HUMAN RESOURCES FOR HEALTH
in maternal, neonatal and reproductive health at community level

A profile of Bangladesh

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The Human Resources for Health Knowledge Hub

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Hub publications report on a number of significant issues in human resources for health (HRH), currently under the following themes:

- leadership and management issues, especially at district level
- maternal, neonatal and reproductive health workforce at the community level
- intranational and international mobility of health workers
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ACRONYMS

**AAAH**  Asia and Pacific Action Alliance for Human Resources for Health

**ANMC**  Australian Nursing and Midwifery Council

**BAVS**  Association for Voluntary Sterilization

**BRAC**  non-government organisation, formally known as the Bangladesh Rehabilitation Assistance Committee

**GDP**  gross domestic product

**HR**  human resources

**HRH**  human resources for health

**ICM**  International Confederation of Midwives

**MDG**  Millennium Development Goal

**MNRH**  maternal, neonatal and reproductive health

**MoHFW**  Ministry of Health and Family Welfare

**NGO**  non-government organisation

**NSDP**  Non-government Organisation Service Delivery Program

**SAMCO**  sub-assistant community medical officer

**SEARO**  World Health Organization Regional Office for South-East Asia

**UNDESA**  United Nations Department of Economic and Social Affairs

**UNFPA**  United Nations Population Fund

**US**  United States

**USD$**  United States dollars

**WHO**  World Health Organization

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**A note about the use of acronyms in this publication**

Acronyms are used in both the singular and the plural, e.g. MDG (singular) and MDGs (plural). Acronyms are also used throughout the references and citations to shorten some organisations with long names.
EXECUTIVE SUMMARY

This profile provides baseline information that can inform policy and program planning by donors, multilateral agencies, non-government organisations and international health practitioners.

Accurate and accessible information about the providers of maternal, neonatal and reproductive health (MNRH) services at the community level (how they are performing, managed, trained and supported) is central to workforce planning, personnel administration, performance management and policy making.

Data on human resources for health (HRH) is also essential to ensure and monitor quality service delivery. Yet, despite the importance of such information, there is a paucity of available knowledge for decision making. This highlights a particular challenge to determining the workforce required to deliver evidence based interventions at community level to achieve Millennium Development Goal (MDG) 5 targets. This profile summarises the available information on the cadres working at community level in Bangladesh; their diversity, distribution, supervisory structures, education and training, as well as the policy and regulations that govern their practice.

The profile provides baseline information that can inform policy and program planning by donors, multilateral agencies, non-government organisations (NGOs) and international health practitioners. Ministry of health staff may also find the information from other countries useful in planning their own HRH initiatives.

The information was collected through a desk review and strengthened by input from key experts and practitioners in the country. Selected findings are summarised in the diagram on page 4. There are key gaps in the collated information which may point to the need for consensus regarding what HRH indicators should be routinely collected and how such collection should take place at community level.
BANGLADESH: SELECTED HRH AND MNRH INDICATORS

Maternal mortality ratio in 2008
370 deaths per 100,000 live births

Skilled birth attendance:
24%
of births attended by a skilled birth attendant (2005-2009)

Human resources for health policy reference to community level HRH in MNRH
YES

3 nurses and midwives per 10,000 people

33.6%
Government spending on health as a percentage of total expenditure on health (2007)

Maternal, neonatal and reproductive health policy reference to community level HRH in MNRH
YES

Neonatal mortality ratio in 2009
30 deaths per 1,000 live births

3 doctors per 10,000 people

Key to acronyms
HRH human resources for health
MNRH maternal, neonatal and reproductive health

(Adapted from Bangladesh Health Watch 2008; MoHFW Bangladesh 2004; MoHFW Bangladesh 2008; UNICEF 2010; WHO 2009; WHO 2010b)
TABLE 1. KEY STATISTICS
(Adapted from Hogan et al. 2010; UNDESA 2005; UNICEF 2010; WHO 2010b)

<table>
<thead>
<tr>
<th>POPULATION</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total thousands (2008)</td>
<td>160,000</td>
</tr>
<tr>
<td>Annual growth rate (1998–2008)</td>
<td>1.6%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>HEALTH EXPENDITURE (2007)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total expenditure on health as a percentage of GDP</td>
<td>2.4%</td>
</tr>
<tr>
<td>General government expenditure on health as a percentage of total expenditure on health</td>
<td>33.6%</td>
</tr>
<tr>
<td>Private expenditure on health as a percentage of total expenditure on health</td>
<td>66.4%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MDG 5 STATUS</th>
<th>Possible to achieve</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>MORTALITY RATIO</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of maternal deaths for every 100,000 live births:</td>
<td></td>
</tr>
<tr>
<td>UNICEF 2010</td>
<td>340</td>
</tr>
<tr>
<td>Hogan et al. 2010</td>
<td>338 (195–546)</td>
</tr>
<tr>
<td>Number of neonatal deaths for every 1,000 live births (in the first 28 days of life; 2009)</td>
<td>30</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SKILLED BIRTH ATTENDANCE (2005–2009)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Percentage of births attended by a skilled birth attendant</td>
<td>18%</td>
</tr>
</tbody>
</table>

**A note on health expenditure**

The government’s expenditure on health as a percentage of the total gross domestic product (GDP) remained relatively constant between 1995 and 2004 (3% and 3.3% respectively) but dropped to 2.8% in 2005 (as seen in Table 1). The health workforce takes up approximately 75% of the health budget (Bangladesh Health Watch 2008).
There are approximately 3.5 million births in Bangladesh each year, 90% of which take place at home (Bangladesh Health Watch 2008). Each year, 12,000 mothers die in childbirth. Women face a 1 in 21 lifetime risk of dying from pregnancy and childbirth related causes (Ahmed and Jakaira 2009; MoHFW Bangladesh 2003).

