WHO-MOH Facilitators Meeting on Emergency & Essential Surgical Care

11-12 August 2010

Thimphu, Bhutan
**Background**

Of the global disease burden, 11% is attributable to treatable surgical conditions. Because most district hospitals lack specialists, it is the general doctors, nurses and paramedics who manage injuries (falls, burns, road traffic-, domestic violence- and disaster-related injuries) and pregnancy-related complications. It is important that these front line health providers are appropriately trained in emergency, anesthesia and surgical care (including obstetrics and trauma) at district hospitals and Basic Health Units (BHUs) in order to prevent unnecessary referrals and subsequently reduce disability and mortality. WHO established a *Global Initiative for Emergency & Essential Surgical Care* which consists of stakeholders (academicians, NGOs, health authorities, professional societies, health economists, health providers) to support capacity building in countries.

Bhutan has a population of 750,000 people and has 20 districts. Field visits to health facilities (National Regional Hospital, Paro District Hospital, Drugyel Basic Health Unit) were made with the team consisting of personnel from the Ministry of Health (MOH) and WHO for discussions with the directors and staff regarding the need for timely basic emergency, anesthesia, surgical interventions to reduce unnecessary referrals, disability and death.

The Royal Government of Bhutan MOH identified the need to strengthen surgical care at the district hospital and Basic Health Unit (BHU) levels and requested that the WHO Emergency & Essential Surgical Care (EESC) program provide technical expertise for a proposal to strengthen surgical services. WHO developed tools for strengthening district surgical services, and the MOH appreciated the opportunity to adopt the tools for health systems strengthening through improving the availability of emergency, anesthesia and surgical services.

Meetings were held with the WHO Representative (WHO Bhutan), Director General (Department of Medical Services), and Minister (Ministry of Health) on the WHO EESC program's theme which encompasses various disease-specific programs for maternal health, child health, violence and disability prevention, infection control and HIV prevention, disaster preparedness and telemedicine.

**Objective**

- To assess management of EESC in regional hospitals, district hospitals and Basic Health Units (BHUs)
- To adapt the WHO *Integrated Management for Emergency & Essential Surgical Care* toolkit for capacity building at district hospitals and BHUs
- To utilize planning tool for integration of EESC for strengthening district surgical services

**Discussions**

1. There is a severe shortage of trained human resources at all levels of care, as indicated below.
   - National referral hospital (Jigme Dorji Wangchuck National Referral Hospital): 1
   - Regional referral hospitals: 2
   - District hospitals: 30
   - BHUs, *Grade I*: 13
BHUs, Grade II: 168
- National surgical capacity: 5 orthopedic surgeons, 4 general surgeons, 1 ENT, 1 dentist oral surgeon, 1 ophthalmic surgeon
- Obstetrician/Gynecologists: 6
- Anaesthesiologists: 5
- Nurse anaesthesiologists: 17

2. There is huge burden on the referral hospital to do delayed referrals and elective minor surgical and obstetric interventions.

3. Although trained abroad, the health providers at district hospitals and BHUs often lack confidence to perform procedures and require further training to build confidence.

4. The WHO GIEESC should be explored for support by having collaborative programs with academia to support district hospitals and BHUs.

5. A few district hospitals and BHUs should be identified in year 1 to become models for expansion to other districts.

6. Districts furthest from the capital city should be included first for capacity strengthening in EESC.

7. Needs assessment is the first step to identify gaps, with subsequent development of plans to close the gaps.

8. Skills to be delivered at district hospitals and BHUs have to be developed by the specialists, which will reduce unnecessary delayed referrals.

**Recommendations & Action Plan**

In order to implement the EESC for district hospitals and BHUs, the following recommendations were made:

1. Establishment of a Technical Advisory Group (TAG) at country level will consist of the following:
   - i) WHO: Mr Dorji Phub, National Programme Officer
   - ii) Ministry of Health: Dr Dorji Wangchuk, Director General and Mr Nawang Dorji, Chief Programme Officer, HC&DD
   - iii) Coordinator: Program Officer, IC & HIV/AIDS Prevention
   - iv) Clinical Departments:
     - Orthopaedic Department (Dr Tshewang Thinley)
     - Anesthesia Department (Dr Gosar Pemba)
     - Gynaecology Department (Dr Ugyen Tshomo)
     - Surgical Department (Dr Tashi Tenzin)
     - Nursing Department (Nursing Superintendent)
     - Quality Assurance and Standardization Division (QASD)
     - Essential Medical Technology Division (EMTD)
     - Royal Institute of Health Sciences (RIHS)

2. The TAG will meet quarterly for the first year and annually until establishment and implementation of EECSC.
3. The TAG will be responsible for upgrading the knowledge of health staff and monitoring and evaluation of EESC.

