

# Module 15

## Exercises

## Introduction

This module proposes exercises intended to encourage the reader to deepen her/his understanding of the issues covered by the manual. Ideally, after studying each thematic module, the reader should complete the related exercise(s). This work can be done individually, or in a small group if fellow students are available. Triangulating by e-mail with colleagues interested in the study of the same issues may greatly help sharpening the analysis, and make the effort demanded by each exercise more enjoyable.

The exercises presented in this module try to capture the variety of issues and approaches that analysing a disrupted health sector entails. Most exercises are based on original materials produced in actual health sectors in crisis. A mix of quantitative and qualitative approaches is used throughout the module, to reflect the work that an analyst needs to realize to reach an adequate understanding of the health systems under study. Some exercises aim at familiarizing the reader with analytical tools presented in the manual, and at extracting valuable meaning from them.

The user of this manual should not be scared by the complexity of some of these exercises. We recognize that they are challenging. This is due to the complexity of the situations that must be studied. In many cases, simplifying the exercises would betray the issues they are supposed to simulate. The difficulty of the exercises roughly increases as the reader proceeds through the module.

Each exercise is followed by its feedback, which offers what the authors of this manual consider as satisfactory answers. Given the nature of the issues covered by the exercises, a measure of subjectivity colours these answers, which are not always exclusive. We have suggested documents that will clarify the discussed problems, and support the proposed answers. The user of the manual may conceive other valid answers to the questions posed by the exercises.

The reader willing to discuss further the issues raised by the exercises may contact the authors of the manual directly, writing to:

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*Note:* for some terms used in the exercises, the reader should refer to the *Glossary* included in *Module 14*.

**A taste of the issues studied in the manual****Exercise 1**

These multiple-choice questions are presented here as a small sample of the issues that are discussed in detail in the manual. The reader may go through the questions to broadly assess her/his familiarity with this study field. Additionally, in the feedback to this exercise the reader is given pointers to relevant sections of the manual, in order to study aspects touched by the questions. A thorough reading of *Module 1* will help the prospective reader understand the architecture of the manual, and plan her/his study path across the modules.

For each question, choose the best single answer, by circling the corresponding letter (A, B, C, D or E).

1. Examine the following sentence: “*The objective of improving the access of refugees to primary health care will be achieved through increased funding of NGO outreach activities*”. Does this sentence refer to an example of:
  - A. An official policy
  - B. A contingency plan
  - C. A strategy
  - D. A benchmark
  - E. A project
2. All the features below, except one, are common to current complex emergencies. Identify which one is NOT A COMMON characteristic:
  - A. Increased mortality
  - B. High levels of violence against civilians
  - C. High food insecurity
  - D. High number of battle-deaths
  - E. Large population displacement
3. Which one of the following desirable characteristics of health information is THE LEAST IMPORTANT in a crisis context?
  - A. Precision
  - B. Timeliness
  - C. Accuracy/validity
  - D. Cost
  - E. Relevance
4. In a country affected by a protracted crisis, which, among the following, is not an appropriate information source?
  - A. Household surveys, like the *Demographic and Health Survey*, or the *Multiple Indicators Cluster Survey*
  - B. Surveillance systems
  - C. Academic journals
  - D. Civil registration systems
5. Consider the following (true) sentence:

“*The Angolan hospital network is oversized and concentrated in large towns. It absorbs a large proportion of available resources.*” Given such a picture, which one of the remarks listed below is CORRECT?

  - A. The Angolan hospital network suffers from a severe resource shortage.
  - B. Existing hospitals should be rehabilitated and fitted with state-of-the-art equipment.

**Exercise 1**

- C. The Angolan health sector suffers from a severe allocative inefficiency.  
D. Large hospitals are necessarily the main providers of health care in urban settings.
6. Decide which of the following sentences is TRUE.  
During a protracted conflict:
- A. The health workforce tends to contract, due to violence, disease, famine and outward migration.  
B. The proportion of internal health expenditure absorbed by salaries tends to increase.  
C. There is a large influx of health workers from the diaspora.  
D. Staffing patterns at PHC level tend to improve.
7. The relationships between protracted conflict and HIV transmission has been studied in several countries. Available evidence suggests that:
- A. Protracted conflict consistently accelerates HIV transmission.  
B. HIV transmission is faster within the poorest population groups.  
C. In most protracted conflicts HIV prevalence is lower than expected.  
D. In most protracted conflicts HIV prevalence is higher than expected.
8. In the 1990s, the levels of health expenditure per capita per year of Afghanistan, the Democratic Republic of the Congo, Somalia and Southern Sudan were surprisingly similar. They fell within one of the following ranges:
- A. Below 10 US\$ per capita per year  
B. 10–20 US\$  
C. 21–30 US\$  
D. 31–40 US\$  
E. Above 40 US\$
9. Drugs donations are commonplace in crisis contexts. Which one of the following statements holds TRUE in most disrupted health sectors?
- A. Drugs donations are a vital component of an emergency response, and should be encouraged.  
B. Without adequate controls, the negative effects of drugs donations are likely to offset their benefits.  
C. No major effort should be devoted to regulate drugs donations, because their weight is usually marginal.  
D. Recent research has highlighted the positive effects of drugs donations on healthcare provision in crisis-affected health sectors. Thus, international agencies are actively trying to promote them.
10. Which one of the following statements is TRUE?  
In a complex emergency in a low-income country,
- A. user fees do not have a negative impact on equity.  
B. the coverage of health insurance is limited.  
C. private health spending represents an insignificant proportion of total spending.  
D. government spending is redirected to capital expenditure.

