The health workforce (HWF) is primarily engaged in providing health care to the community and is the most important asset of health systems. Health systems can be strengthened only through effective HWF planning, development and management. The HWF plays a pivotal role in achieving positive health outcomes.

WHO has developed Regional Guidelines for the Development of the Health Workforce Strategic Plan in countries of the South-East Asia Region. There is a need to hold a series of trainings for planners and policy-makers to make them efficient at using these guidelines. For this, a pool of master trainers (facilitators) are needed who can deliver such training in a uniform manner.

This training module on development of the health workforce strategic plans has been prepared to help the master trainers (facilitators) organize such types of training in their respective countries.

Training Module on Development of Health Workforce Strategic Plans
Training Module on Development of Health Workforce Strategic Plans

In collaboration with National Institute of Health and Family Welfare
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Acknowledgements

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Introduction

The health workforce (HWF), defined as all people primarily engaged in action the principal intent of which is the enhancement of health, is the most important asset of the health system. Health systems can be strengthened only through effective HWF planning, development and management. The *World Health Report 2006* on the theme “Working Together for Health” clearly reflects the pivotal role of the health workforce in achieving positive health outcomes.

This module can help in:

(a) preparing for the training; and,

(b) conducting the training in a uniform manner through given exercises/case studies.

WHO has developed Regional Guidelines for the Development of the Health Workforce Strategic Plan in countries of the South-East Asia Region. There is a need to hold a series of trainings for the planners and policy-makers to make them adept at using these guidelines. For this, we need to have a pool of master trainers (facilitators) who can deliver this training in a uniform manner.

This facilitator’s guide is to help the facilitators (master trainers) in organizing training in their countries.
Table 1.1: Training of health planners and health-care managers: An overview of the course

<table>
<thead>
<tr>
<th>Duration</th>
<th>5 days</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participants</td>
<td>Health planners and managers who are responsible for the development of health policies and health plans, including health workforce planning and management.</td>
</tr>
<tr>
<td>Batch size</td>
<td>Approximately 30 persons per batch.</td>
</tr>
<tr>
<td>Facilitators</td>
<td>Master trainers with expertise in strategic planning and in training techniques.</td>
</tr>
<tr>
<td>Facilitators per batch</td>
<td>Five facilitators.</td>
</tr>
<tr>
<td>Venue</td>
<td>National-level training institutions.</td>
</tr>
</tbody>
</table>

Preparatory timelines

Three months prior to training:

Collect the following information

- National Health Policy.
- National Health Plan.
- National Education Policy/Health Science Education Policy/Higher Education Policy.
- Existing health workforce plan(s).
- Existing database of health workforce.
- Number and capacity of health science education institutions in health human resource development.
- Any health or human resource research report.
- Best practices related to health workforce placement in difficult areas.
- Other relevant documents.
Table 1.2: Training schedule

<table>
<thead>
<tr>
<th>Day</th>
<th>Session I: Registration and Inauguration</th>
<th>Session II: Introduction to Guidelines</th>
<th>Session III: Situation analysis (Lecture discussion)</th>
<th>Session IV: Group work for situational analysis (Strengths, Weaknesses, Opportunities and Threat [SWOT] analysis)</th>
<th>Session V: Problem identification and prioritization (Lecture discussion)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Day 1</td>
<td>Registration</td>
<td>Ice-breaking session</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Registration</td>
<td>Inauguration</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Registration</td>
<td>Ice-breaking session</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Day 2</th>
<th>Recap by the participants</th>
<th>Session VI, VII and VIII</th>
<th>Group work on Problem Tree Analysis, Focus Group Discussion, Modified Delphi Technique, Nominal Group Technique, Causal Web Analysis (Each session will be dealt with one group work on one technique and the group work will be followed by presentation and discussion.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Day 3</td>
<td>Recap by the participants</td>
<td>Session IX: Projection of HWF needs and demands (Lecture Discussion) Followed by Group Work on projection of HWF needs and demands</td>
<td>Session X: HWF Policy review and Identification of Strategic Area. STE Lecture discussion Followed by STE Group Work on HWF Policy Review &amp; Strategic Analysis</td>
</tr>
<tr>
<td>Day 4</td>
<td>Recap by the participants</td>
<td>Session XII: Monitoring and Evaluation (M&amp;E) (Lecture discussion) Followed by Group Work on development of indicators for M&amp;E</td>
<td>Session XIV: Logical framework Approach for the Development of Action Plan (Lecture discussion)</td>
</tr>
<tr>
<td>Day 5</td>
<td>Recap by the participants</td>
<td>Session XVII and XVIII: Presentation on action plan by participants</td>
<td>Session XIX: Brainstorming for the way forward Post-Test</td>
</tr>
</tbody>
</table>
Review all information

- Decide whether useful for training exercise.
- Make changes in the materials only if required.

Select a training venue

The training venue should preferably be a national-level training institute and must have actual experience in conducting health training.

- **A classroom that is:**
  - Available for the duration of the training, and large enough to accommodate 35 people.
  - It must be uncluttered to allow the arrangement of tables and chairs to accommodate five small groups (one facilitator, six participants) and arrangements for Powerpoint presentations.

Select experts as facilitators

- Facilitators will initially be selected from national-level training institutions and will be trained as facilitators in the Regional/National Training of Trainers (ToT) (initial training to be organized at National Institute of Health and Family Welfare, New Delhi followed at country level).
- The facilitators should be available during all the five days of the training as well as for preparatory work.
- Facilitator will be given relevant material in advance.

Prepare a training calendar

- After being trained in the national ToT, the facilitators will prepare the training calendar in consultation with the training institution. The following should be take into account:
  - the training load.
Availability of training days.
Availability of training venues.
Availability of facilitators.

Prior and after training – appraisal

- It is suggested that a regional advocacy meeting may be organized with senior officials of SEA Region countries about the importance of training in health workforce planning to get adequate support for the training.
Preparation of training

Day 1

- Help participants register.
- Conduct the facilitators’ meeting on how to organize and facilitate training.
  - Give specific and constructive feedback to facilitators as needed.
- Before the training and every day during the training, the facilitators should meet to prepare and organize materials for the next day.

Days 2, 3, 4 and 5

- Distribute the list of facilitators and participants to everyone attending the training.
- Conduct the training course.
• **Conduct the facilitators’ meeting.**
  – Give specific and constructive feedback to facilitators, as needed. Review sessions on days 3, 4 and 5 at the beginning on previous day’s activities.

• **Prepare training certificates.**
  – Write the names of the participants who completed the training.

**Post-course**

• **Coordinator should submit a report on the training course within one month of completion of the training.**

Networking, tracking and follow-up of the trainees: Attempts should be made to follow up with the trained participants at regular intervals and also network with them (through e-mail groups), which will help them keep in touch with the nodal training institutions and each other.

**Day 1: Session 1: Detailed session plan**

Registration

Session objectives

This session will enable to:

• Prepare a list of training course participants and their contact details.
• Distribute training material to the participants.

**Time**

30 minutes

**Session overview**

(A) Registration

**Materials**

• Participants’ Registration Form
• Folder/bag for each participant containing:
Day 1: Session 1

Introduction of participants
(Ice-breaking exercises)

Session objectives

This session will enable you to:

- Introduce participants and facilitators to each other.
- Create a friendly and comfortable environment in the classroom.

Time

30 minutes

Session overview

(A) Find the match: Game (5 minutes).
(B) Introduction of participants (25 minutes).

Materials

Matching picture postcards.

A. Find the match: Game (5 minutes)

- Make sure that the number of postcards is sufficient.
- Tell participants that now it is time to get to know each other a little better.
• Shuffle the pack of picture postcards and ask
  – participants to pick one card each.
• Display the rules on the pre-prepared flipchart.
• Read them aloud.

*Find the Match: Game Rules*

• Find out who has the matching card and form a pair.
• Find out from your partner (in 5 minutes) his/her name, place of work, hobbies, etc.

**B. Introduction of participants (25 minutes)**

• Once participants find their partners, help get them seated for the interaction in pairs. Ensure that the interaction ends in five minutes.
• Make participants sit in a semicircle and invite a pair to face the rest of the participants and introduce their partners. Remind participants that they have to introduce their partner in not more than one minute.

**Day 1: Session 2**

*Pre-testing*

Session objectives

This session will enable you to:

• Test participants’ knowledge prior to the training.
• Identify areas that require greater attention during the training.

*Time*

30 minutes

*Session overview*

A. Pre-test questionnaire (15 minutes).
**Materials**

Pre-test questionnaire (Hand-out 1).

Test-scoring Chart (Poster 1).

Tape to fix scoring chart in the classroom wall.

Marker pens/coloured tapes (two colours).

**A. Pré-test questionnaire (15 minutes)**

- Distribute copies of the pre-test questionnaire hand-out to all participants. Tell participants that they have 15 minutes to fill in the answers.
- Collect all the filled-in tests at the end of the stipulated 15 minutes.
- Assign a Facilitator to correct the tests and calculate the percentage of correct answers to each question by the end of Day 1.
- Plot (using coloured tape or marker pens) the percentage of correct answers to each question on the Test Scoring Chart (Poster 1).
- Display the scoring chart in the classroom. This will inform the participants about their scores before the training.
- Identify weak areas (with less than 50% correct responses) which need to be emphasized during the training.

**Participants’ expectations and training overview**

**Learning objectives**

At the end of the session, participants will be able to describe the content and methodology of the training.

**Time**

15 minutes
**Session overview**

(A) Expectations of the training (20 minutes).
(B) Training content and methodology (10 minutes).

**Materials**

Learning objectives (Poster 2)

- VIPP cards/postcard-sized chart papers cut into rectangles.
- Flipcharts and marker pens.

**A. Expectations of the training (20 minutes)**

- Greet participants and read aloud the learning objectives (Poster 2) on the poster.
- Distribute three cards to each participant.
- Ask participants to write (within 10 minutes) on each card one topic that they expect to learn during this training.
- Collect and read aloud the cards one by one. If the topic will be covered in the training, paste the card on a Flipchart under “Topics Covered”.
  
  If not, paste it under - “Topics Not Covered” and explain why.

**Topics covered:**

**Topics NOT covered:**

**B. Training content and methodology (10 minutes)**

(1) Distribute the agenda for the five-day training and ask participants to consult it for the topics to be covered.
(2) Explain that the training has been designed to enable participants to learn by doing. Therefore, it involves a variety of participatory training methods such as:
- Ice-breakers and energizers
- Group exercise/Discussion
- Matching game
- Brainstorming

(3) Explain to participants that as Facilitators throughout the course you will:
- Guide participants through course activities.
- Answer questions or find answers.
- Clarify confusing information.
- Lead group discussions, individual exercises and role-plays.
- Give individual feedback on exercises.
- Solve logistical issues (stay, transport etc).