Mortality rates are highest amongst adolescent mothers, possibly attributable to high levels of malnutrition amongst this group (SEARO).

Despite some progress, the maternal mortality ratio remains high although there are considerable variations within regions of the country and inconsistencies between WHO and government estimates, leading to uncertainty as to whether the country is on track to reach its MDG targets.

One of the considerable achievements in Bangladesh has been the increase in the contraceptive prevalence rate and the decrease in fertility rate. The contraceptive prevalence rate rose from 8% in 1975 to 53% in 2000 (MoHFW Bangladesh 2003). The fertility rate dropped from 6.3% in 1975 to 3% in 2004 (SEARO 2004). This was due to the Maternal Child Health Family Planning Program which started in the 1970s. However, pregnancy care remains sub-optimal.

Two thirds of women do not receive antenatal care; in rural areas only 28% of women have any antenatal visits (MoHFW Bangladesh 2003). Fifteen percent of births took place in health facilities in 2007, an increase from 9% in 2004 (Ahmed and Jakaira 2009). Doctors, nurses and midwives assist in 13% of births with other midwifery-trained health providers assisting in another 14%.

The government is aiming to increase the skilled birth attendance rate to 50% by 2010, particularly for women in the lower wealth quartiles, focusing on improved skilled attendance at home births (Anwar et al. 2007). Only 18% of mothers receive postnatal care from a trained provider (SEARO, 2004). Among women who give birth at home, only 7% receive postnatal care (MoHFW Bangladesh 2003).
SERVICES AND CADRES AT COMMUNITY LEVEL

This section outlines the structure of health service from sub-district to village level as well as the cadres working in these settings and the roles they perform.

Note, the symbol # in the descriptions below refers to the number of subjects in question (e.g., number of staff, services, etc.).

Upazila (sub-district) level

- **Upazila health complex (#407)**
  - Health-care hub with in-patient care support, 31–50 beds and emergency obstetric care
  - **Staff:** gynaecologist, anaesthetist, medical doctors and skilled support nurses on 24 hour duty
  - **Capacity:** provide both inpatient and outpatient care, have basic laboratory facilities, serve a population of about 200,000 (Bangladesh Health Watch 2008; Baqui et al. 2008b)

- **Maternal and child health and family planning unit**
  - **Staff:** family welfare visitors, graduate medical officer, sometimes gynaecologist and midwives (SEARO 2004)
  - **Services:** antenatal care, normal delivery, postnatal care, expanded program of immunisation, health education, childcare, contraceptives and sterilisation (MoHFW Bangladesh 2006)

- **Maternal and child welfare centre (#12)**
  - **Staff:** medical officer, anaesthetist, family welfare visitor and dai (nurses)
  - **Services:** antenatal care, normal delivery, emergency obstetric care, postnatal care, expanded program of Immunisation, contraceptives and sterilisation (MoHFW Bangladesh 2006)

- **NGO clinics (#68)** (MoHFW Bangladesh 2006)

Union level

- **Union health and family welfare centre (#3,500)**
  - Provides only outpatient care (Bangladesh Health Watch 2008)
  - **Staff:** medical officers, family welfare visitor, pharmacist, family welfare assistant (outreach only) and medical assistants (not all staff is available in all centres)
  - **Services:** antenatal care, screening of at-risk pregnancies, safe delivery (domiciliary care), postnatal care, child care, health education and contraceptives (MoHFW Bangladesh 2006).

- **Rural dispensary (#1,275)** (MoHFW Bangladesh, 2006)
  - **Staff:** doctors, village doctors, sales people, traditional healers and homeopaths (Bangladesh Health Watch 2008)

- **Mother and child welfare centre (#23)** (MoHFW Bangladesh 2006)

Village level

- **Satellite clinic (30,000 provided per month)**
  - **Services:** maternal care and family planning (MoHFW Bangladesh 2006)

- **Domiciliary service (#23,500)** (MoHFW Bangladesh 2006)
### Table 2. Cadres Involved in Maternal, Neonatal and Reproductive Health at Community Level in Bangladesh

(Adapted from Baqui et al. 2008a; Ahmed and Jakaira 2009; Bangladesh Health Watch 2008; SEARO 2004)