## Exercise 1

11. Which one of the following sentences is TRUE?
- Under-five mortality is an indicator.
  - Under-five mortality rate is an indicator.
  - Under-five mortality is lower than infant mortality.
  - The emergency threshold for under-five mortality is 1 death per 10,000 per day.
12. Consider the following summary definitions of a small/basic health centre. Which one would you choose as clear-cut criterion to classify as such a health facility in a poor, distressed health sector?
- A health facility staffed by one community health worker and a traditional birth attendant, supplied by a ration kit of essential medicines.
  - A health facility staffed by one medical doctor, four nurses, two midwives and one lab technician, offering basic emergency care, inpatient care for acute medical conditions, and mother and child health care.
  - A health facility staffed by one medical assistant, one or two nurses and one midwife, offering outpatient curative and mother and child health care (including immunizations).
  - A health facility of 100–150 square metres of covered surface, with a few beds, continuous electricity supply and running water.
13. Many countries at the end of a protracted period of turmoil decide to move towards decentralization. Which one of the following statements is TRUE?
- There is a wealth of evidence showing the benefits of decentralization in health sectors in transition.
  - A decentralized state administration, by taking decision-making closer to the service delivery point, will improve the efficiency and the effectiveness of healthcare provision.
  - After many years of international experimentation, the technical elements of decentralization are well understood. Health sectors emerging from crisis will benefit from adopting them straightforwardly.
  - Despite official endorsement, decentralization has not progressed as expected in most health sectors recovering from conflict.
14. Examine the following table on the aid given to countries in post-conflict.

| Country              | Population (million) | GDP per capita per year (current US\$) | Aid per capita per year (current US\$) | Aid as % GDP |
|----------------------|----------------------|--|--|--------------|
| Bosnia & Herzegovina | 3.7                  | 987                                    | 247                                    | 25%          |
| Cambodia             | 11.4                 | 269                                    | 30                                     | 11%          |
| Timor-Leste          | 0.8                  | 341                                    | 209                                    | 61%          |
| Mozambique           | 15.8                 | 166                                    | 67                                     | 40%          |
| Nicaragua            | 4.2                  | 425                                    | 147                                    | 35%          |
| Rwanda               | 7.5                  | 226                                    | 59                                     | 26%          |
| West Bank & Gaza     | 2.5                  | 1,433                                  | 213                                    | 15%          |

Note: Annual average for first five years following the conflict.

Adapted from Rohland K, Cliffe S (2002). *The East Timor reconstruction program: successes, problems and tradeoffs*. Washington, DC, The World Bank (CPR Working Papers. No. 2).

- Exercise 1** One of the following remarks is WRONG: find it.
- A. Aid allocations to countries take into due account the size of the population of the country in transition.
  - B. The differences in aid per capita do not seem to be related to the intensity of need for reconstruction.
  - C. The strategic interests of donors are an important determinant of the volume of aid.
  - D. Crises geographically close to donor countries are likely to receive more aid than distant ones.

## Exercise 1 Feedback

### Feedback to Exercise 1

*Question 1. C.* A strategy is about HOW, or the course of action for achieving the set objectives. In this case, the expansion of NGO outreach activities is the option chosen for an increased access of refugees to PHC.

*Question 2. D.* After the end of the Cold War, the vast majority of complex emergencies have been characterized by violence against civilians; rare are the examples of fighting between armies or armed groups. All the other features are constantly found in protracted complex emergencies. See *Module 4*.

*Question 3. A.* In a crisis, information should help the managers to make the best decision in the given context. The exact quantification of indicators is not so essential as the other attributes of information listed in the question: *timeliness* is important, mainly in an acute crisis; *accuracy* is key to choosing the best option and reducing errors; *cost* (including the opportunity cost) is critical in a context of increased needs and limited resources; and *relevance* is key to focus the efforts in data collection and analysis on the pieces of information that are the most important for the priority needs to be addressed. Note that some people use *precision* and *accuracy* as synonymous words, but their meaning is different in a critical if subtle way. See *Module 2*.

**Exercise 1  
Feedback**

*Question 4. D.* In countries in crisis, and in most low-income countries, civil registration systems are non-existent or they have very limited coverage. All the other options listed in the question, including journals, can be better sources, although all require a careful scrutiny of the provided information. See *Module 2*.

*Question 5. C.* The fact that urban hospitals absorb a large share of resources implies that only limited funds are available for the other categories of facilities that offer health care to different groups of the population, for example in rural areas. This sort of distortion is called *allocative inefficiency*: the whole population receives smaller benefits in this case than if available resources had been distributed in a different, more efficient way. See *Module 7*.

*Question 6. B.* Because of the overall paralysis of the health systems and insecurity, most recurrent expenditures are not incurred (e.g. outreach activities, maintenance of infrastructure and equipment, referral, etc.). Also, financial squeezes tend to disproportionately affect other expenses. As a result, the proportion of salaries tends to increase. Health workers are often targeted by violence, but the impact on the size of the whole workforce is not significant in most cases. Losses are often offset by accelerated training. A large influx of diaspora health professionals during the crisis and/or in the post-conflict transition has never been reported. Staffing patterns tend to worsen, with most qualified PHC staff moving to secure areas or abroad. See *Module 10*.

*Question 7. C.* Some recent studies have show that HIV prevalence in countries affected by crisis is much lower than expected. Different explanations can be put forward: some population groups may become segregated and isolated, with limited mobility and accessibility; widespread killings and forced displacement may diminish the incidence of infections; there is little evidence that large-scale sexual violence has resulted in a change in the prevalence of HIV in the population as a whole. See *Annex 4*.

*Question 8. A.* For a discussion of health expenditure levels and their implication on healthcare delivery, see *Module 6*.

*Question 9. B.* Negative effects include: medicines which are not included in the national formulary, medicines expired or close to expiration, medicines with instructions in a foreign language, etc. Large donations of medicines require time and effort for selecting those that are useful. The cost of disposing of those that are useless or harmful may be high. See *Module 11*.

*Question 10. B.* Health insurance requires that individuals/households pre-pay a premium that goes into a collective pool from which health services are paid. In a crisis, the proportion of the population that can pay a regular premium is limited and consists mainly of civil servants or employees of the formal sector. See *Module 6*.

*Question 11. B.*

*Question 12. C.* Establishing operational criteria for classifying health facilities is important not only for analytical purposes, but also to guide allocative decisions. See *Module 9* and *Exercise 9* in this module.