(4) Ask participants, one by one, to suggest the ground rules for training. After the entire group agrees, write the rules on the flipchart.

(5) Paste the flipchart on a wall for viewing during the entire five days of training.

Day 1: Session – II: Introduction to health workforce: Challenges and response

Interactive introduction to Guidelines

Learning objectives

At the end of the session, participants will be able to:

- List the types and categories of HWF in their respective countries.
- List the challenges and responses related to development of HWF.

Time

1 hour 30 minutes
Session overview

- Lecture discussion.
- Participants’ opinions.
- Purpose of guidelines.
- Steps for Strategic Planning Framework.

Materials

- Hand-out

Hand-out

The WHO south-East Asia (SEA) Region has been challenged with emerging infectious diseases such as SARS and avian influenza as well as natural disasters in the past two decades. The health workforce in Member States of the WHO SEA Region faces the growing burden of both acute and chronic noncommunicable diseases that demands a continuum of care involving HWF inputs. HIV/AIDS, TB and malaria are challenges that need to be prevented and controlled. It has become important that HWF is able to provide preventive measures as well as deliver quality health care besides responding to national disasters that can cause health facilities to lose their routine functionality.

There is always a call for preparedness for public health emergencies and emerging infectious diseases. Developments in biomedical technology have made tremendous advances in diagnostic and curative facilities that require labour-intensive health-care services. Moreover, growing patients’ expectations and needs are also making new demands on the health workforce. To add to the list of health workforce problems, internal migration (rural to urban settings) and external migration (from poorer to richer countries) of trained health professionals deprive the health system of its most valuable assets, especially in developing countries where the need is critical.

Mindful of these HWF problems, the WHO South-East Asia Regional Office developed the “Regional Strategic Plan for Health Workforce Development in Countries of the South-East Asia Region” that was endorsed by the governments of all the 11 Member States at the Twenty-fourth Health Ministers’ Meeting and the Fifty-ninth Session of the Regional Committee held in Dhaka, Bangladesh, in 2006. The Dhaka Declaration on strengthening the health workforce in countries of the South-East Asia Region and the Regional Committee resolution SEA/RC 59/R6 recognize the crucial importance of human resources for health. They also outline the commitment of Member States to develop national policies.
and regulations to adequately enhance the number of HWF in service delivery through systematic development of medium-term and long-term plans.

The Member States of the Region are at different levels of development in HWF strategic planning. They thus need to systematically review their existing HWF situations and develop evidence-based national strategic plans of HWF development in line with their national health policies and health development plans. To answer the above-mentioned needs, this guideline has been developed based on the WHO-SEARO “Regional Strategic Plan for HWF Development in countries of the South-East Asia Region” and is designed to serve as a guide to develop country-specific HWF strategic plans.

**Purpose of the Guidelines**

The guidelines aim to assist countries of the WHO SEA Region to develop strategic plans for HWF. They should prove useful for HWF planners in ministries of health and departments of health planning and programme developers for HWF education, training and management. These can be used for HWF planning for a programme or project, health centre or a district hospital. The same steps can be taken and adapted to the situation.

Some countries in the SEA Region have already developed human resources for Health Master Plans. It is always important to review and revise HWF plans in the context of changing demographic trends, epidemiological patterns and changes in HWF needs with political and sociocultural changes.

These guidelines are based on the WHO-SEA Regional Strategic Plan for HWF and draw on the concept of “Scaling up Saves Lives”, a report prepared by the Global Health Workforce Alliance (GHWA) and also the “Regional Guidelines for HRM Master Plan”, a document prepared by the Asia-Pacific Action Alliance for HRH (AAAH). The guidelines portray a step-by-step development of evidence-based HWF planning bearing in mind that it consists not only of health professionals in the public sector but also community-based health workers and volunteers who are the backbone of health service delivery at the grassroots level, especially in the SEA Region.

The WHO SEA Region is committed to achieve the Millennium Development Goals (MDGs) and is revitalizing the primary health care (PHC) approach for health systems strengthening. It is timely and appropriate to develop an HWF Strategic Plan with emphasis on the PHC approach, based on evidence obtained from the actual HWF situation and HWF needs, assessment and projections. It is a reiterative planning framework whereby results of
monitoring and evaluation will contribute towards the revision of the Strategic Plan to be more relevant to the prevailing health situation and HWF needs of a country.

**The Strategic Planning Framework**

The Strategic Planning Framework consists of six steps which are:

1. Health workforce situational analysis;
2. Problem identification and prioritization;
3. Projection of HWF needs and demands;
4. HWF policy review and identification of strategic areas;
5. Formulating the Strategic Plan; and
6. Monitoring and evaluation.

**Figure 1: Health Workforce Strategic Planning Framework**
Health workforce (HWF): The central circle with three small circles within it represents the HWF in totality, consisting of public and the private sectors as well as the community-based health workers and volunteers. Their entry, sustainability and exit from the health workforce are governed by the following six major factors:

1. Education/training;
2. HWF management;
3. HWF financing;
4. HWF policy;
5. Partnerships; and

Situation analysis of HWF: Often the lack of reliable and updated data and information restricts policy-makers to develop evidence-based HWF planning. The guidelines will address data and information regarding the six major factors (represented by the six components of the outer circle) which influence HWF entry, exit and sustainability as per the HWF situation analysis.

Problem identification and prioritization: The findings of HWF situational analysis will identify HWF problems that are currently being faced and thereby help in prioritization. Member States in the SEA Region are diverse in their socioeconomic development and political and cultural background, and it is the prerogative of each country’s HWF planning team to decide on the data set and information it thinks is best analysed to reveal its country’s HWF priority needs.

Projection of HWF needs and demands: After HWF priorities have been identified, a projection of HWF needs and demands needs to be made, such as the required numbers, types of health workers, distribution and how the service need will be met, the institutional capacity to scale up production/training, and how the managerial problems will be dealt with. Thus, “HWF supply and demand forecasting/projection” is carried out using tools/instruments to obtain detailed HWF needs. It helps in estimating the possible key areas to focus on and developing strategic areas and directions.

HWF policy review and identification of strategic areas: HWF development is a political agenda. Once the problems are prioritized, the plan for the health workforce should be formulated within the context of National Health Development Plans of countries. This would involve examining the general workforce-related legislations, rules/regulations/licensing policies, and identifying any incompatibilities within the range of possible strategies to be
proposed in the HWF Strategic Plan. It is suggested that a healthy balance be maintained between the implicit and explicit health policies and a policy dialogue be contemplated, if necessary, for sensitive policy issues so that the Country Strategic Plan (CSP) for HWF can be developed, adopted and implemented smoothly.

**Formulating the strategic plan:** The CSP for HWF will consist of the vision, mission, goals, objectives, strategic areas, activities and estimated budget, and the time-frame. It is also important to consider the risks, assumptions, baseline of indicators, and targets to be reached.

**Monitoring and evaluation:** The plan for monitoring and evaluation has to be developed. It is an ongoing process that will be refined and updated as required, on the basis of the results of monitoring and evaluation, including the feedback, and course correction aimed at improving the health workforce situation according to a country’s needs.

These guidelines will touch on the above topics that constitute the planning framework.

**Day 1: Session – III & IV: Situation analysis of health workforce**

**Learning objectives**

At the end of the session, participants will be able to:

- List the steps for situation analysis.
- List the data and information to be analysed.
- Do analysis of the situation.

**Time**

3 hours

**Session overview**

(A) Lecture discussion about steps for situation analysis.
(B) Steps for the process of HWF.
(C) Group work for the situation analysis.
Materials

- Hand-outs
- List of HWFs (WHO template)

Hand-out:

Situation analysis of the health workforce

Countries of the SEA Region need to overcome the paucity in the HWF that has been identified as the most significant constraint in reaching the health-related Millennium Development Goals (MDGs). Current HWF policies and plans need to be further strengthened and supported. Number of HWF that are educated are too small and there are differences in salaries between public and private institutions. Furthermore, NGOs move the HWF from the public sector to the private sector and international migration adds to HWF problems.

Traditional ways do not work. Hence, it is advocated that innovative ways be adopted to rapidly scale up education and training to meet the demands of national governments, and long-term investment be undertaken on education and training, supported by national and international bodies.

With change in epidemiological trends and demography, HWF needs change. HIV/AIDS, TB, malaria and noncommunicable diseases (NCD), as well as other diseases of national concern in the Region may be considered as priority diseases. Emerging diseases like SARS and avian influenza demand labour-intensive health care- with scaling up of HWF. Insufficient capacity for HWF training, inadequate long-term financial support, migration and unjustified control of HWF production by professional associations contribute to scarcity in some categories of HWF.

Incomplete information on the national HWF situation and lack of uniformity in the classification and standardization of data, together with a decentralized framework, impede the projection of HWF needs and formulation of appropriate national HWF policies and strategies. Evidence-based planning for HWF is only possible by analysing the current situation and assessing the country’s needs against existing international or regional benchmarks. It involves analysis of internal and external environments that influence HWF capacity and performance.
1.1 Data and information to be analysed

Most of the data on HWF can be collected from the existing database, departmental archives, documents and personnel records. However, some information can only be obtained through surveys, interviews and the application of assessment tools. The following provides information and data with regard to the six main factors that influence HWF entry, sustainability and exit:

**Information regarding education and training of HWF:** Institutional capacity for training of HWF determines the numbers and competencies of available HWF in a country. The critical need for health workers in the health system demands scaling up of HR capacity, keeping quality in mind, and ensuring proper coordination with interrelated departments.

The following are the suggested information elements that need to be analysed:

1. HWF education data, relating to existing training institutions; application rate for professional health institutions; student intake and output of health professionals, by category, by year.
2. Identification of personnel and tasks is important for in-service education and training, and capacity-building.
3. Existing professional health education: Relevance of curricula to address country’s health needs, coordination between HWF production and utilization and frequency of curriculum review, update and revision.
4. Inclusion of leadership, ethical conduct, altruism, commitment, personal and professional development programmes, teamwork, partnership-building and adoption of lifelong learning practices and provision of an existing system for continuing medical education in the curriculum.
5. Existing facilities for personal and professional development of faculty.
6. Existence of accreditation system for internal and external quality assurance.
7. Professional medical and allied education research for innovations in education to address current HWF problems.

**Information regarding management of HWF:** Commitment, retention and motivation of HWF is often achieved through effective HWF management.
The following information has to be taken into account:

(1) Density and distribution of HWF assessed against national benchmarks and those mentioned in *World Health Report 2006*.