<table>
<thead>
<tr>
<th>BASE OR PLACE</th>
<th>STAFF INVOLVED (NAME OF CADRE)</th>
<th>POSSIBLE SERVICE IN THE COMMUNITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Home</td>
<td>Female community health worker 1</td>
<td>Identifies pregnant women</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Makes two antenatal home visits to promote birth and newborn-care preparedness</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Makes postnatal home visits to assess newborns on the first, third, and seventh days of birth</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Refers or treats sick neonates, community education on postnatal care</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Promotes breast feeding, family planning and distributes contraception</td>
</tr>
<tr>
<td>Outreach centre</td>
<td>Dai (traditional birth attendant)</td>
<td>Assists births</td>
</tr>
<tr>
<td></td>
<td></td>
<td>In some instances, makes referrals for complicated cases</td>
</tr>
<tr>
<td></td>
<td>Family welfare assistant</td>
<td>Supplies condoms and contraceptives pills during home visits</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Family planning</td>
</tr>
<tr>
<td></td>
<td>Family welfare visitor</td>
<td>Supplies condoms and contraceptive pills</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Family planning and counselling</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Maternal health</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Newborn care</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Basic delivery</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Posted at Union Health Centres, Mother and Child</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Welfare Centres and Upazila health facilities</td>
</tr>
<tr>
<td></td>
<td>Health assistant</td>
<td>Makes home visits every two months for preventive health care services</td>
</tr>
<tr>
<td></td>
<td>Community-based skilled birth attendant</td>
<td>Antenatal care</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Conducts normal home births, postnatal care,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Identifies and refers obstetric complications</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Distributes contraception</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Performs on average 3 to 4 births each month</td>
</tr>
<tr>
<td></td>
<td>Community health worker</td>
<td>Works for a number of non-government organisations</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Collects information on newlyweds and mothers</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Family planning education</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Distributes contraception and medicine</td>
</tr>
<tr>
<td>Aid post or basic clinic</td>
<td>Nurse</td>
<td>Antenatal care</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Birth attendance</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Postnatal care</td>
</tr>
<tr>
<td></td>
<td>Village doctor</td>
<td>Cares for general health needs in rural villages</td>
</tr>
<tr>
<td></td>
<td>Medical assistant</td>
<td>Works at Upazila health complexes, in private clinics and in Union Health and Family Welfare Centres</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Antenatal care, delivery and postnatal care</td>
</tr>
<tr>
<td></td>
<td></td>
<td>This cadre was originally designed to make up for a shortfall in doctors.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The government has stopped hiring medical assistants and employment is now mainly in the private sector</td>
</tr>
</tbody>
</table>

**Notes**

1. Only in selected areas, especially where non-government organisations are working
This section provides an overview of the numbers of health workers who may be engaged in MNRH at community level. Table 4 describes the distribution of this workforce according to age, gender and employment in the public and private sectors.

There is a significant difference between health care services offered in rural and urban areas. The majority of the health workforce, when all health providers are taken into account, is located in rural areas.

The majority of qualified providers, however, are located in urban areas. This means that the majority of the rural population is relying on the informal sector for health care services. The private sector provides 60% of health care services in rural areas (Bangladesh Health Watch 2008).

Further, 95% of all traditional birth attendants and 97% of traditional healers are located in rural areas, compared to 17% of doctors and 25% of nurses (Bangladesh Health Watch 2008). There is little formal knowledge of these providers; however, it has been estimated that 85% of the population turn to them as a first resort (Bangladesh Health Watch 2008). The majority of elderly people (aged over 60) providing health care services are working in the informal sector, usually in traditional medicines. Younger providers are mainly in the cadres of nursing and community health workers (Bangladesh Health Watch 2008).

### Table 3. Health Worker Density in Bangladesh

(Adapted from WHO 2009; Bangladesh Health Watch 2008)

<table>
<thead>
<tr>
<th>Number of health workers</th>
<th>0.58 for every 1,000 people</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of nurses and midwives</td>
<td>0.3 for every 1,000 people</td>
</tr>
<tr>
<td>Ratio of nurses and midwives to doctors</td>
<td>1:1</td>
</tr>
</tbody>
</table>

### Table 4. Health Worker Distribution in Bangladesh

(Adapted from Bangladesh Health Watch 2008; MoHFW Bangladesh 2009a; AAAH 2008; MoHFW Bangladesh 2009b; WHO 2009; WHO 2010a)

<table>
<thead>
<tr>
<th>Cadre</th>
<th>Number</th>
<th>Public</th>
<th>Private</th>
<th>Mean Age</th>
<th>Female</th>
<th>Male</th>
<th>Ratio (for every 1,000 people)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family planning officer</td>
<td>546</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.004</td>
</tr>
<tr>
<td>Community-based skilled birth attendant</td>
<td>3,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.019</td>
</tr>
<tr>
<td>Assistant family planning officer</td>
<td>1,440</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.009</td>
</tr>
<tr>
<td>Health assistant</td>
<td>21,016</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.135</td>
</tr>
<tr>
<td>Family welfare visitor</td>
<td>5,705</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.036</td>
</tr>
<tr>
<td>Family welfare assistant</td>
<td>23,500</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.151</td>
</tr>
<tr>
<td>Community health worker</td>
<td>48,692</td>
<td></td>
<td></td>
<td>34.5</td>
<td>83.8%</td>
<td>16.3%</td>
<td>0.312</td>
</tr>
<tr>
<td>Village doctor</td>
<td></td>
<td></td>
<td></td>
<td>39.6</td>
<td>5.5%</td>
<td>94.5%</td>
<td></td>
</tr>
<tr>
<td>Traditional birth attendant</td>
<td>21,000</td>
<td></td>
<td></td>
<td>51.5</td>
<td>98.8%</td>
<td>1.2%</td>
<td>0.135</td>
</tr>
<tr>
<td>Traditional healer</td>
<td>21,000</td>
<td></td>
<td></td>
<td>52.9</td>
<td>24.4%</td>
<td>75.6%</td>
<td>0.135</td>
</tr>
<tr>
<td>Trained dai</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1 per village</td>
</tr>
<tr>
<td>Registered nurse</td>
<td>27,732</td>
<td>14,686</td>
<td></td>
<td>41</td>
<td>96.6%</td>
<td>3.4%</td>
<td>0.178</td>
</tr>
<tr>
<td>Midwife</td>
<td>18,516</td>
<td></td>
<td>4,110</td>
<td>22,350</td>
<td>0.119</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medical assistant</td>
<td>5,598</td>
<td>5,598</td>
<td>720</td>
<td>43</td>
<td>10.6%</td>
<td>89.4%</td>
<td>0.036</td>
</tr>
<tr>
<td>Doctor</td>
<td>50,004</td>
<td>19,002</td>
<td>31,002</td>
<td>43</td>
<td>10.6%</td>
<td>89.4%</td>
<td>0.321</td>
</tr>
</tbody>
</table>
SUPERVISON AND SCOPE OF PRACTICE