*Question 13. D.* Decentralization requires the transfer of authority, competence and resources to local level and, therefore, needs careful preparation. What often happens in countries emerging from a crisis is that authority is transferred to the periphery, without adequate support to improve competence in management and administration and without sufficient resources. See *Module 8*.

*Question 14. A.* As donors tend to apportion aid to countries, small-population recipients benefit disproportionately. Countries with large populations may receive big allocations that, once expressed in per capita terms, look much less impressive.

## Exercise 2 Choosing indicators to monitor the recovery of the Somali health sector

You belong to a team that has formulated a 5-year programme aimed at supporting the transition from war to peace of the Somali health sector. The programme has been discussed with many stakeholders, having so far received positive feedback. As a final step in the formulation process, your team must select a set of relevant indicators, which will help participants in monitoring progress over the life of the programme.

The chosen indicators must be:

- Relevant to the Somali context and to the interventions proposed by the recovery programme
- Collectable in the given conditions
- Sensitive to change within the programme time span
- Systemic in nature, in order to help studying the evolution of the whole health sector.

To carry out the exercise, you will have to use the document *Somalia Health Transition Strategy 2006*, which is a condensed version of a real-life programme proposal, formulated in 2006 in the context of the Somalia Post-Conflict Needs Assessment. *You must read this short report before starting the exercise.*

*Background reading* that may help you in choosing the most appropriate indicators is: Bodart C, Shresta L (2000). Identifying information needs and indicators. Chapter 4 in: Lippeveld T, Sauerborn R, Bodart C, eds. *Design and implementation of health information systems*. Geneva, WHO.

### **1st part of the exercise**

To discuss the choice of indicators with partners, a round table has been convened. Most important stakeholders have attended it, showing the utmost interest. Participants have put forward a variety of suggestions. *You have to consider each suggestion, and decide whether to follow the received advice, or conversely to explain why you don't.* The main suggestions are the following:

- a. *As impact is the crucial aspect of any programme to be measured, health status indicators like infant and maternal mortality should take precedence over everything else.*

Agree

Disagree

*Explain why:*

- b. *In order to clearly relate interventions to outputs, the programme should choose definite targets and pursue them over its life. The Millennium Development Goals (MDGs) are the most useful targets in this sense, and should guide the implementation of the programme.* **Exercise 2**

Agree

Disagree

Explain why:

- c. *As in such a fluid context we expect significant systemic changes over the programme's life, monitoring trends is more instructive than considering single-point figures.*

Agree

Disagree

Explain why:

- d. *Given its status of global priority, HIV/AIDS should be given adequate prominence.*

Agree

Disagree

Explain why:

- Exercise 2** e. *In light of the unreliability of population data and the lack of data collected through random-sampling surveys, coverage figures should be avoided. Absolute output figures should be preferred instead.*

Agree

Disagree

Explain why:

- f. *Beyond national and/or regional aggregate figures, attention must be paid to differences in service uptake across regions. Monitoring internal disparities will become increasingly important as security improves and health services are taken to areas previously deprived of them, or as other areas become inaccessible.*

Agree

Disagree

Explain why:

- g. *The list of indicators chosen to monitor the transition programme must be short. Three to five well-chosen indicators are sufficient to achieve this goal.*

Agree

Disagree

Explain why:

**2nd part of Exercise 2****Exercise 2**

You have to choose monitoring indicators for one (or more, if you wish) of the following key areas:

- Financing
- Infrastructures and equipment
- Human resources
- Pharmaceuticals
- Health service delivery and management systems.

You will have to be very selective, choosing maximally three indicators for each area. You are encouraged to comment the indicators you have chosen, clarifying for each of them:

- why you recommend its selection,
- the way and the source(s) from which it will have to be collected,
- the frequency of collection, and
- (if any) the caveats to be kept in mind in interpreting it.

**1st part of the exercise****Feedback  
Exercise 2**

- a. **Disagree.** Retrospective indicators of health status are not very sensitive to changes induced by a system's strengthening programme. In any case, they should not be used for direct comparisons, or causal attribution. Maternal mortality ratios are particularly inappropriate. To study this issue further, see World Health Organization and UNICEF (1997).
- b. **Disagree.** The 5-year programme under study is largely about investing in systems, which only in the very long run will affect the MDGs. Within five years, no major changes due to the programme in MDG-related indicators should be expected, and in any case disentangling programme effects from other ones will be impossible. No meaningful monitoring of the programme's success is possible using the MDGs, as suggested. Also, to express progress when ignoring the baseline, as is the case in Somalia, is clearly meaningless.
- c. **Agree.** Precisely because most baselines are unknown, single-point figures are not helpful to monitor an investment programme. But trends may show whether the programme is heading in the right direction, and prompt corrective measures if needed.
- d. **Disagree.** Due to the huge amount of money poured in by Global Health Initiatives, HIV/AIDS received disproportionate attention. As NGOs and UN agencies raise large portions of their funding from these sources, they are keen to keep HIV/AIDS as prominent as possible. The same can be said for the polio eradication campaign. See Capobianco and Naidu (2008), who found that almost half of the external support given to the health sector in 2006 went to these

## Feedback Exercise 2

“priorities”. Of course, neither are true priorities on epidemiological grounds. HIV prevalence in Somalia is unknown, but considered low.

- e. **Agree.** After completing the formulation of this transition programme, political arguments about population data have continued. A serious demographer studied the issue (Jarabi, 2007) and proposed sensible figures, but they were rejected by zonal health authorities. Thus, reliance on absolute figures for monitoring purposes seems reasonable until population data become available and are accepted by the concerned administrations. *See Grappling with population data in Module 4.*
- f. **Agree.** The existence on huge variations across zones and regions and over time has been pointed out by involved actors. Given worsening security conditions, interventions have to be directed where it is possible. In practice, it means to privilege Somaliland, regardless of its desirability in respect of health needs.

*Note:* The word “zones” is used to refer to Somaliland, Puntland and the Centre-South. “Regions” refer to clusters of districts, usually with a few hundred thousand population, or less. This is an arbitrary convention, but important in light of existing political sensitivities.

