</sup> Attendant at Delivery	Maternal Mortality Ratio <sup>4</sup>	Reproductive Risk Index <sup>5</sup>	Region/Country	Infant Mortality Rate <sup>1</sup>	% Ever Breastfed <sup>2</sup>	Median Duration of any Breast Feeding <sup>3</sup>	% Skilled <sup>3</sup> Attendant at Delivery	Maternal Mortality Ratio <sup>4</sup>	Reproductive Risk Index <sup>5</sup>
<b>Eastern Africa</b>							<b>Southeast Asia</b>						
Comoros	76	96	20	24	570	NA	Brunei	8	NA	NA	98	22	NA
Djibouti	9	NA	NA	79	520	NA	Indonesia	40	NA	NA	36	470	42.4
Somalia	125	NA	NA	2	1600	NA	Malaysia	9	NA	NA	98	39	24.5
<b>Western Africa</b>							<b>Western Asia</b>						
Burkina Faso	109	99	25	43	1400	60.7	Azerbaijan	36	NA	NA	95	37	19.3
Chad	118	98	21	15	1500	69.5	Bahrain	16	97	15	97	38	NA
Gambia	64	NA	NA	44	1100	NA	Iraq	103	NA	NA	54	370	47.1
Guinea	124	NA	NA	31	1200	59.3	Jordan	30	95	12	87	41	26.8
Mali	144	95	22	24	630	67.4	Kuwait	12	NA	NA	99	25	NA
Mauritania	120	95	21	40	870	58.2	Lebanon	29	88	7	45	130	33.2
Niger	166	97	21	16	920	67.0	Oman	15	99	19	92	120	40.7
Senegal	70	97	21	47	1200	54.2	Qatar	15	NA	NA	97	41	NA
Sierra Leone	182	NA	NA	25	2100	61.1	Saudi Arabia	22	NA	NA	90	23	31.3
<b>Northern Africa</b>													
Algeria	44	93	10	77	150	35.4	Syria	26		13	67		
Egypt	51	95	19	46	170	44.2	Turkey	37	95	12	76	55	47.9
Libya	20	91	8	76	120	37.5	UAE	9	93	12	96	30	31.3
Morocco	57	95	15	40	390	43.5	Yemen	87	97	18	16	850	58.2
Sudan	73	96	19	86	1500	46.8							
Tunisia	25	94	14	90	70	25.6	India	69	95	24	35	440	44.8
<b>S. Central Asia</b>													
Afghanistan	165	NA	NA	8	820	69.1	China	38	NA	NA	85	60	16.7
Bangladesh	79	97	33	8	600	50.8	Southern Africa	6	91	42	82	NA	NA
Iran	29	98	22	74	130	32.4	Latin America	32	94	15	NA	NA	NA
Kyrgyzstan	56	95	17	30	80	23.6							
Maldives	50	NA	NA	90	390	NA							
Pakistan	95	94	20	18	200	52.7							
Tajikistan	55	NA	NA	92	120	27.1							
Turkmenistan	53	NA	NA	90	65	23.5							
Uzbekistan	45	96	17	90	60	23.3							

Sources: <sup>1</sup> Population Reference Bureau, Measure Communication.<sup>2</sup> Breastfeeding pattern in the developing world (Data sheet), PRB.<sup>3</sup> World Health Organization, World Bank.<sup>4</sup> Maternal mortality in 1995 (WHO, UNICEF, UNFPA).<sup>5</sup> The Reproductive Risk Index (Data sheet), Population Action International.

percent or more in this age group. The figures were different, though, from one country to another. For example, Niger, has the youngest age structure (49 percent under age 15), while Albania, Bahrain, Indonesia, Kuwait, Lebanon, Tunisia, Turkey and the United Arab Emirates have all 30 percent or lower population under 15 years. However, in some of these countries, the age structure is not due to natural increase alone, but is affected by labour migration, specially in the Gulf countries. In addition, like other developing countries, almost all Muslim majority countries have between 25–30 percent of the population between 15–29 years. Furthermore, a large percentage of population classified as youth who—specially when uneducated and unemployed—have potentials to create political and social destabilisation on the one hand, and in the absence of an effective family planning programme, have potentials for high population growth rate, on the other.