(2) System to be put in place for regular updating of HWF data.

(3) HWF distribution with regard to equitable coverage, gender equity and relevance and appropriate skill-mix.

(4) Data regarding HWF in other sectors such as the private sector and in NGOs; data regarding numbers of health workforce and their competencies and distribution.

(5) Financing of HWF consisting of salary profile of different categories of HWF, for different geographical areas, different sectors; and incentives for manning remote health centres.

(6) Sustainability of existing female health worker.

(7) HWF support for housing, healthcare, transportation, children’s education and welfare, and a working environment supportive for maximum performance; facilities and equipment, drugs, supplies and support staff.

(8) Opportunities for promotion, and personal and professional development for HWF.

(9) Data and information for causes for attrition, brain drain, migration pattern and presence of “ghost health workers” or absenteeism.

**Information regarding HWF policy and regulations:** HWF are workers with specialized functions and for whom rules, regulations and legislations that govern the general workforce apply.

Thus, it is important to analyse the existing policies:

(1) Is the HWF policy reflected in the National Health Policy of the country?

(2) Workload indicators and staffing needs for optimal allocation and deployment of staff according to population and patient loads, geographical area, and health services provided at different levels (township/sub-district or village) according to facilities and financial support available.

(3) Existence of policies regarding the deployment, recruitment, transfer, promotion, grievances and incentives, including performance-based incentives and career advancement policies.
(4) In HWF exit policy, pension and gratuity entitlements have to be taken into account.

(5) Regulations on ethical conduct, liability and quality assurance mechanisms for HWF, in both public and private sectors.

(6) Relationship between HWF and public health stands at different levels of health facilities.

(7) Coordination with other related sectors/departments.

**Information regarding HWF financing:** Adequate financing of HWF development is of crucial importance for an effective and functional HWF. Failure to address and identify the funding support of the Strategic Plan undermines successful implementation.

The following information is suggested to be taken into account:

(1) Macroeconomic profile, national health accounts and national health spending in relation to Gross Domestic Product (GDP), national budget for HRH development, other sources of funding/spending for HRH.

(2) Salary rates of different levels of HRH and other entitlements.

(3) Salary rates compared to benchmarks in other sectors.

(4) Ratio of public-to-private out-of-pocket spending for health.

(5) Health spending on non-salary finances such as support for children’s education, accommodation and transportation, etc.

(6) Multiple job holding may be a consequence of low salaries. Moonlighting in the private sector is a strategy adopted by the HWF to survive in the public sector. However, this can lower efficiency in the public sector.

(7) Supportive nature of the working environment and autonomy at work with essential logistics provided, or the lack of it.

**Information regarding HWF partnership:** National strategies, however well-conceived, are insufficient to deal with the realities of HWF challenges. National leadership and global solidarity can result in significant structural improvement in the HWF situation. Thus, partnerships are important and the following information has to be explored:

(1) Partnerships with international developmental partners for sustainable long-term investment in education and training of HWF.
(2) Existence of coordination mechanisms for international funds to align with national health priorities and effective scaling up of health workers’ training and education.

(3) Partnerships with academic and professional bodies, such as the World Federation for Medical Education, for quality assurance and accreditation.

(4) Partnerships with the Global Health Workforce Alliance and the Asia-Pacific Action Alliance of Human Resources for Health to form a platform for technical cooperation and sharing of expertise in HRH development. HWF observatories are a good way to share information and case studies with regard to HWF development.

(5) HWF issues relating to international migration require policy dialogue with international organizations such as the International Labour Organization (ILO), International Organization on Migration (IOM), and the Organization for Economic Cooperation and Development (OECD). Government-to-government negotiations in ethical recruitment practices and partnership-building becomes important.

(6) Private-public partnerships are essential not only for scaling-up of disease-specific programmes and community-based health workforce training and education to improve coverage, but also for training and development of multiple skills of the HWF.

Information regarding HWF leadership: Strong country strategies require both solid technical content and credible political support.

The following points need to be noted in this regard:

(1) Leadership development for HWF planning and management.

(2) Focal point for HWF and National Committee for HWF development, irrespective of whether a multi-stakeholder mechanism is in place or not.

Countries have to decide which data or information is the most appropriate for analysis, i.e. data that would reflect the actual situation for effective HWF planning.

1.2 Process of HWF situation analysis

(1) Setting up a multistakeholder team: Multiple factors influence health workforce planning and production, as well as its performance within the health system. Thus, the situational analysis team has to
be represented by members of the academia for HWF production and also members of health service management and deployment, planning and finance ministries, professional associations, public services, local government, community representatives, and representatives from the private sector and civil society.

The chairperson should be a senior officer who is committed to improve the HWF situation, experienced, and has contacts to communicate with relevant ministries and stakeholders to guide the team on HWF issues.

(2) **Assignment of task:** The objective of the situational analysis should be clarified and terms of reference of tasks clearly assigned. Sufficient time and adequate budget should be provided for smooth implementation and timely results.

(3) **Collection of data:** Identification of what data and information are to be collected and the method to be used for analysis have to be determined and agreed upon by the team members.

(4) **Review and analysis of data:** The collected information and data have to be assessed against the existing national benchmark (if one exists) or compared with data from countries of similar characteristics in the Region. Document reviews can also be done to confirm the HWF situation.

(5) **Compilation and analysis of findings:** The team members can then sit together and compile the findings, develop recommendations and write a report on the HWF situation.

(6) **Contents of the HWF situations analysis report:** It is not compulsory to have a document on HWF analysis. However, having one will be useful in formulating a strategic plan. The report will not be part of the plan; only a summarized finding will form the rationale of the strategic plan. Some countries would wish to do an HWF situational analysis for review of the master plan and the report would be a document for further revision and planning.

The following are the steps involved in this exercise:

(1) Introduction and background.

(2) General health profile of the country (geographical, demographic and socioeconomic situation).

(3) Status of professional health education and training.

(4) Status of HWF management.
1.3 Understanding SWOT (Strengths, Weaknesses, Opportunities and Threats) Analysis

Having been exposed to the various aspects of the managerial processes that affect organizational effectiveness, it would be desirable to know what is inherent in the organization and its environment that may affect the effectiveness of the health-care system and, if manipulated to advantage may help improve its effectiveness.

Therefore, with the help of Chief Medical Officer, try to find out what he sees as strengths of the organization to bank upon and the weaknesses to be reduced or eliminated. Similarly, find out what he perceives as threats in the environment that impinge on the optimum delivery of health services and achievement of goals and the opportunities that exist therein which could be gainfully utilized to improve performance and service delivery. Broadly speaking, strengths and weaknesses are internal to the organization and opportunities and threats are external.
List the three major strengths and three major weaknesses in terms of health workforce management as perceived by the health organization manager:

Strengths:
1. 
2. 
3. 

Weaknesses:
1. 
2. 
3. 

List the two major opportunities and two major threats.

<table>
<thead>
<tr>
<th>Opportunities</th>
<th>Threats</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>1.</td>
</tr>
<tr>
<td>2.</td>
<td>2.</td>
</tr>
</tbody>
</table>
Day 1 and 2: Session V, VI, VII, VIII: Problem identification

Learning objectives

At the end of the session, participants will be able to:

- Describe the importance of problem identification.
- List out the steps for the problem prioritization.
- Exercise the problem prioritization tools.

Time

1 hour and 30 minutes of lecture discussion.

4 hours and 30 minutes of group exercise.

Session overview

A. Lecture discussion.
B. Problem-tree analysis.
C. Focus group discussion.
D. Modified Delphi technique
E. Nominal Group Technique

Materials

Hand-outs.

Tools for problem prioritization.

Hand-out:

Problem identification

The analysis of data can help to identify HWF problems. However, their scope of analysis can be expanded and validated through further investigation, such as:

(1) Interviews with key informants, senior policy-makers in the ministry of health and other ministries, academic institutions, professional associations, health bodies and councils.
Focus group discussions with community leaders and clients of health services can give maximum results.

Surveys or discussions with health workers from different levels can give information regarding actual situation of HWF management problems.

SWOT (strengths, weaknesses, opportunities and threat) analysis and other analyses.

### 2.1 Problem prioritization

Once data and information have been analysed, it is important to establish criteria for prioritizing the problems. The following criteria can be considered:

- **Priority-setting according to national health priorities and concerns:** Workforce development and management is a political agenda and it is important that political commitment and ownership is in place and the remedies addressing the national priorities with focus on poverty reduction.

- **Priority-setting through the primary health-care (PHC) approach:** The PHC approach serves as a tool for achieving health for all through improvement of equity in health, active involvement of the community, multisectoral collaboration, use of appropriate technology and cost-effective interventions. The HWF comprises all individuals working with the intention to enhance the general health levels of the community. The PHC approach encompasses the involvement of other sectors (public, private, NGOs) and the community. The participation of CBHWs and CHVs is a manifestation of partnership with the community.

- **Priority-setting with the aim of attaining health-related MDGs:** Most Member countries are committed to attain the MDGs and have agreed that health-related MDGs can only be attained through appropriate HWF development.

- Ample evidence shows that better health coverage by community-based health workers is the key to attain the MDGs. Therefore, it is proposed that immediate and rapid scaling-up of community health workers is undertaken, and mid-level public health managers are trained to achieve every economic aspect of MDGs, paid, supervised and deployed according to need.
Millennium Development Goal 1: Eradicate poverty and hunger

Empowering nationwide community health workers and general practitioners who are the frontline healthcare givers with appropriate training for detection of underweight children under five years, health education, and training on healthy diet for midwives and CBHWs will be priority agenda items for HWF development to reach MD Goal 1.

Goal 4: Reduce child mortality

Pneumonia is a significant cause of child mortality. There is growing evidence that treatment of pneumonia at home is as good as treatment in the hospital. CBHWs will be the key actors in this innovation, and other activities such as promoting the concept of ORS and breastfeeding, etc.

Goal 5: Improve maternal health

“Skilled birth attendants for every birth” is being undertaken through an increased number of auxiliary midwives trained and deployed and, wherever possible, promotion of institutional delivery to reach this goal.

Goal 6: Combat HIV/AIDS, malaria and other diseases

Depending on the disease burden and the availability of resources, HWF planners need to forecast the need to face the challenges of HIV, TB and malaria in an integrated manner through disease surveillance and management.

Goal 7: Ensure environment sustainability: Access to safe drinking water and improvement in sanitation

HWF consisting of environmental engineers are needed to achieve this goal. Use of appropriate technology that can be applied by the community should be widely promoted.