- g. **Don’t agree.** A comprehensive, complex programme, aiming at strengthening the whole health sector, cannot be adequately monitored with only a few indicators. A parsimonious mix of indicators must cover most aspects – inputs, process and outputs – in key areas like financing, infrastructure, human resources, medicines and service delivery. In total, 12–15 well-chosen indicators may be sufficient to properly monitor the transition programme.

### 2nd part of the exercise

The following table presents indicators to be considered, with remarks and excerpts from the original transition programme report. As the programme evolves, its monitoring will become more structured and sophisticated. The chosen indicators will have to be refined, and new indicators may have to be added.

| Area            | Indicator   | Remarks/excerpts from the original report (in italics)   |
|-----------------|---|--|
| Financing       | Total health spending, by public/private sources, level of care and zone/region, followed over time | <i>Health spending is likely to increase slowly during the first two years, even in the presence of conspicuous donor funding, because of the existing absorptive and implementation constraints. A fully-fledged recovery package, to be launched towards the end of the transition period, is likely to demand a total resource envelope near to or above US\$ 15 per capita. The health information management system has to improve remarkably to generate such information.</i> |
|                 | Proportion of donor funding provided un-earmarked, over time  | <i>The quality of the available funding matters as much as its quantity. As funding of this kind is now negligible, progress in this area would suggest increasing donor confidence.</i>   |
|                 | Proportion of donor funding allocated to general health services, over time                         | Key aspect in light of the dominance of vertical programmes identified by Capobianco and Naidu (2008).   |
| Infrastructures | Total investment, by level, zone/region and ownership   | <i>To study health facilities, the existing information must be strengthened and expanded. The ratios of health facilities to served population will have to wait for better census data (before they can be used for monitoring and planning purposes).</i>   |
|                 | Number of functioning health facilities, by level, zone/region and ownership, over time             | In order to choose clear-cut operational criteria for classifying health facilities, see <i>Exercise 9</i> .   |

Feedback  
Exercise 2

| Area            | Indicator   | Remarks/excerpts from the original report (in italics)  |
|-----------------|---|---|
| Human resources | Composition of the workforce, by category and gender, over time   | <i>Recognized categories should decrease in number and become standard. The proportion of health workers belonging to non-standard ones should progressively decrease. The number of cadres whose skills are now scarce should start to increase.</i>   |
|                 | Resources allocated to training activities  | <i>An increase from the present low levels would suggest that financing bodies recognize the centrality of this area for health sector recovery.</i>  |
|                 | Training throughput   | Indicator of training efficiency.   |
|                 | Deployment, staffing patterns and workloads, over time  | <i>The direction these indicators take during the 5-year programme will provide clues about personnel management practices and the incentives at play.</i>  |
| Pharmaceuticals | Average prices paid by different procurement arrangements, for a basket of selected drugs                                 | Critical to identify better performers and attain sector-wide savings.  |
|                 | Availability of tracer essential medicines at the service delivery point  | <i>Putting in place the basic elements of a purchasing and supply system is comparatively easy. Regulating the pharmaceutical area, and ensuring rational prescription, as well as patient compliance, are far more challenging goals, particularly in the commoditized Somali context.</i>   |
|                 | Wastage along the supply chain  |   |
|                 | Patterns of prescription  |   |
| Health service  | Service outputs: outpatient contacts, immunizations, attended deliveries, inpatient bed-days, by public/private providers | <i>Service consumption is expected to expand slowly, as resource levels increase, funding becomes more predictable, supply is strengthened, and security improves. During the first two years of the programme, service growth will be caused mainly by increased consumption at the already-existing delivery points. Later, once new facilities open, existing ones are revamped, and additional services are added, service growth would come from new areas and communities. Whatever is the baseline eventually established and the target chosen, an annual growth of 5% of services volumes in the first two years and of about 10% afterwards would suggest very good progress.</i> |
|                 | Differences in service uptake across zones and regions  | <i>Monitoring internal imbalances will become increasingly important as security improves and health services are taken to areas previously deprived of them.</i>   |

## References

- Capobianco E, Naidu V (2008). *A review of health sector aid financing to Somalia (2000–2006)*. Washington, DC, The World Bank (WB Working Paper No. 142).
- Jarabi BO (2007). *Review of various population estimates for Somaliland, Puntland and South-Central Somalia*. Report of the independent consultancy mission. Final draft.
- World Health Organization and UNICEF (1997). *The sisterhood method for estimating maternal mortality: guidance notes for potential users*. Geneva. WHO/RHT/97.28. UNICEF/EPP/97.1.

See also *Annex 13* in this manual for further insights on the Somali health sector.

### Exercise 3 Projecting aid to the health sector, in order to reach some set targets

The table below shows selected indicators for the Democratic Republic of the Congo, directly or indirectly related to health. The source is WHO, National Health Accounts, modified for this exercise. All presented data refer to 2006.

| Indicator   | Value         |
|---|---------------|
| 1. Gross domestic product (GDP) in US\$   | 8,543,000,000 |
| 2. Average GDP growth, forecasted for 2006–2010                                   | 4%            |
| 3. General Government expenditure as % of GDP                                     | 22%           |
| 4. Total internal health expenditure (TIHE), as % of GDP                          | 4.3%          |
| 5. General Government health expenditure (GGHE) as % of TIHE                      | 37.1          |
| 6. Private health expenditure (PvHE), as % of TIHE                                | 62.9          |
| 7. Government health budget execution (expenditure, as % of budgeted allocations) | 50            |
| 8. GGHE as % of General Government expenditure                                    | 7.2           |
| 9. External resources for health as % of TIHE                                     | 28.8          |
| 10. Total internal health expenditure per capita at exchange rate (\$)            | 6.06          |
| 11. Government health expenditure per capita at exchange rate (\$)                | 2.25          |
| 12. Total population  | 60,644,000    |
| 13. Annual population growth  | 2.4%          |

For the sake of this exercise, let us suppose that the Government of the Democratic Republic of the Congo has made the commitment to allocate 15% of its budget to the health sector in 2010. This has been announced at a major coordination meeting, where the Ministry of Health has appealed to donor agencies to fill the gap between public internal allocations and financing needs. Some donor officials have made preliminary statements supportive of the proposed financing framework.