Lines of supervision exist but are considered to be quite weak. There is also confusion about the supervisory structure of community-based skilled birth attendants with some reporting to the Directorate General of Family Planning and others reporting to the Directorate General of Health Services (MoHFW Bangladesh and UNFPA 2004).

Health assistants and family welfare assistants are supervised by the health inspector (male) and family planning inspector (male) at the union level (WHO Bangladesh 2009). Family welfare visitors have been trained since 2008 to supervise the newly created cadre of community-based skilled birth attendants (Ahmed and Jakaira 2009).

COMPETENCY

A study of skilled birth attendants trained by two different NGOs (The Bangladesh Association of Voluntary Sterilization and the NGO Service Delivery Program or NSDP) found that, while most attendants were competent in antenatal care, postnatal care and normal delivery, skill levels were low in emergency cases.

Overall, knowledge scores were 41% (BAVS) and 68% (NSDP), and skill test results were 56% (BAVS) and 65% (NSDP) (Anwar et al. 2007).

TEAM WORK

While there is information available on the cadres working in different settings, it is difficult to ascertain how well these cadres work together. In health facilities the main cadres found working together are doctors, nurses and paraprofessionals.

Village doctors often also work in NGO health facilities and community health workers in government clinics. Two community-based workers, one family welfare assistant and one medical assistant generally work in a team to serve communities of around 6,000 to 7,000 people (Baqui et al. 2008b).

EDUCATION AND TRAINING

There are a large number of vacant teaching posts and overcrowding in teaching facilities with a teacher to student ratio of 1:57 in some settings (Bangladesh Health Watch 2008).

Doctors

The Bangabandhu Sheikh Mujib Medical University offers graduate degrees and diplomas in medicine and the Bangladesh College of Physicians and Surgeons offers specialised degrees (Bangladesh Health Watch 2008).

Nurses

There are 70 training institutes across the country, 51 of these are government run and 19 are private. Each year approximately 2,280 students are admitted (1,790 in public institutes and 490 in private institutes) and around 1200 qualify for a Diploma in Nursing. The fourth year of this course is devoted to midwifery, family planning, obstetrics and neonatal nursing. There is a focus on community nursing throughout the course. All colleges follow the same curriculum for the four-year Nursing Diploma.

The College of Nursing offers a Bachelor Degree in Nursing (Bangladesh Health Watch, 2008). Educational standards, teacher qualifications, training courses and examinations are overseen by the Bangladesh Nursing Council (Ministry of Law Justice and Parliament Affairs Bangladesh 1983).

The International University of Agriculture, Business and Technology (Dhaka), with assistance from educators from Vancouver, has started a Bachelor of Science in Nursing with a strong focus on primary health care. There are 65 students currently enrolled in this four-year course (Bangladesh Health Watch 2008).

Medical Assistants (also known as SAMCO – Sub-assistant community medical officer)

There are five medical assistant training schools run by the government which offer a four-year course. The course covers antenatal care, postnatal care and delivery care (SEARO 2004).

There are 900 students currently enrolled with a yearly intake of 300 (predominantly male) students. This course has been considered too technical for the skill level of the students involved (Bangladesh Health Watch 2008).

Family welfare visitors

There are 12 training institutes for Family Welfare Visitors which are managed by the National Institute of Population Research and Training (Bangladesh Health Watch 2008).
Community-based skilled birth attendants

The Obstetrical and Gynaecological Society of Bangladesh runs six-month training courses for community-based skilled birth attendants. This course includes 4 weeks of lectures, 13 weeks clinical practice in a hospital, 8 weeks practice at the community level and 1 week of final evaluation. Students must carry out 20 deliveries during training.

Training is conducted through Family Welfare Training Institutes, Nursing Institutes and Mother and Child Welfare Centres. There are 480 students trained annually in antenatal care, normal home delivery, postnatal care, newborn care, identifying and referring complications, clinical midwifery practices and community midwifery practice.

Following assessment at the end of the course graduates are registered. There have been plans within the Ministry of Health and Family Welfare (MoHFW) to scale up this training (Bangladesh Health Watch 2008; SEARO 2004; UNFPA and ICM 2006).

In the NGO sector, the Bangladesh Red Crescent Society provides a one-year midwifery program to young women with no nursing qualifications (SEARO 2004).

Twenty-two percent of traditional birth attendants have received training, with 56.5% of trained traditional birth attendants receiving their training from the government (MoHFW Bangladesh 2008).

Community health workers

Community health workers receive minimal training. This can involve 14 to 20 days training which is provided by the program that has hired them, for example, BRAC2, the NGO Service Delivery Program or the Urban Primary Healthcare Project (Bangladesh Health Watch 2008). The majority (90.8%) of Community health workers have received training of some kind, with 46.5% receiving training from NGOs (MoHFW Bangladesh 2008).