- Multiskilled teams of health workers, working in rural and urban areas, addressing priority health needs of the country, effectively promoting the importance of preventive care and tackling the dual burden of noncommunicable and communicable diseases will be a top priority.

- **Prioritization according to cost-effectiveness of programmes for health care:** Countries in the Region need health workers to deal with the health needs of their ageing populations.

- Focusing on those categories of health workers that could reduce the need for high-cost care, such as health promoters, dieticians, trainers for physical fitness, health educators for prevention of harmful use of substances, tobacco and alcohol, and health workers in prevention and control programmes for care of chronic conditions.
2.2 Suggested tools for identifying and prioritizing key HRH policy issues

The following are useful tools that can support and prioritize HWF problems, develop HWF policy and choose an appropriate strategy to overcome the HWF problems identified.

**Problem-tree analysis:** It is a diagnostic tool for identification and prioritization of HWF problems and issues that need to be addressed by the strategic plan. It is part of the participatory method intended to create ownership and commitment among the stakeholders involved (e.g. HWF planners from MoH, beneficiaries, health workers, planners, local health committee members).

The analysis consists of the following three stages:

(1) Problem analysis;
(2) Analysis of objectives; and
(3) Analysis of strategies.

**Problem analysis:** It is of major importance with regard to project planning and it strongly influences the design of possible intervention. It includes:

**Step 1:** Verification of the subject of analysis: HWF problems.

**Step 2:** Identification of problems related to the subject, making a list of problems formulated as negative conditions regarding HWF. All participants must be given a chance to express the problems they visualize and their views must be respected.

**Step 3:** Establish the cause-and-effect hierarchy between problems.

**Step 4:** Visualization of the cause-effect relationship by means of a diagram.

**Objective analysis:** The objective analysis includes the following steps:

**Step 1:** Translation of the negative situation in the problem tree into a realized positive state (objectives), e.g. “no proper HRH data” will be converted into “improved HRH data”.

**Step 2:** Verification of the hierarchy of objectives: It is important to involve the stakeholders in discussions and to get their feedback on the objectives that need to be accomplished. Some objectives may not be
reached or may fall out of the scope of the analysis. In that case, choices will have to be made.

**Analysis of strategy:** It involves the following steps:

**Step 1:** Identification of the different possible groups of objectives contributing to a higher level (cluster) of objectives.

**Step 2:** Choice of strategy for intervention or choosing the scope of the project. When choosing the scope, some criteria have to be established and agreed upon.

**Criteria:**

<table>
<thead>
<tr>
<th>Priorities of beneficiaries</th>
<th>donor policy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urgency of need</td>
<td>sustainability</td>
</tr>
<tr>
<td>Fit with country health needs</td>
<td>available funds</td>
</tr>
<tr>
<td>Inter-linkage between clusters</td>
<td>available HR and institutional capacity</td>
</tr>
</tbody>
</table>

**Focus group discussions**

A focus group discussion (FGD) is a group discussion of approximately 6-12 persons guided by a facilitator, during which group members talk freely and spontaneously about a certain issue.

A FGD is a qualitative method. Its purpose is to obtain in-depth information on concepts, perceptions and ideas of a group. It aims to be more than a question-answer interaction. The idea is that group members discuss the issue among themselves, with guidance from the facilitator.

The FGD techniques can, for example, be used to:

1. **Focus research** and develop relevant research hypotheses by exploring in greater depth the problem to be investigated and its possible causes;
(2) **Formulate appropriate questions** for more structured, large-scale surveys;

(3) **Help understand** and solve **unexpected problem interventions**;

(4) **Develop appropriate messages for health education programmes** and later evaluate the messages for clarity; and

(5) **Explore controversial topics**.

**Strengths and limitations**

Implementation of FGDs is an *iterative* process: Each focus group discussion builds on the previous one, with a slightly elaborated or better-focused set of themes for discussion. Provided the groups have been well chosen, in terms of composition and number (see below), FGDs can be a powerful research tool that provides valuable spontaneous information in a short period of time and at relatively low cost.

An FGD should *not* be used for quantitative purposes, such as testing of hypotheses or generalization of findings for larger areas, which would require more elaborate surveys.

However, FGDs can profitably complement such surveys or other, qualitative techniques. Depending on the issue, it may be risky to use FGDs as a tool by itself. In group discussions, people tend to centre their opinions on the most common ones, such as on “social norms”. In reality, opinions and behaviour patterns may be more diverse. Therefore, it is advisable to combine FGDs with at least some key information and in-depth interviews. Explicitly soliciting other views during FGDs should be routine as well.

In case of very sensitive topics such as sexual behaviour or coping with HIV/AIDS, FGDs may also have their limitations, as group members may hesitate to air their feelings and experiences freely. One possible remedy is the selection of participants who do not know each other (e.g. selection of children from different schools for FGDs about adolescent sexual behaviour), while ensuring absolute confidentiality.

It may also help to alternate the FGD with other methods, for example, to precede it with a self-developed role play on sexual behaviour, or to administer a written questionnaire immediately after the FGD with open questions on sexual behaviour in which the participants can anonymously state all their questions and problems.
**Modified Delphi Technique**

The Delphi technique is a widely used and accepted method for gathering data from respondents within their domain of expertise. The technique is designed as a group communication process that aims to achieve a convergence of opinions on a specific real-world issue. The Delphi process has been used in various fields of study such as programme planning, needs assessment, policy determination and resource utilization to develop a full range of alternatives, explore or expose underlying assumptions, as well as correlate judgements on a topic spanning a wide range of disciplines. The technique is well suited as a method for consensus-building by using a series of questionnaires delivered using multiple iterations to collect data from a panel of selected subjects. Subject selection, time-frame for conducting and completing a study, the possibility of low response rates, and unintentionally guiding feedback from the respondent group are areas that should be considered when designing and implementing a Delphi study.

**Steps**

*Preliminary work to be completed by the training team*

The training team must describe the problem to be addressed or the issue to be discussed.

The coordinator should open the discussion with series of questions.

**Round One – First questionnaire:**

In Round One, the First Questionnaire defines the problem or issue and asks each participant to list as many responses (ideas, solutions, approaches, etc.) as possible.

**Round One – Compiling responses:**

The training team will compile all the responses and create the Second Questionnaire.

**Round Two – Second questionnaire:**

The Second Questionnaire includes all the responses, and asks participants to evaluate each idea. Participants are asked to clarify or add to ideas, comment on the feasibility of ideas, brainstorm additional strategies to implement ideas, and suggest new ideas. Participants respond anonymously.
Round Two – Compiling responses:

Again, the training team continues to develop the list of ideas, which now includes comments, additions, clarifications and strategies. The team then develops the third questionnaire, with the additional information provided in Round Two.

Round Three – Third questionnaire:

The training team repeats the process of compiling information, sharing it with participants, and collecting feedback. The third questionnaire may ask respondents to rank ideas in order of importance, in order of timeliness, or other criteria such as “my willingness to work on this project.”

Round Three – Compiling responses:

This is the final round of compiling responses, unless the training team decides that participants need additional rounds of input and feedback.

Resolution and report

By this round, the feasible ideas have been identified, and set in priority order by participants. The training team responds to the group with the ideas or strategies, details of implementation, arranged in priority order.

Nominal Group Technique

The Nominal Group Technique (NGT) is a decision-making method for use among groups of many sizes and which want to make a quick decision such as by vote, but at the same time would want everyone’s opinions taken into account (as opposed to traditional voting, where only the group securing the maximum votes is considered)[1]. The method of tallying is the difference. First, every member of the group gives his/her view of the solution with a short explanation. Then, duplicate solutions are eliminated from the list of all solutions and the members proceed to rank the solutions in order of precedence such as 1st, 2nd, 3rd, 4th and so on. The rankings that each solution receives are totalled and the solution with the lowest figure, i.e. the highest ranking, is selected as the final decision. There are variations on how this technique is used. For example, it can identify areas of strength versus areas in need of development, rather than be used as a decision-making voting alternative. Also, options do not always have to be ranked, but may be evaluated more subjectively.
This technique was originally developed by Delbecq and VandeVen\(^2\) \(^,\) \(^3\), and has been applied to adult education programme planning by Vedros\(^4\).

\textit{Effects of NGT}

The NGT has been shown to enhance one or more dimensions of effectiveness of decision-making groups. Requiring individuals to write down their ideas silently and independently prior to a group discussion raised the number of solutions generated by groups \(^2\) \(^,\) \(^3\). Round robin polling also resulted in a larger number of inputs and fostered more equal participation\(^4\). The increased number of heterogeneous inputs led to high-quality decisions\(^5\).

As compared to interacting groups, the NGT groups provide more unique ideas, ensure more balanced participation between group members, increase the feeling of accomplishment, and provide greater satisfaction with quality ideas and group efficiency\(^6\).

\textit{Uses of NGT}

- When some group members are more vocal than others.
- When some group members think better in silence.
- When there is concern about some members not participating adequately.
- When the group does not easily generate quantities of ideas.
- When all or some group members are new to the team.
- When the issue is controversial or there is heated conflict.

\textit{Standard procedure}

Routinely, the NGT involves the following five stages:

\begin{itemize}
  \item \textbf{Introduction and explanation:} The facilitator welcomes the participants and explains to them the purpose and procedure of the meeting.
  \item \textbf{Silent generation of ideas:} The facilitator provides each participant with a sheet of paper with the question to be addressed and asks them to write down all ideas that come to mind when considering the question. During this period, the facilitator asks participants not to consult or discuss their ideas with others. This stage lasts approximately 10 minutes.
\end{itemize}
(3) **Sharing ideas:** The facilitator invites participants to share the ideas they have generated. He records each idea on a flipchart using the words spoken by the participant. The round robin process continues until all ideas have been presented. There is no debate about items at this stage and participants are encouraged to write down any new ideas that may arise from what others share. This process ensures all participants get an opportunity to make an equal contribution and provides a written record of all ideas generated by the group. This stage may take 15-30 minutes.

(4) **Group discussion:** Participants are invited to seek verbal explanations or clarifying details about any of the ideas that their colleagues have produced that may not be clear to them. The facilitator’s task is to ensure that each person is allowed to contribute and that discussions on all ideas are thorough albeit without devoting too much time on any one idea. It is important to ensure that the process is as neutral as possible, avoiding judgement and criticism. The group may suggest new items for discussion and bunch items into categories, but no idea should be eliminated. This stage lasts 30-45 minutes.

(5) **Voting and ranking:** This involves prioritizing the recorded ideas in relation to the original question. Following the voting and ranking process, immediate results in response to the question are available to participants. This allows the meeting to conclude upon reaching a specific outcome.