4. Implementation:
   i) The anesthesia, obstetrics, orthopaedic and surgical units of the regional hospitals will be responsible for implementation of EESC in all district hospitals and BHUs.
   ii) The anesthesia, obstetrics, orthopaedic and surgical departments of JDWNRRH will be responsible for the implementation if there is no national surgeon available at those district hospitals.

5. Needs Assessment:
   i) TAG decided to perform needs assessment by the end of September at regional and district hospitals and BHUs. Any additional data as required by TAG may also be incorporated.
   ii) WHO will provide technical assistant for data entry into the WHO global database for EESC and will provide analysis by the end of November.
   iii) Based on the findings of the analysis identifying gaps in EESC in Bhutan, the TAG will indentify the level of surgical care (including obstetrics and trauma) and anesthesia care to be provided at the hospitals and BHUs by November.
   iv) WHO tools and best practice protocols posters on EESC will be provided to district hospitals for reference and management on WHO standards during the needs assessment.
   v) Organize a national sensitization workshop with technical expertise by WHO/EESC program.

6. Procedures at various levels of health centres were proposed by MOH as in Table 1.

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Speciality</th>
<th>BHU II</th>
<th>BHU-I</th>
<th>District</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Orthopaedic</td>
<td>Splinting, wound management</td>
<td>+Wound debridement, POP</td>
<td>+ External fixation, closed reduction of fractures, traction</td>
</tr>
<tr>
<td>2</td>
<td>Surgical</td>
<td>I&amp;D, suturing, control of haemorrhage, wound management, catheterisation, removal of foreign bodies</td>
<td>+ Intercostal drainage, cricothyroidotomy, burns management, cystostomy, venous cut down</td>
<td>+ Biopsy, tracheostomy, appendectomy, hydrocele, hernias, colostomy, male circumcision</td>
</tr>
<tr>
<td>3</td>
<td>Obstetrics/ Gynecology</td>
<td>Normal delivery, episiotomy, perineal tear suturing, PPH management, removal of retained placenta separated, catheterisation</td>
<td>+ manual removal of placenta, repair of cervical tears and 3rd degree perineal tears, evacuation of uterus, vacuum extraction, eclampsia management</td>
<td>+ Caesarean section, tubal ligation, D&amp;C, laparotomy for ectopic and ovarian cyst, emergency hysterectomy, correction of uterine inversion</td>
</tr>
<tr>
<td>4</td>
<td>Anaesthesia</td>
<td>Local anaesthesia</td>
<td>+ Ketamine</td>
<td>+ Spinal, GA, regional blocks</td>
</tr>
</tbody>
</table>

7. Proposal with action plan and budget was prepared.
Conclusions

There is an urgent need to strengthen the skills of health providers at district hospitals and BHUs to enable them to routinely deliver life-saving and disability preventive emergency, anesthesia and surgical interventions (including trauma and obstetrics) as well as in disaster situations. The WHO IMEESC toolkit will be used for evidence-based needs assessment and for planning capacity building in EESC according to the recommendations and action plan developed by the TAG.

Acknowledgements

- MOH Bhutan
- WHO / Bhutan
- WHO / SEARO

Meeting Participants

**Royal Government of Bhutan**

1. Mr Zangley Dukpa, Minister of Health, MOH Bhutan
2. Dr Gado Tshering, Secretary in MOH Bhutan
3. Dr Dorji Wangchuk, Director General, DMS
4. Mr Nawang Dorji, Chief Programme Officer, HC&DD
5. Ms Pema Udon, Programme Officer, IC&HIV/AIDS Prevention, DMS
6. Dr Tshewang Thinley, Orthopaeic Surgeon, HoD for Orthopaeic Department, JDWNRH
7. Dr Gosar Pemba, Anaesthesiologist, HoD for Anaesthetic Department, JDWNRH
8. Dr Ugyen Tshomo, Gynaecologist, HoD for Gynaecology Department, JDWNRH
9. Dr Tashi Tenzin, Nuerosurgeon, JDWNRH
10. Mr Kaka Dukpa, Programme Officer, Essential Medical Technology Division (EMTD, DMS)
11. Mr Dechen Chophel, Chief Programme Officer, Quality Assurance & Standardization Division (QASD), MOH Bhutan
12. Ms Dechen, Administrative Officer, and staff, Paro District Hospital
13. Ms Mera Chhetri, Health Assistant, Drugyal Basic Health Unit, Paro District

**WHO**

14. Dr Amaya Maw Naing, WHO Representative of Bhutan
15. Mr Dorji Phub, National Programme Officer, WHO Country Office, Thimphu, Bhutan
16. Dr Meena N. Cherian, WHO Emergency and Essential Surgical Care, Department of Essential Health Technologies, Health Systems & Services, WHO, HQ, Switzerland