Village doctors

Village doctors have a low level (three to six months) of formal training from private providers (Bangladesh Health Watch 2008).

For more information on pre-service and in-service training please refer to Appendices 1 and 2.

2 Non-government organisation, formally known as the Bangladesh Rehabilitation Assistance Committee

COUNTRY REGISTRATION

The Bangladesh Nursing Council is responsible for registration of all nurses and midwives as outlined in the Bangladesh Nursing Council Ordinance 1983 (Ministry of Law Justice and Parliament Affairs Bangladesh 1983).

Applicants are eligible for registration following the successful completion of the four-year Nursing and Midwifery Certificate. Registration is renewed every five years (ANMC 2009).

HUMAN RESOURCE FOR HEALTH POLICY AND PLANS

Bangladesh Health Workforce Strategy 2008

The aim of this strategy is to enable all people to have equitable access to effective health services by placing an optimum number of competent and motivated health personnel at all levels.

There is a focus on integrating the system of managing human resources across the public, private and NGO sectors. This includes developing an accreditation system which will span all of these sectors.

The strategy includes measures to improve health workforce planning including the development of a human resource master plan, improve incentives to work in rural and remote areas, integrate more community-focused aspects into training programs and improve the quality of health workforce education and planning, which includes improving the capacity of teaching and training institutions with a shift from a more knowledge-based to a skills-based approach. The plan also focuses on stewardship (regulation of health human resources), recruitment and career development and retention, performance management processes, leadership and coordination of human resource (HR) functions, public-private partnerships, effective financing and an integrated human resource management information system.

HRH is also included in the Bangladesh Health Master Plan (2010-2040). For more information refer to Appendix 3.
MATERNAL, NEONATAL AND REPRODUCTIVE HEALTH POLICY AND PLANS

The aims of the Maternal Health Strategy are to... ensure the right people with the right skills are trained to provide quality maternal health services at all levels of the health system.

Two policies are used to direct maternal, neonatal and reproductive health – the Population Policy (MoHFW Bangladesh 2004) and the National Strategy for Maternal Health (MoHFW Bangladesh 2001).

The goal of this policy is to improve the health and living conditions of the population and reduce the population growth rate. It focuses specifically on vulnerable groups and under serviced areas.

Included in this policy are aims to make reproductive health and family welfare services available to all sections of society, reduce maternal mortality by providing antenatal care, safe delivery practices, emergency obstetric care and postnatal care, delay first pregnancy for adolescent women, increase the number of deliveries attended by a skilled birth attendant (with the aim of 100% by 2010) and include reproductive health education in school curricula.

Human resource development is included in point 4.5 of this policy. It has a strong focus on improving training for HRH, with measures to incorporate population, family planning, maternal, child and reproductive health into medical education curriculums to strengthen training in policy and management (MoHFW Bangladesh 2004).

National Strategy for Maternal Health 2001
The aims of the Maternal Health Strategy are to strengthen the provision of essential (including emergency) obstetric care and improve referral and utilisation of facilities, improve the nutritional status of women and adolescent girls, ensure the right people with the right skills are trained to provide quality maternal health services at all levels of the health system, promote women-friendly health services and to bring about positive changes in the perception and behaviour of individuals, families, service providers and the community to support women in their realisation to their right to safe motherhood and a life free from violence and discrimination.

Included are plans to provide one community midwife for every 18,000 community clinics and ensure the capacity and quality of training institutes through accreditation (MoHFW Bangladesh and UNFPA 2004).
REMUNERATION AND INCENTIVES

Lack of incentives and supervision has contributed to doctors spending more time in private practice at the expense of services at public posts.

A number of cadres have reported earning over 10,000 Taka (USD$147) a month. Eighty percent of paraprofessionals, 36% of nurses, 35% of Community health workers, 14% of traditional healers and 9% of traditional birth attendants report earning over this amount (Bangladesh Health Watch 2008).

Community-based skilled birth attendants earn an average monthly income of 7,000 Taka. Most receive extra incentives as gifts from clients including money and clothing (Bangladesh Health Watch 2008). The majority (74%) expressed satisfaction with the financial benefits. Community health workers receive different remuneration depending on which program they are working with.

BRAC community health workers earn approximately USD$4.70 a month from sales. NGO Service Delivery Program community health workers earn approximately USD$6.27 a month from sales and earn a 50% commission for referring clients to health centres. Community Health Workers working with Urban Primary Health Care Project receive salaries that range from USD$31 to $62 a month (Bangladesh Health Watch 2008).

Traditional birth attendants are often motivated by a sense of obligation to help their community, especially neighbours and relatives. They are often compensated with small items such as a meal or soap from poorer families and a sari from wealthier households (BRAC 2001).

Lack of incentives and supervision has contributed to doctors spending more time in private practice at the expense of services at public posts (MoHFW Bangladesh 2008).