The generally young age structure has many implications for social policy and for reproductive health programmes in these countries. It makes the task difficult of achieving universal basic education, and of providing basic public health services to all. It also implies a very high built-in potential for further population growth, as a result of what demographers call ‘demographic momentum’—i.e. the high proportion of the population in the peak reproductive ages, leading to higher numbers of births than in a population with an older age structure, as is the case in most Muslim-majority countries.

### **Urbanisation**

In most Muslim-majority countries, a higher proportion of population lives in rural areas than the world population as a whole, mainly because the countries in which they are concentrated have below-average levels of urbanisation.<sup>3</sup> However, the overall populations in Muslim-majority countries are slightly more urbanised than in the developing countries as a whole. Urbanisation in such countries as Burkina Faso, Niger, and Bangladesh is exceptionally low. However, the levels of urbanisation in most of the Muslim-majority countries are rising which will have its own consequences for demographic transition. It is worth noting that the percentages of population living in urban areas in some countries in West Asia are very high as compared to other Muslim-majority countries, and even higher than the percentage in the developed world (average of 76 percent). For example, the percentage of population living in urban areas is substantially high in Kuwait, Qatar, Bahrain, Lebanon, Libya, United Arab Emirates, Saudi Arabia and Oman. However, in the six largest Muslim, Iran and Turkey have about two-thirds of population living in urban areas, which is fairly higher than the world and developing countries’ averages, while Pakistan, Indonesia and Egypt have between 37 to 43 percent of population living in urban areas and Bangladesh is pre-dominantly.

### **Reproductive Health Indicators**

<sup>3</sup>Whether there is a tendency for Muslims to be more or less concentrated in rural areas than non-Muslims living in the same countries could be answered through further research. However, in India Muslims are found more concentrated in urban areas than the Hindus [see, Karim (1999)].



Due to different level of socioeconomic development across the Muslim-majority countries, there is a great deal of variation in the reproductive health indicators of the population, specially their access to basic health services. Again in this respect Muslim-majority countries located in Sub-Saharan Africa and South Asia have poor indicators. Infant Mortality Rate (IMR) is widely considered as an indicator of health status of the population as well as of overall level of development of a country. It is therefore not surprising that high IMRs are recorded in most of the Muslim-majority African countries (particularly in Western Africa), as well as in Afghanistan, Pakistan, Yemen and Bangladesh. During 1960-65, there was an extraordinarily wide range of IMR values among Muslim countries [WHO (2000)]. It was above 200 per 1000 live births in eight Muslim-majority countries (Mali, 293, Sierra Leone-Yemen 220, Afghanistan 215, Guinea 215, Niger 211, Gambia 207 and Comoros). In additional in 15 countries IMR ranged between 150 and 200, while only seven reported IMR values below 100 per 1000 live births. By 2000, on the other hand, some Muslim-majority countries, particularly in South East and Western Asia, recorded very low IMR as compared to Muslim-majority countries in Africa. In 2000, such countries as Sierra Leon, Afghanistan, Guinea, Gambia and Mali report IMR ranging between 120 and 180. On the other hand it was as low as in West European countries in Brunei, Malaysia, United Arab Emirates, Kuwait, Qatar, Oman and Bahrain.

Following the Islamic teachings, breastfeeding is quite common in Muslim populations. In most of the Muslim-majority countries, for which data are available, above 95 percent of women report breastfeeding their children. Besides, in majority of these countries, for which data are available, the median duration of breastfeeding exceeds 18 months. Apparently, fertility in these countries has been lower than the natural fertility level due to widespread practice of breastfeeding. However, women in all Muslim-majority countries do not have similar access to maternal care services. For example, while in West-African countries 15–50 percent of deliveries are attended by skilled persons, in most countries of Northern Africa, between 40 and 90 percent are attended by skilled persons.

Many Muslim-majority countries (especially in Western Africa and South Asia), report high maternal mortality ratios. However, there are exceptions such as Algeria, Iran, Tajikistan, Brunei, Malaysia and several countries in Western Asia where maternal mortality ratio is substantially low (below 30 per 1,000 live births). High maternal mortality ratios in several Muslim-majority countries are more a reflection of poor obstetric care facilities—similar to other developing countries—due to the shortage of skilled attendants at delivery.