The number of nominal group meetings to be held will depend on the nature of the question and accessibility to key stakeholders best suited to help address the problem.

**Advantages and disadvantages of NGT**

As with any technique, there are advantages and disadvantages with NGT. One major advantage of NGT is that it avoids two problems caused by group interaction: First, some members are reluctant to publicly suggest ideas because they are concerned about criticism. Second, some members are reluctant to create conflict in groups, many people want to keep the discussions pleasant. NGT overcomes these problems as it has the clear advantage of minimizing differences and ensuring relatively equal participation. It may also be, in many cases, a time-saving technique. Other advantages include generating a large number of ideas and providing a sense of closure that is often not found in less-structured group methods.
The major disadvantage of NGT is that the method lacks flexibility in as much that it is able to deal with only one problem at a time. Also, there must be a certain amount of conformity on the part of members involved in NGT. Everyone must feel comfortable with the structure involved. Another disadvantage is the amount of time needed to prepare for the activity. There is no spontaneity involved with this method. Facilities must be arranged and carefully planned. Opinions may not converge in the voting process, cross-fertilization of ideas may be constrained, and the process may appear to be too mechanical.

**Adaptation for ill-structured problems**

Modification of NGT, undertaken by Bartunek and Murnighan[7], helps to deal with ill-structured problems. Normal ideas are generated and listed, followed by the facilitator’s questioning if the ideas are relevant to the same problem. If not, the problem is said to be ill-structured and the ideas generated are clustered into coherent groups. These clusters of ill-structured ideas are then treated as problems in their own right and the NGT procedure is applied to them. Regular breaks are taken by participants to ensure that the group members feel that they are still working on the original problem.

**Causal-web analysis: A model approach to joint programme planning**

This tool was developed by the South-East Asia Regional Office of World Health Organization, based on the concept of health viewed as a holistic notion and in the context of the primary healthcare approach. In the past 30 years, the systems approach to health services delivery has gradually tuned WHO to joint planning practices at the Country Office, Regional Office and headquarters levels.

The causal-web analysis (CWA) helps to see the broad picture of causal elements and their linkage processes. It brings key players to the planning table to work together as a team. It focuses on the need to develop comprehensive programmes rather than fragmented programmes along the “vertical lines of technical disciplines”. Health workforce planning is multidisciplinary and CWA helps to develop programme planning in an encompassing fashion.

The environment for joint planning requires enabling conditions conducive for brain-storming sessions that respect participants’ ideas, time, resources and participatory decision-making practices.
The process is described as an orderly process of:

1. Defining the problem through a causal web of causes that gives a broad picture.
2. Joint planning involves multistakeholders who are directly or indirectly connected to the problem.
3. Identifying unmet needs and demands, risk and opportunities.
4. Casual-web analysis, prioritizing the problems.
6. Charting out interventions/actions.
8. Operational planning.

**Day 3: Session IX: Projection of HWF needs and demands**

**Learning objectives**

At the end of the session, participants will be able to:

A. Do the supply analysis of HWF.
B. Do the forecasting of supply of HWF.
C. Do the demand analysis of HWF.
D. Do the forecasting of demand of HWF.

**Time**

3 hours

**Session overview**

A. Group exercise for supply analysis of HWF.
B. Group exercise for the forecasting of supply of HWF.
C. Group exercise for the demand analysis of HWF.
D. Group exercise for the forecasting of demand of HWF.
Hand-out:

*Projection of HWF needs and demands*

Health workforce planning is considered challenging as it mandates the planners to estimate the future health needs and demands based on trends in the country’s health situation, which sometimes can be unpredictable. It forces the planner to go through a systematic process to analyse the current and future HWF demand and supply for the planning period, and to take steps to match both.

Unlike many other products, HWF production involves laborious and long periods that may range from several months to seven to eight years. Therefore, it is emphasized that health workforce projections are best made long-term but action taken on a short-term basis. This chapter will outline the principles of “supply analysis and projection of supply”, “demand analysis and projection of demand”, and some of the tools that can be used to facilitate these activities. Once the gaps are identified, it is important to calculate the degree of gap. This requires demand and supply forecasting.

### 3.1 Supply analysis and projection of HWF supply

During situational analysis, the current supply of all types of HWF is analysed. The planning team has to identify and project the future supply, targeting the next 10 to 20 years. These projections can be made within the country’s existing policy framework on HWF production, and anticipating the retraction due to retirement, migration, attrition, change of profession and death.

The steps in this process include identification of specific categories of HWF as priorities for scaling up, identifying existing stock of these categories, preferably with few additional variables such as age, gender, geographical location, identifying the sources of supply, and projecting the supply. During this phase it is important to identify the net gain, adjusting for attrition, retirement and death. A simple mathematical model can be used to project the net gain.
Supply forecasting

The following factors help in supply forecasting:

1. What numbers of HWF, by category, are available currently?
2. What is the geographical distribution of different categories of HWF?
3. What is the attrition rate?
4. Exit rate for HWF and its pattern.
5. Rates of internal and external migration.
6. Recruitments from other sources: Government-to-government MoU for recruitment of HWF.
7. What categories need to be scaled up for training?
8. Is there institutional capacity for scaling up training without compromising the quality of output?
9. What is the logistic support required and the faculty needed for scaling up training?
10. How long will it take to build institutional capacity to meet the needs?
11. How much financial support will we need to meet the supply costs?
12. How to fill the supply gap?
13. Does the current HWF production policy support the proposed action to meet the supply needs?

3.2 Demand analysis and projection of demand

Demand analysis will allow the planning team to project the demand for HWF over a given period of time based on the changing health scenario of the country. There are two types of demand, one from the supplier-of-health-care side (public and private sector) and the other from patients or clients. When carrying out a demand analysis, there are many other non-health factors that need to be considered. Economic growth of the country, growth of the private health sector and patients’ changing expectations are a few factors that will shape up countries’ health service demands. For example, in a country with rapidly-expanding economic growth leading to expansion of the private health sector, health trade and tourism, demands for health workers for the private sector have to be taken into account so that the public sector will be able to attract and retain sufficient health personnel.
3.3 Methods of HWF demand projection

There are many methods that have been developed over time for health workforce demand projection of which some are basic while some require computer software applications. The basic methods that have been continuously used by many countries for demand projection are:

- HWF requirements based on population ratios;
- HWF requirements based on service demands;
- HWF requirements based on health system needs;
- Workload indicators and staffing needs (WISN).

The gaps are defined mathematically in order to project the needs in terms of numbers of different categories of HWF.

**HWF requirements based on population ratios**

Many countries use this simple method to calculate the demand for some HFW categories. In this application, the number of health personnel is estimated based on the population-to-personnel ratios. The target ratio is then applied to the projected population. For example, Sri Lanka has a norm of providing public health midwives based on the population. The government policy in the Nineties was to have one public health midwife for each three thousand people. The required number of public health midwives as of date has been calculated and projected based on current population figures, and training facilities developed to accommodate the required number of trainees.

**Requirements based on service needs**

This method is more comprehensive as it is based on the ‘met’ and the ‘unmet’ needs for health care. However, in this method the number of health personnel is calculated on the basis of the unmet service utilization data and not on the true need for health services. Also, it does not necessarily take into account the relevance or quality of health services.

**Requirements based on health system needs**

This method is based on experts’ perceptions as to what types of HWF are actually needed. The cost of the demand for services becomes a secondary consideration. The potential advantages of this method are: the demand projected is based on logical estimates and it facilitates studies on utilization of
staff ratios, encourages cost-effectiveness and efficiency, and addresses concerns regarding quality of care and usefulness of high-priority care. This method of health personnel projection is useful in countries with effective government policies for delivery of services, or countries with dominant public sectors with a strong control over the health workforce.

**Demand forecasting**

1. What type of HWF do we need most for the health system to function, according to findings of the situation analysis?
2. Which tools are to be used to project the need?
3. What is the ideal benchmark and what is the current situation?
4. What are the gaps in the optimal functioning of the health system?
5. How do we fill the gaps? Scale up production/training or scale up recruitment?
6. How much financial support will we need to fill the gap?
7. Does the current National Health Policy support the proposed action to meet the demand of the health system?

Methods and tools have been introduced in the recent past to forecast the health workforce demands.

1. **Workload indicators of staffing needs (WISN):** This is a rational method that is widely used to set the correct staffing levels in health facilities. It is useful for human resource planning and management, and gives more detailed information on staffing needs according to the workload. It is easy to calculate the HWF needs according to workload at different levels, such as national, regional and health facility-levels.

2. **The WHO model for projecting workforce supply and its requirements:** This tool consists of two microcomputer spreadsheet models for developing 10 to 30+-year projection scenarios for the supply of and requirements for human resources for health, and for studying the interactions between personnel policies, health sector costs and productivity. The models are designed for use at the national or subnational level, and users may define their projection period in the requirements model according to their needs. The model documentation describes the required and optional data inputs, suggests ways to make data collection easy, describes the
relationships among data inputs and outputs, illustrates simulated data inputs and outputs, and provides step-by-step procedures for model operation.

(3) In addition, a separate tool has been introduced for policy diagnosis and to generate dialogue, leading to a more realistic HWF planning. It is named as the “Soft PODD” and is a software tool for online policy diagnosis and dialogue. It is used for national HWF policy development and requires the input of information regarding the existing parameters of HWF and provides the user with recommendations regarding the making of HWF policy. The user can add comments and have an ongoing policy dialogue. It is a useful tool, provided the information input is accurate and reflects the actual (existing) HWF situation.

(4) The WPRO Workforce Projection Tool (WWPT): This tool is an application designed for projection of HWF needs of a country or an area. The WWPT incorporates parameters such as attrition rate, population growth, projection patterns, salaries and training costs. It was developed by the Health Systems Development Department, Health Sector Development Division, and Information Technology Group of the WHO Regional Office for the Western Pacific.

**Projection Wizard data requirements**

The Project Wizard needs several data requirements to create and/or modify a projection model. The wizard has three process steps:

**Projection Wizard – Step 1**

In Step 1, the parameters to be used in the projection are defined.

(1) **Country/area**
- Specifies which country or area the projection model is being applied to.
- This value is read-only and can be modified through the **Setup** module.

(2) **Profession**
- Defines the profession for which the projection model will be made.
- If the profession that is needed is not in the list, a new profession may be created through the **Profession** module.
(3) Inclusive years (maximum 20 years)
- Defines the scope (in years) of the projection model. The difference between the beginning year and the ending year should not exceed 20 years.
- When creating a new projection model, the starting year is set to the current year by default. Changing the starting year will adjust the Current Population, Annual Population Growth rate and Equity Factor if the data for the starting year are defined in the Country Module.