KEY ISSUES OR BARRIERS

- There is a high doctor to nurse ratio across the country which is more pronounced in some areas. In some areas this is more pronounced. For example, in Sylhet there is one nurse to 10 doctors (Bangladesh Health Watch 2008).
- Rapid population growth means that even if doctor training rates increase at the current rate, the doctor to population ratio will remain the same (Bangladesh Health Watch 2008).
- Low income and lack of career prospects have been cited as reasons for dissatisfaction with health occupations (Bangladesh Health Watch 2008).
- Family welfare visitors have sometimes been noted to be hesitant to offer services to the poor (Chaudhury and Hammer 2004).
- Lack of opportunity for promotion means that many health care professionals are seeking employment with NGOs or private sector employees (MoHFW Bangladesh 2008).
- Two key workforce issues are vacant posts and absenteeism. Twenty six percent of public health positions are vacant nationwide. Although the overall doctor density rate is thought to be 20 to 100,000, 41% of posts are vacant and a study found that in 42% of posts the doctor was found to be absent, bringing the density down to 8.4 for every 100,000. Absenteeism was found to be roughly 40% in upazila and 74% in upgraded union family welfare centres. Many public doctors use the afternoons to see private patients and are therefore not available to see public patients (Chaudhury and Hammer 2004).
- There is a high number of vacant teaching posts leading to overcrowding in teaching facilities (Bangladesh Health Watch 2008).

3 Upazila: sub-district health complex
KEY INITIATIVES

13,500 community-based skilled birth attendants are needed by 2010 to cover the whole population – a number that is unlikely to be achieved.

Community-based skilled birth attendants
In March 2003, WHO, UNFPA and the Obstetrical and Gynaecological Society of Bangladesh started the Community-Based Skilled Birth Attendant and Services Program. This is a six-month program to up-skill family welfare assistants and family health assistants to carry out safe delivery at home. By the end of 2000, 4,000 skilled birth attendants and 40 supervisors had been trained across 56 districts (of the total 64 districts).

The program started with a train-the-trainers course run by senior professors of medical or nursing schools. Trainers were from district hospitals, maternal and child welfare centres and from the health department. They went on to train family welfare assistants and family health assistants in 74 skills covering the antenatal, birth and postpartum periods. At the end of each course the Bangladeshi Nursing Council examined and certified trainees as skilled birth attendants.

Between 2006 and 2008, 1,739 community based skilled birth attendants delivered 65,000 babies and referred 21,000 complicated cases amongst women who had previously only been assisted by a relative or traditional birth attendant. However, 13,500 community-based skilled birth attendants are needed by 2010 to cover the whole population; a number that is unlikely to be achieved (Ahmed and Jakaira 2009).

Maternal and Child Health-Family Planning Program
The Maternal Child Health Family Planning Program started in the 1970s. It aims to decrease rapid population growth by taking information about family planning and contraception into women’s homes (as women were often confined to their homes and unable to access health care). A large number of employees were hired, with 23,000 government field workers and 12,000 NGO workers hired to go from household to household in communities targeting married women aged between 15 and 49.

The Maternal Child Health Family Planning Program is dependent on donor funding, with 37% of funds provided by the government. As the population grows and future funding is uncertain a strain will be put on this service (Routh et al. 2001). A study in urban areas in 2001 found that removing the doorstop service and encouraging mothers to obtain their contraception from clinics led to an increase in social marketing campaigns carried out in the private sector.

Drug stores and supermarkets increased their contraceptive sales, and there was an increase in utilisation of maternal health services at clinics without a decline in the use of contraception (Routh et al. 2001). There was also the challenge to integrate the services that had been offered into a more comprehensive health package (Ahsan and Thwin 1998).

Perinatal care project
This project was run by Women and Children First (UK), the Diabetic Association of Bangladesh and the London Centre for International Health and Development. The program ran in three districts from 2002 to 2008. It facilitated women’s groups to identify health problems associated with pregnancy and child birth and develop possible solutions to these problems.

Some of the outcomes were measures to develop community awareness, increase communication, support and education amongst the women in the villages and improve communication with health care staff located at clinics. In response to feedback from the women’s groups, training was held with health care staff to improve their skills, their level of cultural appropriateness and their ability to relate to the women from the villages (Khan et al. 2007; Women and Children First (UK) 2009).
CRITIQUE OF DATA SOURCES

Documentation

A significant amount of information was available on the health workforce and MNRH in Bangladesh. Most sources of information could be quickly retrieved from the internet. Some government documents, however, were more difficult to access such as the National Strategy for Maternal Health (2001).

The main source of information on the health workforce for MNRH was the Bangladesh Health Watch report, Health Workforce in Bangladesh (Bangladesh Health Watch 2008). This report explores the density and profile of health care providers with a special focus on providers servicing the rural community. It provided more in-depth information on issues of training, recruitment, incentives, job satisfaction and job performance. This information was based on inventory lists of health workers derived from informal discussions with community members and surveys and interviews conducted with health care staff and key informants (Bangladesh Health Watch 2008).

A number of different sources were used to obtain numbers of workers in each cadre (AAAH 2008; Bangladesh Health Watch 2008; MoHFW Bangladesh 2009b, MoHFW Bangladesh 2009c; WHO, 2009). Where there were conflicting numbers the Ministry of Health and Family Welfare human resource development data set was used (MoHFW Bangladesh 2009b).

The information for this data set came mainly from the Human Resource Department in the Ministry of Health; other sources were various government offices such as the Nursing Council. It was not possible to obtain consistent information about the disaggregation of the workforce in different cadres, with certain information being available for some cadres but not others. It was also not possible to locate information outlining the geographic distribution of health workers.

Reviewers

This profile was reviewed by the program leader for a key NGO working in the field. They did not include written feedback on the document but commented that some of the figures were outdated. It was also reviewed by a key academic working in the field who provided short comments and feedback about the accuracy of certain aspects of the profile. They commented on the accuracy of the maternal mortality ratio and provided additional information on the current state of health care centres.