The Ministry of Health has also projected that around US\$ 25 per capita will be needed in 2010 (excluding private out-of-pocket expenditure) to sustain the public health sector. As the only health economist in town, you are asked to review the whole issue, and advise the Ministry of Health and development partners about it.

1. *Consider the Government commitment to allocate 15% of its 2010 budget to health. Is this target realistic? Is it desirable from the perspective of the whole public sector?*

Answer:

2. *Consider the estimated financial needs of US\$ 25 per capita. Given the presented data, is the projected expenditure of US\$ 25 per capita realistic?*

Answer:

3. *Based on the available information and using the appropriate indicators, Exercise 3 calculate:*

- a. *What would be the Government expenditure on health per capita in 2010, if the 15% target is attained;*

Answer:

- b. *What would be the gap, in US\$ per capita, to be filled by external assistance, in order to meet the \$25 target in 2010.*

Answer:

4. *Translate the per-capita figures considered so far into absolute expenditure amounts (in US\$):*

- *Total GGHE (if the 15% target were attained)*
- *Total PvHE*
- *External health expenditure (if the US\$ 25 target were attained).*

*Consider again question 1 and 2, in light of these totals. What would be the level of external dependency attained in 2010 by the health sector?*

Answer:

5. *Assume that the same US\$ 25 target is proposed by the MoH to donors in Timor-Leste, with a population close to one million. What in your view could be their likely reaction?*

Answer:

*Note:* For the sake of simplicity, assume that government expenditure as a % of GDP remains constant over the period, as does the relative weight of internal public and private expenditure. In reality, changes in some expenditure parameters impact on the others, so we should expect these shares to change over the period, too.

### Feedback Exercise 3

1. The 15% target was endorsed at a major African conference in Abuja in 2001. It enjoys wide currency, being seen by many policy-makers as a working target, but almost no country is close to attaining it. Given competing and equally vital expenditures across the public sector, lower allocations to health by most ministries of finance are understandable. In the case of the Democratic Republic of the Congo, attaining this target would entail doubling the internal public share to health over a very short time span. A target of 9–10% of general government expenditure looks as more realistic, and sustainable in the long run. Additionally, an expanded funding set at this level would more easily be absorbed.
2. The 2006 level of donor support, at US\$ 1.74 per capita, was much lower than the target of \$25 per capita per year. That donors manage to expand their support to the health sector several times over only four years looks utterly unrealistic. The absorption of such large external funds would also be problematic. Rapid funding expansions like the proposed one tend to promote wastage, particularly in disrupted contexts, where financial management capacity is poor.
3. At the forecasted annual growth rate of 4%, GDP in 2010 would be close to US\$ 10 billion. Maintaining the 2006 Government expenditure share of GDP of 22%, and increasing the allocation to health to 15%, would give US\$ 4.9 per capita (using the projected 2010 population of 66.7 million). The shortfall to reach the projected US\$ 25 per capita per year would therefore be = US\$ 25 - US\$ 4.9 = US\$ 20.1.
4. *Total GGHE* (if the 15% target were attained): US\$ 330 million.

*Total PvHE*: US\$ 559 million.

*External health expenditure* (if the US\$ 25 target were attained): US\$ 1340 million.

The obtained totals are huge sums, unlikely to be shouldered by the Congolese Treasury and by donors as well. The existing serious absorption constraints have already been mentioned.

In case the proposed targets were attained, external assistance would cover a whopping 60% of total health expenditure. The Congolese health sector would become one of the most dependent in the world.

5. It could be positive. After all, many small-population countries all over the world enjoy comparable or higher levels of donor support. As donor allocative decisions are conditioned by government-to-government considerations, small countries are disproportionately benefited.

## Summarizing the findings of a mortality survey Exercise 4

The crisis in Darfur, Sudan, started in 2003 but its origins are remote: recurrent droughts, demographic pressure on the land, state neglect and repercussions from other regional conflicts exacerbated the already precarious situation and fuelled the grievance of opposition groups. With a large proportion of its population displaced, Darfur has become the theatre of the largest humanitarian operation in the world.

A mortality survey conducted in 2004 by WHO and the European Programme for Intervention Epidemiology Training concluded that the crude mortality rate in North Darfur, West Darfur and one IDP camp in South Darfur were all above the emergency threshold (1 death/10,000/day). These findings and the subsequent calculation of the excess mortality toll caused a fierce dispute: in the sensitive political environment of that period, the Government of Sudan rejected the findings.

One year later, the UN Humanitarian Coordinator commissioned a second survey, with the same methodology, to gauge the impact of the overall humanitarian operation and bring some evidence and clarity to an issue poisoned by political positions. Avoiding the previous political controversies and bringing together national and international actors required, therefore, a sustained diplomatic effort, a technically sound study design, large resources and a long preparation.

One of the authors of this manual was the coordinator of this survey: let's assume that you were part of his team.

The key findings of the survey are summarized in the executive summary and table below. After having read the summary and analysed the table, *prepare no more than 3 bullet points with the key messages for the UN Humanitarian Coordinator*, who will deliver a press release to the public (journalists, donor representatives, etc.).

Given the sensitivities of the Darfur crisis, you need to exert extreme caution to prevent any misinterpretation and manipulation of the survey findings. Keep in mind that the audience consists of non-public health specialists and that clarity of language and parsimony are as important as is the content.

The interested reader may wish to consult the original survey report, from which this exercise is drawn:

WHO and Federal Ministry of Health (FMoH) Sudan (2005). *Mortality survey among internally displaced persons and other affected populations in Greater Darfur, Sudan*. Available online at: [www.emro.who.int/sudan/pdf/CMS%20Darfur%202005%20final%20report\\_11%2010%2005.pdf](http://www.emro.who.int/sudan/pdf/CMS%20Darfur%202005%20final%20report_11%2010%2005.pdf), accessed 16 September 2008.