(4) Title
- Name of the projection model being created. Entry here will also be reflected as title for related reports to be generated for this projection.

(5) Current population
- Relates to the current population of the country or areas to which the projection model is being applied. This is usually based on the most recent census or official report of the country/area.
- This value changes whenever the starting year is modified. The default population for any year may be defined through the Country Module.

(6) Annual population growth rate
- Rate at which the country/area’s population grows on an annual basis. This is usually based on the most recent census or official report of the country/area.
- The value changes whenever the starting year is modified. The default growth rate for any year may be defined through the Country Module.

(7) Equity factor
- The multiplier assigned for each country/area that is based on the proxy value human development index (HDI), ethnicity and race, and economic statistics as expressed in real % growth in GDP of countries and areas. Weights have been attributed to these factors as determinants to the production and deployment of human resources for health. More workers are envisioned to be produced and deployed to countries/areas where their equity factors are high.
• This value changes whenever the starting year is modified. The default equity factor for any year may be defined through the Country Module.

(8) **Comparison with other professions**

• Comparison is based on the current number of a particular profession being projected against another profession. It provides a preview of a country or area’s skill-mix.

• Used only if it is necessary to do a comparative analysis of skill-mix from the selected country/area.

*Projection Wizard – Step 2*

**Step 2** requires information regarding category-specific variables. When creating a new projection model, the initial data are automatically loaded. These initial data can be modified through the Category Module.

(1) **Category**

• Lists all categories available for a particular profession. Check categories to include them in the projection. Delete them if you wish to remove them.

• You cannot remove categories that are selected in the Ratio to Other Profession field from *Projection Wizard–Step 1*.

(2) **Number at the beginning of year**

• Estimated population of the specified professions for the current year.

• The value should not be below zero (0).

(3) **Attrition rate**

• The rate of exit (regardless of form) from a profession, computed annually for the particular profession.

• The value should be in percentage form (e.g. 1.0 here means 1.0% attrition rate).

(4) **Profession/category to population ratio**

• Ratio of a particular profession/category to the country/area population for the current year.

• The total population ratio for all categories should be less than the Profession to Population Ratio field from the *Projection Wizard-Step 1* form.
(5) **Current salary cost**
- Average annual salary of a profession at entry-level post.
- The value should not be below zero (0).

(6) **Current cost to train**
- Average cost to train and prepare a graduate of a given profession.
- The value should not be below zero (0).

*Projection Wizard – Step 3*

**Step 3** requires the user to make assumptions that will calculate the input data needed to progressively make an estimate based on historical information.

When creating a new projection model, the initial data are automatically loaded.

The initial data can be modified through the **Category Module**.

(1) **Production pattern**
- Users will have to get the average production of graduates of the health profession being projected from the previous 3-5 years. This will be used as the multiplier to estimate the production of graduates based on the desired number of years.
- The value should not be below zero (0).

(2) **Maximum growth allowed in budget**
- User will have to compute for the number of new entrants in the sector of a particular profession above the budget received for the current year. Then, make an estimate of new entrants anticipated to enter the sector based on the annual budget.
- The value should not be below zero (0).

**Group exercise – Projection of HRH Needs**

*Objective:*

The objective of this exercise is to make the participant apply the HRH assessment tool in the context of specific types of human resources in their states.
Tasks

(i) Project the HRH (ANMs, doctors, specialists) needs in rural areas of your state using HRH population norm for the year 2010, 2011, 2012.

(ii) Project the current HRH (ANMs, doctors, specialists) needs in rural areas of the country.

(iii) Calculate the shortfalls in the health manpower as above for the years 2010, 2011 and 2012.

Note:

(i) Population norms: (example of India)
   ANM: 1 per 5000 population
   Doctor: 1 per 30,000 population
   Specialists: 4 per 120,000 population

(ii) Please refer the data sheet provided to you for projected rural population, annual growth rate of population, etc.

(iii) You may presume an approximate rate for your state for normal annual growth rate and attrition rate.

(iv) Formula for Calculation of Projection of Need based on Population Ratio:
   Need = Population ratio X population (including growth rate of production of ANMs, doctors in your state each year)
   Actual = Number +/- Normal Growth/attrition rate

(v) You are given the following data:
   (1) State Programme Implementation Plan.
   (2) Extract from Health Information of India, 2005.
   (3) National Family Health Survey – 3 (NFHS – 3): Factsheet of your state.
   (4) Extract from District Level Household Survey.
   (6) Extract of IPHS requirements.
Day 3: Session X: The HWF policy review and identification of strategic areas

Learning objectives

At the end of the session, participants will be able to:

(A) Review the existing policy related to HWF.
(B) Identify the strategic areas.

Time

3 hours

Session overview

(A) Lecture discussion about the policy review method.
(B) Exercise to find out strategic areas.

Materials

- Hand-outs.
- National policies.

Hand-outs:

The HWF policy review and identification of strategic areas

Review of existing HWF policy

Most Member States in the SE Asia Region have an HWF policy included in their National Health Policy that is consistent with their overall national health development plans. The HWF policy of a country is an expression of its commitment to achieve the goals set according to HWF priorities. It encompasses the framework and main strategies within which HWF development activities can be coordinated and implemented.

At this point, when priority HWF needs have been identified, it is appropriate to review the existing HWF policy and then identify the strategic areas for HWF planning.
**Step 1:** Examine in detail the country’s health policy framework within which the national health development plans have been developed. So the challenges of health workforce development are seen in the broader policy context.

**Step 2:** The existing health workforce-related legislations, regulations and policies in the country are examined in order to ensure that the existing policy environment is favourable for its proposed HRH development initiatives. It also helps identify elements that could hinder the proposed HRH development initiatives and new strategies to the HRH plan; if any such elements are detected, they must be addressed.

**Step 3:** Acknowledge that the health workforce is governed by and subjected to existing rules, regulations and policies and legislation that are applicable to the general workforce. Examine the general workforce-related legislations, rules and regulations, and policies, and identify incompatibilities with the range of strategies that would be proposed in the HRH strategic plan. If any are identified, ways to overcome them need to be identified and a more formal policy dialogue needs to be held to bring about favourable amendments or adopt new policies. It is suggested that a health balance between implicit and explicit health policies is maintained when dealing with sensitive policy issues.

*Figure 2: Reviewing HWF policy for HWF planning*
4.2 Identifying strategic areas

The HWF strategic areas are identified based on the assumption that:

- the national health development plans have been developed taking into account the need for demand and supply forecasting that is carefully examined within the country’s health policy and legislative framework;
- the planning framework should encompass the country’s HWF policy and legislative content in order to ensure that unfavourable elements are minimized;
- calculation of the present and future demand for HWF based on the country’s existing and projected health demands and needs which are well reflected;
- The framework should also encapsulate the current HWF development capacity in terms of infrastructure, as well as academic and non-academic inputs;
- Based on the situational analysis, the recommended actions need to be examined and inventories of the planning framework should be set up.

The HWF needs in the SEA Region were identified and the Regional Strategic Plan for HWF Development in the SEA Region was developed based on the following ten strategic areas:

**Strategic Areas for Health Workforce Development for the South-East Asia Region**

1. Strengthening the collection, sharing, analysis and utilization of data at country and regional levels.
2. Policy development, regulation and legislations based on sound evidence.
3. Scale up health workforce production, with special emphasis on the public health workforce without compromising the quality of training.
4. Knowledge generation and management.
5. Capacity-building on HWF management.
(6) Regional partnership building.
(7) Quality assurance in training.
(8) Increasing investment on HWF.
(9) Improving the work environment for the health workforce.
(10) Development of a community-based HWF.

Day 3: Session XI: Workload Indicators of Staffing Need (WISN) techniques

**Learning objectives**

- Discuss the use of WISN techniques.
- Apply WISN technique in own context.

**Time**
1 hour 30 minutes

**Session overview**

(A) Lecture discussion.
(B) CD presentation.

**Materials**

- Hand-outs.
- CDs.
- Exercise.

Day 3: Session XII: Formulating the Strategic Plan

**Learning objectives**

By the end of the session, participants will be able to:

- Develop strategic planning framework for HWF.
- Develop action plan for the implementation of Strategic Plan.
**Time**

1 hour 30 minutes

**Session overview**

(A) Lecture discussion about the steps for formulating the Strategic Plan.

(B) Group work for the development of the action plan.

**Materials**

- Hand-outs.
- Exercise.

**Hand-out:**

**Formulating the Strategic Plan**

**5.1 Development of the HWF Strategic Framework**

Once the HWF strategic areas are identified, development of the HWF strategic framework follows. Based on the Regional Strategic Plan, the following strategic framework is given as an example. There are four strategic areas:

1. Scaling up of HWF production;
2. Capacity-building for HWF management;
3. Policy development, regulation and legislation based on sound evidence; and
4. Increased investment in HWF.

These strategic areas are actually priority HWF problems. These are segregated into strategic objectives and strategic activities to meet the objectives that form the Strategic Framework.

When developing the Strategic Framework it is important to decide what are the expected results and which area has the most impact to bring about those results in the most effective and efficient manner within the timeframe. Again, it depends on the country’s planning team to decide on strategic areas that are most crucial for strategic intervention.
Figure 3: Example for developing an HWF Strategic Framework based on the Regional Strategic Plan for HWF Development in the SEA Region.

5.2 Developing the HWF Strategic Plan and action plan for its implementation

The HWF strategy is an action plan to achieve objectives in the light of the current HWF situation and perspectives. After a comprehensive analysis of the internal and external environment, and after obtaining the big picture of the HWF situation and its problem, the strategies to reach the targeted results have to be crafted. The standard contents of an HWF strategic plan are as follows:

Contents of HWF Strategic Plan

(1) Foreword/preamble: It should be signed by the highest level of authority, as it carries considerable significance.

(2) Background and rationale: It will describe the needs for a strategic plan for HWF, what will be the outcome, and how this plan was developed. It should consist of the summary of HWF situational
analysis and HWF needs assessment by supply and demand forecasting results.

(3) **Goal:** it is a statement that describes in broad terms what the whole plan will achieve. It focuses on the important and big picture. The goal should encompass the important aspects of the policy, instead of describing it in detail.

“To exert a coordinated effort to assist Member countries in human resource development for health with a view to develop a health workforce which will be responsive to the health needs of the population.”

Depending on the HWF situation in countries and the priority problems identified, the goal can vary. The following is the goal of the Regional Strategic Plan for HWF development of the SEA Region:

(4) **Objectives:** The objectives focus on outcomes or outputs. The SMART principle is advocated when writing objectives. The term **SMART** stands for **Specific, Measurable, Achievable, Relevant and Time-bound**. Many consider objectives as intermediate goals.