### **Fertility**

A great deal has been written about the fertility of Muslims and attitude of Islam toward population control. In the past, observations were made that Muslim populations tended to have high fertility, that there was no evidence of decline, and that in a given country, Muslims tended to have higher fertility than adherents of other religions Kirk (1966). However, in many of the examples Kirk was citing, studies were not available that controlled for socio-economic background factors. In India, where fertility rates tend to be somewhat higher among Muslims than in other communities, the extent to which this relationship holds after controlling for socio-

economic disadvantages experienced by Indian Muslims. For example, in a review of 13 major studies on differential fertility by religion in India, Bose (1989) had concluded that “we do not know whether or not Muslim fertility is higher than Hindu fertility”. Similarly, Chaudhry (1982) has shown that the lower socioeconomic status of the Muslim women in India is the major contributory factor to their higher fertility, not their religious affiliation.

Several recent studies of Asian and African countries have been unable to conclusively demonstrate the effects of religious belief on fertility. In a review of such studies, Kollehlon (1994) reports that fertility levels among Muslim as against non-Muslim populations provide contradictory evidence. For example, while earlier studies of fertility in Israel, the former Soviet Union, Jordan, India, and tropical Africa have reported Muslim fertility to be higher than the fertility of other religious groups, fertility levels among Muslims in Cameroon, Ghana, Nigeria, West Africa, and sub-Saharan Africa are lower than among non-Muslim populations. Kollehlon’s study of fertility in Liberia finds that Muslim fertility is only slightly higher than that of Catholics and Protestants. In fact, this difference was found to be attributable mainly to socioeconomic and demographic differentials and not to religious affiliation.

While there exists a considerable number of studies comparing the reproductive behaviour of Muslim and non-Muslim women, a few comparative studies attempt to explain the differential patterns of behaviour among the geographically spread Muslim population. Do the Muslim countries have a typical demographic pattern? In *The Demography of Islamic Nations*, Weeks (1988) found noticeable ‘regional and temporal’ diversity in fertility among Muslim countries. He contends that, as a group, Muslim countries are still in the early stages of demographic transition, and that ‘the single most remarkable demographic aspect of Islamic societies is the nearly universal high level of fertility’. On the other hand, Obermeyer (1992) maintains that

‘one of the problems with the Islamic explanation (of high fertility) is that it treats as monolithic a trait shared by close to a billion people worldwide, and that has adapted to, and been affected by, diverse regional contexts. The diversity in the doctrine and the cultural context of Islam calls into question the recourse to Islam as an explanation for demographic trends’.

In a comparative study, in which data were analysed from nine Muslim countries (Egypt, Morocco, Niger, Senegal, Jordan, Turkey, Pakistan, Bangladesh and Indonesia), by Karim (1997) a wide range of variation in fertility were found. These countries differed on average age at marriage for females as well as level of their educational attainment, however, fertility differentials in these countries was reported to be mainly due to the different policies adopted by each of these countries. The study concludes that, “there appears to be no typical pattern of reproductive behaviour which could be described as ‘Islamic’. Islam as such seems to be neither a hindrance nor a stimulating factor in fertility decline, at the global level”.

There are no a priori reasons for fertility to be higher among Muslims. While Islam does encourage all Muslims to marry, it does not forbid the use of contraception [Omran (1994)]. Since the religious leader or a priest does not necessarily play a formal role in the day-to-day life of a Muslim, decisions regarding reproductive behaviour in Muslim societies may follow secular

trends. Some Muslim-majority countries have reached almost replacement fertility level between 2 to 2.4 per woman (e.g. Azerbaijan, Tunisia, Iran, Lebanon and Turkey), some are catching up fast with TFR between 2.5 to 2.8 per woman (e.g. Algeria, Morocco, Turkmenistan, Uzbekistan, Indonesia, Brunei, Malaysia, Bahrain, Kuwait, UAE and Turkey).

With the passage of time, more and more Muslim-majority countries have adopted official policies to promote family planning. Ross and Mauldin (1996) rank Indonesia and Tunisia behind China, as the countries with the highest overall scores in family planning programme efforts. However, with the exception of Indonesia, the largest Muslim countries (with populations of more than 60 million), all received moderate scores in family planning programme efforts. On the other hand, among other Muslim countries for which data are available, only two—Saudi Arabia and United Arab Emirates—were identified as providing weak or no support to family planning programme efforts. It is important to note, however, that fertility rates in many Muslim countries had started declining even without proper family planning programme efforts.