To gain further insights about survey methods and interpretation of survey findings, recommended reading is:

Cecchi F, Roberts L (2005). *Interpreting and using mortality data in humanitarian emergencies: a primer for non-epidemiologists*. London, ODI (Humanitarian Practice Network Paper No. 52). Available online at: [www.odihpn.org](http://www.odihpn.org), accessed 16 September 2008.

### Mortality survey, Darfur 2005.

#### Executive summary (adapted from the original report)

The crisis in Darfur was described in 2004 as the worst humanitarian situation in the world. As of July 2005, around 3.3 million people – or 50% of the total population – have been estimated in need of humanitarian assistance. The international response, slow at the beginning of the crisis, gained momentum in 2004, when Darfur started drawing political attention, with increasing pledges of the donor community, growing numbers of humanitarian workers, and an overall good accessibility to humanitarian aid. Half of the health requirements were funded midway into 2005.

**Exercise 4** In spite of the improvements, the situation is considered precarious, in terms of bad agricultural perspectives for the next planting season and exhausted coping mechanisms of the population.

### Objectives and methods

This survey was commissioned by the UN Humanitarian Coordinator and jointly conducted by WHO, the Federal MoH and State MoH of the three states composing the Darfur region, in partnership with the UN agencies and NGOs. Funding was provided by USAID and DFID. The protocol of the study was submitted to an inclusive peer-review. The Centre for Research on the Epidemiology of Disasters (CRED) provided substantial support in data analysis and report writing.

The **main objective** of the survey was to estimate the mortality between November 2004 and end of May 2005 in the three states, among: IDPs living in accessible camps, IDPs living outside camps, and affected communities in accessible areas. More specifically, the survey aimed to:

- I. describe demographic characteristics of the study populations;
- II. estimate crude and under-five mortality rates (CMR and U5 MR) during the recall period;
- III. analyse changes in mortality between the present and the previous survey;
- IV. analyse differences in mortality between the different groups;
- V. identify the major self-reported causes of death;
- VI. describe basic food, non-food aid and service availability; and
- VII. obtain baseline mortality estimates for calibrating the existing surveillance system.

The survey used a retrospective approach, based on two-stage cluster sampling. Three separate surveys were conducted in each State, each targeting one of the defined study populations. The clusters were randomly allocated from OCHA lists of aid beneficiaries in accessible areas. The second sampling stage used the standard WHO cluster methodology. A total of 90 clusters of 20 households each was included in North and West Darfur, while security prevented the completion of the survey in the South. Data were collected anonymously by teams of interviewers with the supervision of both national and international staff, using a structured pre-piloted questionnaire in Arabic. Data included deaths, births, migration in/out during the study period, demographic characteristics and availability of basic goods and services. Data were analysed separately for each State and study population, and jointly for the three groups in each state, after weighting for stratum population size. For South Darfur, only data referring to IDPs in the camps are presented.

### Main findings

With the exception of U5 (under-five) children in IDP camps in the South, mortality rates are all below the emergency thresholds (CMR: 1 per 10,000 per day; U5 MR: 2 per 10,000 day); however, several 95% confidence intervals of the rates include the emergency thresholds. The decrease in mortality among IDPs from the previous WHO-EPIET survey has been substantial. Even if a direct comparison cannot be established due to the different recall periods and some methodological differences, mortality declined by a factor of almost two in North Darfur and of around three in the West and the South, indicating a positive impact of humanitarian response. Injuries in the North and diarrhoea in the West represent the major self-reported causes of death. More detailed findings are presented in the following table and in the relevant chapter of the full report.

## Summary of main findings

## Exercise 4

|   | North   | West   | South   |
|---|---|--|---|
| <b>Sampled populations</b>                                      |   |  |   |
| IDPs in camps   | 3,961   | 3,597  | 3,188   |
| IDPs outside camps  | 3,570   | 3,120  | –   |
| Affected residents  | 5,024   | 3,815  | –   |
| <b>Mortality</b>  |   |  |   |
| <b>CMR per 10,000 per day (95% CI)</b>                          |   |  |   |
| IDPs in camps   | 0.8<br>(0.5–1.0)  | 0.8<br>(0.5–1.2)   | 0.8<br>(0.6–1.2)  |
| IDPs outside camps  | 0.9<br>(0.6–1.3)  | 0.5<br>(0.3–0.8)   | –   |
| Affected residents  | 0.8<br>(0.5–1.1)  | 0.4<br>(0.3–0.6)   | –   |
| Overall, three groups together                                  | 0.8<br>(0.6–1.0)  | 0.6<br>(0.5–0.8)   | –   |
| <b>US MR per 10,000 per day (95% CI)</b>                        |   |  |   |
| IDPs in camps   | 1.5<br>(0.9–2.4)  | 1.0<br>(0.5–1.7)   | 2.6<br>(1.6–3.9)  |
| IDPs outside camps  | 1.8<br>(0.8–3.4)  | 0.8<br>(0.5–1.4)   | –   |
| Affected residents  | 1.1<br>(0.7–1.7)  | 0.7<br>(0.2–1.7)   | –   |
| Overall, three groups together                                  | 1.5<br>(1.0–2.1)  | 0.9<br>(0.6–1.3)   | –   |
| <b>Three main self-reported causes of death, all ages (%) *</b> |   |  |   |
| IDPs in camps   | Watery diarrhoea (25%)<br>Meningitis (16%)<br>Malaria (12%)               | Bloody diarrhoea (27%)<br>Watery diarrhoea (20%)<br>Injuries (11%)       | Watery diarrhoea (16%)<br>Injuries (14%)<br>Bloody diarrhoea (9%) |
| IDPs outside camps  | Watery diarrhoea, malnutrition (7%)                                       | Bloody diarrhoea (27%)<br>Watery diarrhoea (20%)<br>Meningitis, ARI (6%) | –   |
| Affected residents  | Injuries (55%)<br>Watery diarrhoea (9%)<br>Bloody diarrhoea, Malaria (5%) | Watery diarrhoea (19%)<br>Bloody diarrhoea (10%)<br>Meningitis (10%)     | –   |
| <b>Access to protected sources of water, % **</b>               |   |  |   |
| IDPs in camps   | 95%   | 61%  | 72%   |
| IDPs outside camps  | 46%   | 49%  | –   |
| Affected residents  | 32%   | 45%  | –   |
| <b>Food aid, received, % ***</b>                                |   |  |   |
| IDPs in camps   | 81%   | 86%  | 71%   |
| IDPs outside camps  | 64%   | 52%  | –   |
| Affected residents  | 47%   | 73%  | –   |

\* Excluding others.