The Bangladesh Health Watch report provided more in-depth information on issues of training, recruitment, incentives, job satisfaction and job performance.
REFERENCES


Bangladesh Health Watch 2008, Health Workforce in Bangladesh: Who constitutes the healthcare system?, James P. Grant School of Public Health, Centre for Health System Studies, BRAC University, Dhaka, Bangladesh.


BRAC 2001, Skilled Attendance at Delivery in Bangladesh: An ethnographic study, BRAC Research and Evaluation Division and the University of Aberdeen, Dhaka.


SEARO 2004, Improving Maternal, Newborn and Child Health in the South-East Asia Region: Bangladesh, World Health Organisation, South-East Asia Regional Office.


UNFPA and ICM 2006, Investing in Midwives and Others with Midwifery Skills to Save the Lives of Mothers and Newborns and Improve their Health, United Nations Population Fund and International Confederation of Midwives, New York.


## APPENDIX 1

### PRE-SERVICE EDUCATION AND TRAINING IN BANGLADESH

(Adapted from Bangladesh Health Watch 2008; MoHFW Bangladesh 2009b)

<table>
<thead>
<tr>
<th>CADRE</th>
<th>INSTITUTION/ORGANISATION</th>
<th>QUALIFICATION</th>
<th>LENGTH OF STUDY</th>
<th>ENROLMENT/GRADUATION</th>
</tr>
</thead>
</table>
| Doctor                               | 1 medical university (government)  
23 postgraduate medical institutes (government)  
15 medical colleges (government)  
34 private medical colleges  
5 private postgraduate medical institutes |                                                    |                  | Medical Doctor (MD) – 59 per year  
Diploma – 520 per year                                                          |
| Postgraduate medical course          | Bangabandhu Sheikh Mujib Medical University  
70 nursing institutes (51 government, 19 private)  
3 colleges of nursing  
College of Nursing (affiliated with Dhaka University)  
International University of Agriculture, Business and Technology (Dhaka) | Graduate Degree  
Diploma of Nursing (including one year of midwifery training)  
Bachelor of Science Nursing  
Bachelor of Science Public Health Nursing | 4 years  
4 years  
4 years | Total enrolment for postgraduate medical courses is 2042 graduates  
1200 graduates per year; 2280 admitted each year (1790 in public institutes, 490 in private)  
Yearly intake 1135  
65 currently enrolled |
| Nurse/midwife                        | 70 nursing institutes (51 government, 19 private)  
3 colleges of nursing  
College of Nursing (affiliated with Dhaka University)  
International University of Agriculture, Business and Technology (Dhaka) | Diploma of Nursing (including one year of midwifery training)  
Bachelor of Science Nursing  
Bachelor of Science Public Health Nursing | 4 years  
4 years | 1200 graduates per year; 2280 admitted each year (1790 in public institutes, 490 in private)  
Yearly intake 1135  
65 currently enrolled |
| Senior staff nurse (with optional 1-year midwifery course) | 4 years | 1 year |
| Midwife                              | Bangladesh Red Crescent Society  
Village doctor  
Community-based skilled birth attendant  
Family welfare visitor  
Government or private facilities (training in midwifery and clinical contraception management; 12 institutes across the country) | Midwifery | 4 years  
3–6 months  
6 months | Graduates, 480 per year  
1.5 years|
| Village doctor                       | Semi-formal, unregulated private institution |                                    | 3–6 months |                                                    |
| Community-based skilled birth attendant | Family welfare visitor training or nursing institutes and mother and child welfare centres |                                    | 6 months | Graduates, 480 per year |
| Family welfare visitor               | Government or private facilities (training in midwifery and clinical contraception management; 12 institutes across the country) |                                    | 1.5 years |                                                    |
| Medical assistant/community medical officer/sub-assistant community medical officer (SAMCO) | Medical Assistant Training School (5 across the country; government-run) |                                    | 3 years | Yearly intake, 300 (mostly males) |
| Community health worker              | BRAC |                                    | 15–20 days |                                                    |
APPENDIX 2

IN-SERVICE TRAINING IN BANGLADESH

(Adapted from Bangladesh Health Watch 2008; MoHFW Bangladesh 2009b)

These are informal short courses including specialised training in areas such as neonatal resuscitation, reproductive health for the disabled etc.

<table>
<thead>
<tr>
<th>CADRE</th>
<th>INSTITUTION/ORGANISATION</th>
<th>QUALIFICATION OR CURRICULUM</th>
<th>LENGTH OF STUDY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Community health worker</td>
<td>UNICEF</td>
<td>First workshop: 5 days for unit 1, getting started, unit 2, care during pregnancy</td>
<td>14 days</td>
</tr>
<tr>
<td></td>
<td>Community-based maternal and newborn health</td>
<td>Second workshop: 5 days for unit 3, care during delivery and immediate post partum</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Third workshop: 4 days for unit 4, care after delivery (postnatal visits)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>The plan is to have a 4-week break between workshops to enable community health workers to get practical experience in their communities supported by a supervisory visit</td>
<td></td>
</tr>
<tr>
<td>Community-based skilled birth attendant training (UNFPA and ICM 2006)</td>
<td>Existing community health workers</td>
<td>6-months training</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>9-months supervision</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>3-months coursework</td>
<td></td>
</tr>
<tr>
<td>Nurse</td>
<td>4 divisional continuing education centres</td>
<td>6-months training</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2 rural teaching centres for continuing education</td>
<td>9-months supervision</td>
<td></td>
</tr>
<tr>
<td></td>
<td>and inservice training for nurses</td>
<td>3-months coursework</td>
<td></td>
</tr>
</tbody>
</table>
## APPENDIX 3