Clearly, contrary to the views of some earlier commentators [see Karim (2005)], Islam itself is no barrier to low levels of fertility, though Islamic teachings have certainly been used in different contexts to support pro-natalist policies and early marriage of women, and to oppose certain methods of birth control such as sterilisation. If we examine the history of population policy in large countries with Muslim-majority populations, the picture that emerges is a complex one, in which Islamic teachings play their part, but always within the context of the particular political, social and of course demographic setting of each country. The same can be said of the role of Islam in the emerging consensus on reproductive health policy at the Cairo conference and after.

In sum, fertility was high till the 1980s, but it has declined significantly in most of these countries by the mid-1990s. This contradicts the widely held view that fertility transition has not started in Muslim countries. Nevertheless, the level of fertility is still high among some of the Muslim-majority countries, particularly in Africa. The reduction of infant mortality discussed earlier might have contributed to the fertility decline by reducing the demand for more children. This led Karim (1997) to conclude that, 'while socio-economic factors may have played an important role in early fertility reductions in Muslim countries, effective family planning programmes seem to have become the more important factor in achieving fertility transition'.

### **Recent Fertility Trends in Muslim Countries**

Table 5 presents trends in total fertility rates (TFRs) during the past 40 years in Muslim-majority countries. Till the early 1960s fertility rates in almost all Muslim countries were fairly high. However, since then many countries have experienced substantial fertility declines (although none in East and West Africa). The most dramatic regional declines occurred in North Africa, where Egypt began with the greatest early decline, quickly joined by Tunisia, Morocco, and Algeria. These four countries experienced more than 50 percent declines in fertility over the past 40 years. Conversely, the 10 Muslim countries in East and West Africa saw negligible declines during the first 15 years, and modest declines among only a few countries in the previous 15 years. Muslim-majority countries in Asia show varying levels of

fertility decline. All three Muslim-majority countries of South East Asia experienced declines of more than 50 percent in the past 40 years. Among Muslim countries of South and Central Asia, the former Soviet republics took the lead in fertility declines during the first 15 years, while others experienced substantial declines during the last 15 years, with the exception of Afghanistan and the Maldives. The most remarkable recent decline in fertility occurred in Bangladesh (over 40 percent).

West Asian fertility declines have been both great and small. Azerbaijan, Lebanon, and Turkey began significant early declines that have continued in recent years as well. These countries have been joined by Bahrain and Kuwait, resulting in five countries that have had fertility declines of more than 50 percent. During the past 15 years, most of the countries in West Asia experienced about one-third decline. However, during the same period, Saudi Arabia and Iraq had 20 percent declines while fertility remained high in Oman and Yemen.

In almost all Muslim-majority countries, TFRs fell between these two periods, in some cases quite sharply. Only in Somalia, Afghanistan and Yemen was there no downward trend in TFR. Thus, the overall picture of fertility in Muslim-majority countries has been from a regime of high fertility in the early 1960s, when most countries had a TFR of 6 to 7.5 children per woman, to a TFR between 2.1 to 3.5 in more than half of the countries by the beginning of the 21st Century.