\*\* Protected: piped systems, bladder tanks and hand pump.

\*\*\* During the month preceding the interview.

**Feedback** PRESS RELEASE (from the original text)

**Exercise 4** “Mortality in Darfur has declined but the health of the people remains extremely fragile’ concludes the new region wide mortality survey undertaken by the Ministry of Health, UN agencies and NGO partners under technical guidance by WHO and commissioned by the UN Humanitarian Co-ordinator, Manuel da Silva.

Over 70 people, many of whom were trained epidemiologists from Sudan and other nations of the world worked in the field from mid May to mid June. 3100 families, totalling about 26,000 people in the three states of Darfur, were interviewed. The survey examined mortality among displaced in camps, displaced outside camps and residents affected by the conflict between mid November and end of May.

Crude mortality rate was around 0.8/10.000/day in all three population groups in Darfur that is below the international crisis threshold (1 death/10.000/day).

Applying these rates to the crises affected populations (residents, displaced in and out of camps), about 33.000 people died in the last six month. This mortality does not exceed the expected in similar crisis situations.

Injury was an important cause of death in North Darfur accounting for nearly a third of the total deaths. This matches with the observed demographic gap among 15–35 year old males in this State.

In West Darfur nearly half the children died of diarrhoea, which is a preventable condition.

The report also points out that there was a meningitis outbreak in North and West Darfur which was not picked up by the Early warning system, showing that disease surveillance need to be strengthened.

Deaths due to malaria could rise as the rainy season is approaching and preparedness for malaria control needs to be stepped up urgently. Preventable causes of death such as diarrhoea needs consolidation and expansion of water and sanitation interventions.

Deaths due to measles were relatively low due to the successful measles vaccination campaign carried out last year. The next campaign, planned for July, should be implemented without fail to avoid any preventable death due to measles.

In conclusion,<sup>1</sup>

- **the survey confirms a decline in mortality in the recent months compared to the previous period.**
- **However it is crucial to maintain the momentum in the gains made by the humanitarian community and the government as the health situation in Darfur will remain fragile especially in view of the approaching rainy season.**
- **Major progress has been made by the humanitarian community and the GOS in Darfur. We must not allow the situation to slide back.”**

The overall positive findings diffused any major political problem. However, it was decided not to calculate the excess mortality, in order to avoid controversies. In addition, the survey report was posted in the web, but never published.

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1 Note: the three bullet points closing this quotation (not bulleted in the original press release) may be considered as adequate feedback to the exercise.

## Critical analysis of the *Interim Health Policy Guidelines for Kosova 1999*

### Exercise 5

Most ministries of health across the world consider the issuing of a formal health policy as their core duty and prerogative. Health authorities of countries in crisis as well have felt compelled to formulate health policy documents. Any policy document must be thoroughly scrutinized, along several dimensions: *relevance, clarity, depth, realism, comprehensiveness and operational usefulness*.

For this exercise, the *Interim Health Policy Guidelines for Kosova* formulated in 1999 has been selected. It is a well-known example of a health policy conceived in haste, in the midst of dramatic changes and in an uncertain legal and institutional context. Also, it represents the boldest attempt ever documented at carrying out a radical (“big-bang”) health sector reform at the end of a protracted crisis. The document is available online at: [www.who.int/disasters/repo/5635.doc](http://www.who.int/disasters/repo/5635.doc) (accessed 22 November 2008).

**Background.** The 1999 conflict, by ending Serbian rule and placing Kosovo under a UN interim administration, ushered a period of rapid change in the former Yugoslavian province. The sudden inflow of outsiders and external resources, the expected transition to a market economy integrated into Western Europe, and the dire inheritance of years of neglect and civil strife created a propitious environment for radical initiatives.

The health sector was in severe disarray. Its public component was derelict, whereas the parallel services developed by the Albanian opposition had badly suffered during the war. Most qualified ethnic Serbian health workers had left. The health sector was changing under the disparate actions of multiple players acting in isolation. Kosovo was flooded with donors and NGOs, many of them not equipped to deal with the tasks of supporting a recovery process. Many agencies, concerned about accessing aid funding and prone to work in isolation from each other, showed an opportunistic behaviour. Without a health policy put in place early in the transition, the health sector would evolve incoherently, inequitably and unsustainably. “*Speed was felt to be of the essence, as donor programming was underway, and a prime objective was to influence donor relief programming to ensure that it would potentially contribute to development and reform of the health sector*” (Schuey et al., 2003).

Within a few months after the end of the war, Interim Health Policy Guidelines were formulated and introduced. The rationale for the reform package proposed by the new policy was compelling. The old health system was considered beyond repair, and in any case outdated, inefficient and unsustainable. Pushing reforms consistent with Western European models was seen as a logical step forward. Donor assistance had expanded the resources available to implement the proposed reforms. And the political transition would weaken the resistance of interest groups to change. In the view of reform enthusiasts, such a unique opportunity could not be missed.

Moving ahead with such speed had its own drawbacks. The information base was inadequate, whereas local participation was forcibly limited. The unclear political, legislative and financial prospects of the province compounded matters. Furthermore, local capacity to manage the reform process was insufficient. Critics feared that the reform package was too much, too early for Kosovo.

To know more about health policy developments in Kosovo, see:

Campbell J, Percival V, Zwi A (2003). Ministerial challenges: post-conflict, post-election issues in Kosovo’s health sector. *European Journal of Public Health*, 13:177–181.