Objectives for HWF training: To achieve the provision of one skilled birth attendant per village, in 235 townships (sub-districts) of the country by the year 2015.

Objective for HWF deployment: To ensure equitable distribution of two CBHWs per 1000 population in remote areas by the end of the biennium 2010-2011, for Ante Natal Care, routine immunization and primary health care.

(5) **Operational plan:** It outlines the institutional mechanism to ensure success. Although many tools are available to document the Strategic Plan, the Logical Framework Approach (LFA) is preferable as it is also currently used by WHO programmes to ensure results-based management.

(6) **Development of an action plan:** It is equally important for the planning team to develop an action plan, based on the Strategic Plan for the first one or two years. An action plan will enable the planning team to break-down the broad activities identified in the Strategic Plan to activities and sub-activities (if necessary, tasks and sub-tasks), while indicating the timelines to be initiated and completed, responsibilities for each activity and sub-activity, and the budget required for each activity. This will in turn enable the
team to monitor the progress of implementation of the HWF Strategic Plan.

(7) **Estimated budget:** Developing action plans for the first one or two years of operation will enable the planning team to arrive at a more realistic budget (see section on the development of an action plan). The activities to be implemented later need to be budgeted too in tandem with the country’s budgeting guidelines.

Inclusion of the estimated budget for strategic areas and related activities is crucial for resource mobilization. Components already funded by the national budget, WHO or other funding sources could be clearly mentioned in the Plan so that prospective developmental partners can review the HWF Strategic Plan and can support the funding gaps related to specific areas of work. This will finally lead to the whole HWF plan being funded by different partners.

(8) **Time-frame for action plan:** Usually, strategic plans range from five to ten years as HWF development usually takes five to seven years. The exact number of years need to be mentioned in the plan.

**Table 1: Sample of an operational action plan**

<table>
<thead>
<tr>
<th>No.</th>
<th>Objectives</th>
<th>Strategic Activities</th>
<th>Target/Indicator</th>
<th>Responsible person/depts</th>
<th>Time-frame</th>
<th>Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>S07</td>
<td>Increase AMW, MW and DMS training opportunities through scholarship programme.</td>
<td>No. of scholarships granted.</td>
<td>Dept. of Medical Sciences</td>
<td>March 2009 to June 2009</td>
<td>INR 8000 per month per head.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Strengthen capacity at the district MW training schools for AMW, MW and DMS training courses.</td>
<td>No. of faculty deployed. Curriculum developed for AMW.</td>
<td>DMS (Administration and Finance). DMS (Training)</td>
<td>February 2009 to July 2009 November 2008 to January 2009</td>
<td>INR 15 000 as salary per head per month.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Logistic support for AMW, MW and DMS training schools for the increased intake</td>
<td>No. of hostel beds, desks, chairs, messing facilities and amenities.</td>
<td>District MW Training School.</td>
<td></td>
<td>INR 50 000 per head per annum.</td>
</tr>
</tbody>
</table>

MW = midwives, DMS = Department of Medical Sciences, AMW = auxiliary midwife.
is important to gauge the time-frame as implementation can only begin after official approval from the authorities.

Strategic Objective 7 (SO7): To increase production and equitable deployment of auxiliary midwives in the high Maternal Mortality Rate townships.

Conclusion

In this section, a brief summary of what the HWF strategic plan will accomplish within the allotted time-frame. It also elaborates on how the plan will improve the HWF situation in the country.

5.3 Documenting the plan: The laborious planning process deserves its merit in the form of comprehensive documentation. The strategic plan needs to be documented, using an appropriate format.

Resource mobilization: Realistic budget estimation and resource mobilization are of prime importance in the implementation of HWF strategic planning. Doable priority action should first be carried out with existing facilities, available resources and personnel, incremental changes that will motivate donor and stakeholder participation should be implemented, and resource mobilization initiated. Some processes are ongoing and are already being funded by government or developmental partners. This needs to be mentioned so that the funding gap can be identified for further resource mobilization.

Approval: In some countries of the Region such plans are formally approved by the Cabinet of Ministers or by Parliament, which are their supreme law-making bodies. The commitment of high-level policy and decision-makers is critical for the successful development and implementation of an HWF Strategic Plan. While often such commitment works as a stimulus for initiation of the planning process, it needs to stay informed of the progress of the planning process.

Advocacy: Once finalized, it is highly recommended that the plan is advocated at all levels of government and nongovernment sectors, and among the myriad stakeholders who will be involved in implementing the different components of the plan.

General note: Drawing up the CSP for HWF is just the beginning of the long journey to implement the Plan. Many Plans are developed but not
approved nor implemented. Thus, it is important that right from the start, those in a position of authority feel committed to implement the Strategic Plan.

**Group Exercise: Strategic Planning for HRH**

**Objective:**

The objective of this exercise is to make the participants all techniques learnt during the course to prepare a Strategic Plan of Action for specific types of human resources in their countries for the next five to ten years.

ToR for preparation of Strategic Plan of Action:

1. **Problem analysis**
   - Densities for different HRH (ANM, Medical Officers and Specialists); how many more do you need?
   - Distribution: How will you improve services in rural areas?
   - Education: What measures would enhance the quantity and quality of medical education?
   - Financial ceiling: How much more financial resources are required?

2. **Strategic planning**
   - Suggest measures for each of the above.
   - Timetable to achieve the targets.
   - Assumptions and risks involved.

**Day 4 : Session XIII: Developing the monitoring and evaluation plan**

**Learning objectives**

At the end of the session, participants will be able to:

(A) Develop monitoring and evaluation mechanism

(B) Develop indicators related to monitoring and evaluation.

**Time**

1 hour 30 minutes
Session overview

(A) Lecture discussion on monitoring and evaluation
(B) Group exercise for the development of indicators
(C) Monitoring mechanisms.

Materials

Hand-outs.

Hand-out:

Developing the monitoring and evaluation plan

- During the planning stage there is no certainty about activities that will or will not work and about what might be needed in the future. Strategic planning by nature is iterative and has to be reviewed and revised while implementing the plan. The monitoring and evaluation processes, baseline indicators and targets need to be in place from the beginning to measure success/failure or degrees of success/failure.

- Monitoring process: The monitoring team can include a third party from an external monitoring team or an internal monitoring team, and consists of stakeholder representatives, professional organizations and client representatives.

- The frequency of monitoring can either be quarterly, annual or biannual and it should be strategically efficient and cost-effective.

- The cost incurred on monitoring and evaluation has also to be calculated and set aside in the beginning in the Plan.

- The tools for monitoring and evaluation need to be developed according to the indicators and targets stipulated in the Plan. Quantitative and qualitative assessments of the programme need to be conducted in some areas.

- Formative assessment measures the outcome and provides feedback to improve the process. This type of assessment adds value to the programme as it ensures relevance during its implementation period.
- **Summative assessment** is conducted at the end of the project or the phase; it decides whether the overall objectives have been achieved or not.

- The **annual Strategic Plan review** is usually conducted for a long-term programme. It is best to conduct annual review and give feedback on its findings in order to improve the programme. The report of the review has to be well documented and presented to high-level authorities so that recommendations and feedback could be noted and action ensured. The efforts made by the HWF country team have to be officially acknowledged at this point of time to motivate further commitment.

- **Evaluation**: This is a process by which the team conducts an assessment at the end of the programme to determine the level of achievement of the programme’s objectives.

- **Evaluation team**: Usually the final evaluation team consists of internal and external participants. The terms of reference of the team are well defined. During the planning stage it is important to define the means by which the rate of implementation of the HWF plan will be measured. Output indicators, targets and the process of evaluation will need to be established and documented.

- **Feedback and course correction**: The monitoring and evaluation process is completed by providing feedback on the findings to the implementers so that the process could be redirected and course correction made for better results. The feedback should be provided through targeted surveys and course correction made. This step will help in aligning HWF development with the country health needs.

**Monitoring and evaluation**

**Group exercise**

**What is monitoring?**

Monitoring is a systematic and continuous assessment of the progress of an activity over time. Monitoring can be done through the process of collecting, coordinating, processing, measuring and communicating information to assist the management in decision-making.
Monitoring encompasses follow-up of “Inputs” (vaccines, funds, personnel, etc.), the “Process” (activities/tasks being done according to accepted norms and standards), “Outputs” (products meet specifications, services are delivered as planned, training results in new skills, etc.) and finally the Outcome (the short-term effect of the programme or campaign).

Monitoring ensures that:

- Work progresses according to schedule;
- Standards such as storage and administration of vaccines are maintained;
- Resources are used rationally and as planned;
- The required information is available and used, etc.;
- Problems are detected during the implementation period so as to undertake corrective measures; and
- Plans are verified to ascertain that they are being implemented in the way and manner planned.

Tools for monitoring

These are:

- Health Management Information System and periodical reports.
- Supervision reports.
- Programme progress reports.
- Project plan of action.

What is evaluation?

Evaluation is the systematic assessment of actions in order to improve planning or implementation of current and future activities. Evaluation includes areas of context, input, process and impact to assess whether the set objectives have been achieved. It can be internal, that is carried out by the implementers, or external.
Why evaluation?

The essence of evaluation is to determine programme performance, effectiveness and efficiency. In other words, an evaluation can be carried out to:

- Decide whether an activity was worth doing.
- Determine whether the objectives set were achieved.
- Determine (formative evaluation) whether activities should be continued or not.
- Determine whether the project should be extended elsewhere, etc.

What can programme evaluation do?

- Increase programme knowledge.
- Direct programme improvement.
- Maximize resources.
- Provide accountability.

Framework for programme evaluation

WHO had provided a framework for evaluating programmes in 1981. The steps are as follows:

Step 1: Engage stakeholders.
Step 2: Describe the programme.
Step 3: Focus the evaluation design.
Step 4: Gather credible evidence.
Step 5: Justify conclusions.
Step 6: Ensure use and share lessons learned.

Types of evaluation

Formative evaluation: An initial or mid-term evaluation which helps in changing the programme midway.

Summative evaluation: To determine effectiveness over a period of time.
Components of the programme to be evaluated

**Relevance:** Is the programme really needed and is it targeting the individuals in need, referred to as “relevance evaluation” or “need assessment”?

**Progress:** To determine if the implementation matches the plan, to recognize the achievements and shortcomings referred to as “Implementation Evaluation”.

**Process:** To identify the strengths and weaknesses and to help understand the operationalization of the programme.

**Effectiveness:** To identify if the results meet the predetermined objectives, examine the relationship between programme activities and the observed consequences.

**Efficiency:** Analyze the results in terms of resources put in to maintain the programme, i.e. “the input-output analysis”.