Table 5  
Trends in Total Fertility Rate: Muslim-majority Countries, 1960–2005

Region/Country	Total Fertility Rate			Percent Decline			Region/Country	Total Fertility Rate			Percent Decline		
	1960–65	1975–80	2000–05	1960–65 to 1975–80	1975–80 to 2000–05	1960–65 to 2000–05		1960–65	1975–80	2000–05	1960–65 to 1975–1980	1975–80 to 2000–05	1960–65 to 2000–05
<b>Eastern Africa</b>							<b>Southeast Asia</b>						
Comoros	6.9	7.1	4.9	2.9	-44.9	-40.8	Brunei	6.7	4.4	2.5	-34.3	-77.3	-169.9
Djibouti	6.9	6.7	5.7	-2.9	-17.6	-21.2	Indonesia	5.4	4.7	2.4	-13.0	-99.8	-129.6
Somalia	7	7	7.3	0.0	3.4	3.4	Malaysia	6.7	4.2	2.9	-37.3	-45.0	-131.4
<b>Western Africa</b>							<b>Western Asia</b>						
Burkina Faso	6.3	6.5	6.7	3.2	2.7	5.7	Azerbaijan	5.6	3.6	2.1	-35.7	-71.4	-166.7
Chad	6	5.9	6.7	-1.7	11.3	9.8	Bahrain	7.2	5.2	2.7	-27.8	-95.7	-171.0
Gambia	6.5	6.5	4.7	0.0	-38.2	-38.2	Gaza	8	7.4	5.6	-7.5	-32.8	-43.6
Guinea	7	7	5.8	0.0	-20.2	-20.2	Iraq	7.2	7.2	4.8	0.0	-50.9	-50.9
Mali	7.1	7.1	7.0	0.0	-1.4	-1.4	Jordan	8	8	3.6	0.0	-124.3	-124.3
Mauritania	6.5	6.5	5.8	0.0	-12.2	-12.2	Kuwait	7.3	7.3	2.7	0.0	-174.2	-174.2
Niger	7.1	8.1	8.0	14.1	-1.3	11.3	Lebanon	6.4	4.3	2.2	-32.8	-97.3	-193.7
Senegal	7	7	5.0	0.0	-40.7	-40.7	Oman	6.4	7.2	5.0	12.5	-45.0	-28.9
Sierra Leone	6.3	6.5	6.5	3.2	0.0	3.1	Qatar	7	7	3.2	0.0	-117.3	-117.3
<b>Northern Africa</b>							Saudi Arabia	7.3	7.3	4.5	0.0	-61.1	-61.1
Algeria	7.4	7.2	2.8	-2.7	-157.4	-164.6	Syria	7.5	7.5	3.3	0.0	-126.0	-126.0
Egypt	7.1	5.3	3.3	-25.4	-61.1	-115.8	Turkey	6.1	6.1	2.4	0.0	-150.7	-150.7
Libya	7.2	5.4	3.0	-25.0	-79.1	-138.8	UAE	6.9	5.7	2.8	-17.4	-102.5	-145.1
Morocco	7.2	5.9	2.7	-18.1	-114.9	-162.3	Yemen	7.6	7.6	7.0	0.0	-8.5	-8.5
Sudan	6.7	6.8	4.4	1.5	-55.0	-52.7	Europe	2.4	1.9	-	-20.8	-	-
Tunisia	7.2	5.7	2.0	-20.8	-184.1	-258.9	North America	3.3	2	-	-39.4	-	-
<b>South Central Asia</b>							Latin America	5.9	4.5	-	-23.7	-	-
Afghanistan	7	7.2	6.8	2.9	-5.9	-2.9	Middle Africa	6	6.5	-	8.3	-	-
Bangladesh	6.7	6.7	3.5	0.0	-93.8	-93.8	Southern Africa	6.5	4.6	-	-29.2	-	-
Iran	7.3	6.5	2.3	-11.0	-178.6	-212.9	China	5.7	3.3	1.8	-42.1	-81.3	-213.1
Kyrgyzstan	5.4	4.1	2.6	-24.1	-55.1	-104.2	India	5.8	4.8	3.0	-17.2	-92.5	-59.3
Maldives	7	7	5.3	0.0	-31.3	-31.3							
Pakistan	7	7	5.1	0.0	-37.8	-37.8							
Tajikistan	6.3	5.9	3.1	-6.3	-93.0	-106.1							
Turkmenistan	6.8	5.3	2.7	-22.1	-96.3	-151.9							
Uzbekistan	6.6	5.1	2.4	-22.7	-109.4	-170.9							

Source: World Population Prospects, The 1998 Revision. (Vol. 1: Comprehensive Tables).

## POPULATION POLICIES IN MUSLIM-MAJORITY COUNTRIES

While official population policies are important to gauge the attitude of the top leadership to population issues, but there is a long step between official endorsement at the top and enthusiastic support at all levels of government and within civil society. Pakistan was one of the first developing countries in the world to acknowledge the need to lower fertility rates, and in 1962 adopted a family planning programme to help achieve this end followed by other large Muslim countries—Egypt in 1964; Turkey in 1965, and Iran and Indonesia in 1967.