### COUNTRY REGISTRATION IN BANGLADESH

<table>
<thead>
<tr>
<th>CADRE</th>
<th>LEGISLATION</th>
<th>RESPONSIBILITY FOR REGISTRATION</th>
<th>LICENSING AND RENEWAL</th>
<th>ELIGIBILITY REQUIREMENTS FOR REGISTRATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Registered nurse</td>
<td>The Bangladesh Nursing Council Ordinance was enacted in 1983 and prescribes functioning of the Council.</td>
<td>Bangladesh Nursing Council</td>
<td>Renewal takes place every 5 years. There is no continuing education requirement</td>
<td>4-year Diploma in Nursing and Midwifery or equivalent certificate and testimonial</td>
</tr>
<tr>
<td>Registered midwife</td>
<td>The ordinance governs nursing, midwifery and allied qualifications granted by recognised institutions in Bangladesh and institutions outside of Bangladesh; conduct of national examinations; registration of nurses, midwives and others possessing recognised nursing or allied qualifications and maintenance of separate registers; withdrawal of registration and power to make regulations; prescribing educational standards, including teacher qualifications, courses of training, examinations, facilities etc. (Bangladesh Nursing Council Ordinance 1983).</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Family Welfare Visitors</td>
<td>Family Welfare Visitors may also undergo 18 months of training at the family welfare visitor training institutes and then be eligible for registration as a community auxiliary midwife by the Bangladeshi Nursing Council.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Community-based skilled birth attendant</td>
<td></td>
<td>Registration takes place following the successful completion of an assessment at the end of the 6-month training course</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## APPENDIX 4

### COUNTRY HUMAN RESOURCE FOR HEALTH POLICIES IN BANGLADESH

<table>
<thead>
<tr>
<th>NAME OF POLICY</th>
<th>RELEVANT INFORMATION FOR MNRH AT COMMUNITY LEVEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bangladesh Health Workforce Strategy 2008</td>
<td>The aim of this strategy is to enable all people to have equitable access to effective health services by placing an optimum number of competent, sensible and motivated health personnel at all levels. There is a focus on integrating the system of managing HR across the public, private and NGO sectors. This includes developing an accreditation system which will span all these sectors.</td>
</tr>
<tr>
<td></td>
<td>The strategy includes measures to improve health workforce planning including the development of an HR master plan, improve incentives to work in rural and remote areas, integrate more community-focused aspects into training programs and improve the quality of health workforce education and planning, which includes improving the capacity of teaching and training institutions with a shift from a more knowledge-based to skills-based approach.</td>
</tr>
<tr>
<td></td>
<td>Other focuses of the plan are stewardship/regulation of health HR, recruitment and career development and retention, performance management processes, leadership and coordination of HR functions, public-private partnerships, effective financing and an Integrated Human Resource Management Information System.</td>
</tr>
<tr>
<td>Master Plan 2010-2040</td>
<td>The philosophy of the master plan is to create the right number of nurses and paramedics with right skills and motivation, so that they could be rightly placed to render satisfactory services to the nation.</td>
</tr>
<tr>
<td></td>
<td>The goal is to minimise acute shortage of HRH in particular nurses and paramedics. The objectives are: to increase the number of nurses/paramedics; to increase enrolment; to upgrade quality of services, and to improve quality of education (AAAH 2008, p. 11).</td>
</tr>
</tbody>
</table>
## APPENDIX 5

### MATERNAL, NEONATAL AND REPRODUCTIVE HEALTH POLICY IN BANGLADESH

<table>
<thead>
<tr>
<th>NAME OF POLICY</th>
<th>RELEVANT INFORMATION FOR MNRH AT COMMUNITY LEVEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population Policy</td>
<td>The goal of this policy is to improve the health and living conditions of the population and reduce the population growth rate which has been identified as the nation’s greatest problem. It focuses specifically on vulnerable groups and underserviced areas. Included in this policy are aims to provide reproductive health and family welfare services to all sections of society, reduce maternal mortality ratio by providing antenatal care, safe delivery practices, emergency obstetric care and postnatal care, delay first pregnancy for adolescent women, increase the number of deliveries attended by a skilled birth attendant with the aim of 100% by 2010 and include reproductive health education in school curriculums. Human resource development is included in point 4.5 of this policy. It has a strong focus on improving training for human resources for health, with measures to incorporate population, family planning, maternal child health, reproductive health medical education curricula, to strengthen training in policy and management (MoHFW Bangladesh 2004).</td>
</tr>
<tr>
<td>National Strategy for Maternal Health 2001</td>
<td>The aims of the Maternal Health Strategy are to strengthen the provision of essential (including emergency) obstetric care and improve referral and utilisation of facilities, improve the nutritional status of women and adolescent girls, ensure the right people with the right skills are trained to provide quality maternal health services at all levels of the health system, promote women-friendly health services and to bring about positive changes in the perception and behaviour of individuals, families, service providers and the community to support women in their realisation to their right to safe motherhood and a life free from violence and discrimination. Included are plans to provide one community midwife for every 18 000 community clinics and ensure the capacity and quality of training institutes through accreditation (MoHFW Bangladesh and UNFPA, 2004).</td>
</tr>
</tbody>
</table>
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[www.ni.unimelb.edu.au](http://www.ni.unimelb.edu.au)

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