**Impact:** To study the long-term effects of the programme and the overall effect on the health status of the community.

**Tools for evaluation**

- Records from governmental/nongovernmental sources.
- Case studies.
- Qualitative studies.
- Sample surveys, cross-sectional studies.
- Cohort studies.
- Panel studies.
- Controlled experiments and intervention studies.

**Activity 1**

Chalk out an evaluation plan for undertaking an evaluation of the AIDS Control Programme in the state of Delhi. Enumerate the following while designing the evaluation service:

- Rationale.
- Provide a detailed overview of the number and type of service centres to be selected.
- The methodology including the study design.
• Indicators to be used to carry out the evaluation process.

**Activity 2**

Enumerate the steps to carry out a formative (concurrent) evaluation of the National Leprosy Eradication Programme utilizing the different indicators mentioned under the Simplified Information System.

**Activity 3**

Design a protocol under the following headings to conduct a mid-term evaluation of ASHA workers and Janani Suraksha Yojna (JSY) in your field area using the performance evaluation indicators.

- Rationale.
- Introduction.
- Aims and objectives.
- Literature review.
- Material and methods.
- Timeline.
- Budget.

**Activity 4**

Describe the monitoring system under the National Rural Health Mission of your district health organisation and identify those different approaches that are being followed. List strengths and weaknesses of the monitoring system described above.

**Activity 5**

Prepare a plan for preparing quality monitoring indicators for the National AIDS Control Programme. Why are they more difficult to implement than usual quantity monitoring?

**Activity 6**

As a Chief Medical Officer/District Health Officer you should develop appropriate quantitative and qualitative indicators for monitoring and evaluation
and to measure the level of progress of health programmes and projects in terms of outputs and outcomes.

Case Study 1: The importance of monitoring where projects are non-performing

Burahanpur district of Orissa, India, elected for a special project, was not performing well. The district health officer monitored the performance of various programmes by comparing actual services provided with the targets set. For instance, the number of immunizations given in a month and year to date was compared with the targets set for the same. Whenever a significant shortfall was noticed warnings were issued to staff. But the target achievement of the district on almost all programmes was just about average. In a meeting held to discuss the performance, it was discovered that the workers had no idea about the needs of households – they did not know in which households there were children and mothers who were targeted recipients of the services. As a first step, therefore, it was decided to complete the household registers to get information on people needing services and also ascertain the current coverage level of different services. Once coverage information from household registers was analysed and deficient areas identified, the focus of monitoring was shifted from the number of people served, such as the number of children immunized, number of mothers receiving TT, number of deliveries attended by trained staff and so on to the coverage of desired beneficiaries or meeting needs of the households where potential beneficiaries existed. Thus a system for closer monitoring consisting of analysing performance levels against the needs, identifying reasons for poor performance and taking corrective actions helped improve performance considerably.

Case Study 2: Evaluation of the immunization programme

In evaluation of an immunization programme in Begumganj district in Madhya Pradesh, it was found that while 30 to 40% of children below one year were receiving one of the six vaccinations (DPT, polio, BCG, measles), only about 10% children had received full scheduled doses of vaccination. As it is important to immunize a child fully, a strategy was developed to improve follow-up. Immunization cards were given to mothers so that it became easy to identify which immunizations were missing. Field workers were trained to followup and motivate parents of children who had not received immunization to come to the clinic. Once a month, camps were held to immunize children who had defaulted on the immunization schedule. This led to considerable increase in
coverage as well as nearly 50% of the children were fully immunized at the end of the year.

**Case Study 3: Evaluation of school meals programme**

The following are details of an evaluation of a school meals programme:

- The objective of the programme was to improve child nutrition.
- The teachers were keen to ensure that no children in the programme had a haemoglobin count of less than 10.
- The programme was under operation for one year.
- Before the programme was launched, the children were examined by a group of 10 final-year students of the medical college. They found that 65 per cent of the children had a haemoglobin count of between 8-9 gms, 9% to 15% per cent had 10 gms and above; and 20% had less than 8 gm, while 30% had partial deafness, and 40% had defective vision.
- The formula of the meal suggested by the Central Nutrition Laboratory did not take into account locally available cheaper ingredients.
- Headmasters considered it good that their students were getting some extra food but felt that it was an additional burden on the teachers for which they should be compensated with an allowance.
- The teachers, by and large, had an impression that these students could concentrate better in the afternoon classes where their participation would be to a greater degree. But they could not provide any statistical data.
- The unemployed youth in the villages felt that they could have been involved.

The second survey by the medical college students showed that there was significant increase in the haemoglobin level of the students who were fed the school meals. The increase was noticeable in 33 per cent of students among the “less than 8 gms” Haemoglobin group, 22 per cent in “8 to 9.9 gms” Haemoglobin group and 15% in the “10 gms and above” Haemoglobin group.

- The rates of morbidity from infectious diseases and of child mortality remained unchanged.
Discussions points

(1) Write your major conclusion drawn from the above findings.
(2) Design an evaluation study for such a scheme.

Day 4: Session XIV: Logical Framework Approach

The Logical Framework Approach (LFA) was developed originally in 1969. It was intended to serve as a project planning tool for the US Agency for International Development (USAID). It has since been widely adopted and adapted by the international donor community and is used for project designing and planning. Since 1998, WHO has undertaken strategic reforms aimed at improving accountability and transparency and has adapted LFA for “results-based programme management in the Organization”.

The LFA is an objective-oriented approach that enables the planning team to document the key elements of a plan in a matrix showing the linkages very clearly while providing an opportunity to outline the broad activities and outputs under each specific objective in a logical sequence. Furthermore, this template will enable the planning team to integrate the monitoring and evaluation plan for its implementation into the same framework by identifying the verifiable indicators and means of verification. Further, it will enable the team to explicitly state the assumptions made and preconditions stated during the situational analysis.

The LFA is organized in a project matrix, but before the project matrix can be completed all project elements and indicators have to be defined. The following points need to be considered first:

- Identification of problem area: What are the problem areas?
- Participation analysis: Who are the key stakeholders involved, external, internal, clients, primary, secondary stakeholders; mapping the relationship between different stakeholders.
- Problem analysis: Can use the problem tree to identify the core problem; create the foundation for the objective tree.
- Object tree analysis: A visual way of identifying what actions are needed to tackle the causes of the problems. Develop SMART objectives.
- Intervention analysis: Based on the objectives, interventions can be identified. Analysis of interventions in terms of financial
resources, Human Resources, institutional capacity and resistance from stakeholders. Finally, agree on the strategy.

- Programme matrix.
- Assumptions: Preconditions need to be assessed one by one by asking questions: Is the assumption important to the project? Will the assumption be fulfilled? If not, it has to be deleted.
- Indicators: It is the qualitative or quantitative evidence that is used to assess progress towards the objective. It provides the basis for monitoring and evaluating outcomes. An objective may have more than one indicator.

<table>
<thead>
<tr>
<th>No.</th>
<th>Project elements (narrative summary)</th>
<th>Objectively verifiable indicators (OVI)</th>
<th>Means of verification (MOV)</th>
<th>Assumptions/Risks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Development objectives</td>
<td>Measurable indicators that are used to indicate whether the development objectives will be reached.</td>
<td>Ways of verification.</td>
<td>Conditions, events, decisions that are outside the control of the project but are necessary for reaching the development objectives.</td>
</tr>
<tr>
<td></td>
<td>Immediate objectives</td>
<td>Measurable indicators that are used to indicate whether the immediate objectives have been or will be reached.</td>
<td></td>
<td>Conditions, events, decisions that are outside the control of the project but are necessary for reaching the immediate objectives.</td>
</tr>
<tr>
<td></td>
<td>Outputs</td>
<td>Output indicators</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Activities</td>
<td>Input indicators</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Strengths of LFA

- Problem and objective-oriented approach, consistency in programme, project and planning.
-Highlights linkages between project elements, external factors and stakeholders.
- Provides basis for systematic monitoring and evaluation.
- Allows participatory analysis (groups participating in the project).

Limitations

Time-consuming and tedious.

Rigid and not always best when there are frequent changes.

Exclusively objective-based: Can lead to strong focus on results rather than on process and sustainability.

Day 4

Time

3 hours

Session XV and XVI: Group work for the development of Action Plan

Day 5: Session XVII AND XVIII: Presentation on Action Plan by the participants
Day 5: Session XIX: Brainstorming for the way forward

Post test

Session objectives

This session will enable you to:

help evaluate the effectiveness of the training after the training has been completed.

Time

30 minutes

Session overview

(A) Post-test questionnaire (15 minutes).
(B) Feedback (15 minutes).

Materials

Post-test questionnaire
Test Scoring Chart (Poster 1).
Marker pens/ Coloured tapes (two colours).

A. Post-test questionnaire (15 minutes)

(1) Distribute the post-test questionnaire to all participants. Tell participants that they have 15 minutes to fill in the answers.
(2) Collect the filled-in hand-outs at the end of the stipulated 15 minutes.
(3) Assign one of facilitators with the task of correcting the filled-in tests and calculating the percentage of correct answers to each question.
(4) Plot (with coloured tape or marker pens) the percentage of correct answers to each question on the Scoring Chart (Poster 1), below the pre-test results for each question.
(5) Display the Test Scoring Chart in the classroom. This will inform participants about their scores before and after the training. Discuss results from the pre- and post-tests.

(6) Discuss each question and tell participants the correct answers.

**Session XX: Valedictory**

A Valedictory session must be held to formally conclude proceedings. It usually deals with a concluding or valedictory speech by the Chief Guest or a dignitary, and the distribution of awards/certificates as may be the case. It is usually a brief or hour-long session that concludes with a vote of thanks being placed on record.

**Time**

One hour

**Elements of a valedictory session:**

- Welcome of Chief Guest.
- Outlining briefly the highlights of the course.
- Presentation of an action plan for the future.
- Feedback and suggestions.
- Distribution of certificates.
- Concluding address by the Chief Guest
- Vote of thanks
The health workforce (HWF) is primarily engaged in providing health care to the community and is the most important asset of health systems. Health systems can be strengthened only through effective HWF planning, development and management. The HWF plays a pivotal role in achieving positive health outcomes.

WHO has developed Regional Guidelines for the Development of the Health Workforce Strategic Plan in countries of the South-East Asia Region. There is a need to hold a series of trainings for planners and policy-makers to make them efficient at using these guidelines. For this, a pool of master trainers (facilitators) are needed who can deliver such training in a uniform manner.

This training module on development of the health workforce strategic plans has been prepared to help the master trainers (facilitators) organize such types of training in their respective countries.