Though receiving top-level support during the initial period (specially 1965-69), however, the history of family planning in Pakistan has been a chequered one, largely because the issue has been caught up in politics, and because it has never received strong support from the religious leaders [Robinson, Shah, and Shah (1981); Rukanuddin and Hardee-Cleveland (1992)]. In Pakistan, till the end of the 1980s, TFR remained about 6 per women and by the end of 1990s it was reduced to 5.1 [Casterline and Sathar (2000)]. However, the most recent *Pakistan Demographic Survey* [Pakistan (2003)] suggests that it has reached 4 per woman.

On the other hand, immediately after the Islamic Revolution in Iran, the family planning programme introduced in 1967 was officially dismantled. In addition, the new government adopted a pro-natalist approach encouraging younger age of marriage, and universality of marriage in the society, and the government and religious leaders praised women for bearing and rearing good children [Abbasi-Shavazi (2000)]. The pro-natalist policies continued even after the release of the high growth rate by the 1986 Census, but the policy was questioned by population experts, demographers and economists, who carefully and professionally analysed the results of the census. Subsequently the government's population policy was reversed and a new anti-natalist family planning programme was officially launched in December 1989. The Family Planning Bill was ratified by the Parliament in May 1993, and there is evidence of considerable success in controlling fertility [Mehryar, *et al.* (1998)]. Total fertility declined by around 60 percent, from 6.4 to 2.6, in the decade between 1986 and 1996 [Abbasi-Shavazi (2000a); Aghajanian and Mehryar (1999)].

While Pakistan and Iran provide extreme examples of the role of political support for family planning, governments in a majority of Muslim countries have taken a stand whereby they are either fully supportive of a family planning programme or have adopted a non-intervention policy. According to the United Nations (2000), among 43 Muslim-majority countries, 24 consider their fertility too high and only one wishes to raise its fertility level and as many as 34 provide direct support on contraceptive use. This suggests that there is a convergence of views in favour of family planning in the Muslim-majority countries.

### CONCLUSIONS

Most of the world's Muslims (77 percent) live in countries where more than 50 percent of the population (and in most cases, a much higher proportion) are Muslim. These countries are

mostly located in Africa, the Middle East and Asia, though small numbers of Muslims can be found in almost every country. From the estimated 1.5 billion Muslims in 2003, the numbers are expected to increase through natural increase to about 1.8 billion in 2025. From almost whatever perspective they are viewed, Muslim populations are characterised by great diversity. This is certainly true of their ethnic and cultural backgrounds, as well as their socio-economic conditions. Although on the whole, Muslim populations rank below the world's average in terms of levels of socio-economic development, there is a wide range of socio-economic conditions. Some of the oil-rich states are extremely wealthy, and some of the larger countries (e.g. Turkey, Iran and Egypt) are in the upper ranks of developing countries. Mass education and development of mass communications in most of these countries is weakening the traditional values and norms and leading to inroads by Western culture, although in many cases there is strong resistance to these influences.

Fertility transition has begun in most of these countries at some time over the past two decades, and in some, it has moved very rapidly. Elsewhere, however, particularly in the West African countries, there is little evidence of the onset of fertility decline. Therefore, these countries have youthful populations and because of population momentum are facing high growth rates, even if fertility declines quite rapidly. Some of the key issues their governments face are the expansion of education systems to provide basic education to all and provision of adequate employment and job opportunities to the young people. There are also many pressing reproductive health needs, which require considerable investment in upgrading basic health services and revising health strategies, and coming to terms with difficult issues related to adolescent sexuality.

Given the considerable diversity in socio-economic conditions, contraceptive prevalence rates and family planning efforts in Muslim countries around the world, it is no wonder that their fertility levels also differ widely. As Weeks (1988: 47) concluded "there is considerable diversity among Islamic countries; and there are few demographic patterns in Islamic nations that appear to be direct result of religious influence". Karim (1997:29) has essentially drawn the same conclusion where he noted that "there appears to be no typical pattern of reproductive behaviour which could be described as Islamic. Islam as such seems to be neither a hindrance nor a stimulating factor in fertility decline, at the global level.

Nevertheless because of the rapid population growth in many of the Muslim-majority countries, Muslims are expected to be climbing towards over a quarter of the world's population in the next decade. Therefore, the demographic trends in Muslim-majority countries will have an important bearing on those of the world as a whole, and their political and cultural influence on the world stage is likely to increase.

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