Ministry of Health (2004). *Health and health care of Kosovo*.

Shuey DA et al. (2003). Planning for health sector reform in post-conflict situations: Kosovo 1999–2000. *Health Policy*, 63:299–310.

**Exercise 5** 1. First, thoroughly read the *Interim Health Policy Guidelines for Kosova*.

2. Now, consider *Part I. Background*.

a. Are the main characteristics of the health sector adequately described?

Answer:

b. Are the causes of the described problems discussed?

Answer:

c. Are you able to identify key aspects about which the analysis is silent, or insufficient?

Answer:

3. Consider the *policy contents*, sketched in *Parts II-V*.

a. Describe in concise terms the key features of the reform package proposed by the health policy guidelines.

Answer:

b. What are in your view the main implicit and explicit assumptions behind the health policy guidelines?

Answer:

c. Highlight the main strengths of the health policy under discussion.

Answer:

- d. **Highlight the main shortcomings of the health policy under discussion. Exercise 5**

*Answer:*

4. **Discussion**

- a. **The health policy foresees an improvement in many aspects of healthcare provision, which is likely to entail expanded resources and increased capacity. What is the policy saying in relation to these two crucial aspects?**

*Answer:*

- b. **Put yourself in the position of a decision-maker engaged in the Kosovar health sector (for instance an NGO manager). How useful will the health policy document be in guiding your choices?**

*Answer:*

- c. **Are you able to foresee the main obstacles likely to be faced by decision-makers intent on implementing these policy guidelines?**

*Answer:*

- d. **Concluding the analysis, try to foresee what happened to this health policy after its formulation.**

*Answer:*

**Feedback Exercise 5** **2a: No.** This short section does not provide the reader with an adequate understanding of the main characteristics of the health sector. Thus, the policy prescriptions that follow lack a solid justification.

**2b: No.** Not even the conflict and its effects on the health system are sufficiently described. The ethnic tensions that subsequently poisoned health system development are overlooked.

**2c:** For instance, key issues like financing sources and levels, projected expenditures, management systems and human resources are omitted. Some details are given later in the document (see *Section V*). A clearer structure, whereby the analysis precedes policy prescriptions (which logically proceed from it) would have made the document more convincing.

**3a:** This quote taken from Shuey et al. (2003), summarizes very well the reform package.

*“Eight key features of the proposed health system organisation were highlighted in the guidelines. While several of these implied significant health system change, they were all felt to be within the normative range for health services in Europe and reforms in former socialist countries. The key features were:*

*1) A more decentralised approach to primary health care based on developing family medicine teams. This was a shift from an emphasis on specialist care through urban polyclinics and was consistent with reforms in several former socialist countries.*

*2) Specialist care was to be provided by hospital-based or affiliated specialists upon referral from primary care. This implied an end to a two-tier system of hospital and outpatient specialists.*

*3) Catchment areas based on population would determine the size and location of facilities and services. This implied that some facilities might be closed or limited, always an area of controversy.*

*4) Financing would need to remain within the limits of resources likely to be available from within Kosovo in the foreseeable future. This implied no expansion of services, even though the influx of donor funds made expansion possible.*

*5) Public provision of services was to predominate.*

*6) Private practice was to be allowed, governed by proposals regarding the establishment of clear regulations, including private practice for public employees. Regulated private practice was considered the best option to avoid under the table payments, a problem common in health systems with limited public sector funds, including many parts of the former socialist world.*

*7) An essential drugs programme and regulatory agency was to be introduced with an emphasis on efficacy, efficiency, and evidence-based prescribing. This implied changes in prescribing practice and regulation of the mushrooming*

*private pharmacy sector.*

8) *The health system in both provision and employment was to be non-discriminatory.”*

## Feedback Exercise 5

**3b:** Main assumptions seem to include the following:

- Peace, stability and uncontested political leadership, in order to introduce and consolidate the proposed sweeping health policy package;
- Adequate and sustained donor funding, to shoulder the proposed investments and the running expenses of the reformed health system;
- A critical mass of indigenous actors committed to the health sector reform package;
- No significant organized resistance from quarters opposing the reform.

**3c:** The Kosovar health policy guidelines were rationally compelling, and aligned on mainstream European models. As such, they exerted an understandable appeal on indigenous actors eager to close the gap with Europe as quickly as possible. Efficiency-oriented measures were fully justified in light of the wasteful and ineffective health system that the reform intended to restructure.

**3d:** The health policy guidelines set the bar at an unrealistically high level, maybe depositing too much faith on the positive climate generated by the newly-found self-rule. This looks like a generous and well-intentioned effort, inadequately thought-through and negotiated with its key constituencies, and not backed by solid implementing capacity. Kosovars participated only partially in the design of the reform package, and endorsed it only to a degree.

**4a:** Very little. Omitting an explicit estimate of the cost of the reform process weakened its implementation. How better to address capacity constraints is also inadequately discussed.

**4b:** The policy reform platform gives enough elements to the decision-maker committed to its broad implementation. Additional details are needed to fine-tune implementing decisions. However, the reform package omits prioritizing within its main components, which will leave the decision-maker wondering where cuts should be applied, if funding or capacity shortfalls impose them.

**4c:** Resistance of a public unacquainted to the new healthcare delivery model, strong opposition from the medical and hospital lobby, funding shortfalls, difficulty of regulating private healthcare provision.

**4d:** The following quotation, taken from Ministry of Health (2004), neatly synthesizes the outcome of the reform process.

### ***“Success of the Reform***

*The Kosovo health care reform tries to change many things:*

Attitudes, habits and training of the health care professionals;

Orientation and organization of the health care system;

Management structures and practices; and

Management tools such as information systems and medical records.

*This would be a tall order under any circumstances. It is a very tall order in a post-conflict, poor society. How well did Kosovo’s fledgling Ministry of Health do?*

## Feedback Exercise 5

*A general verdict – familiar from many similar contexts – is that the reform was most successful where it tried to change external factors such as organization and training. It was least successful where it tried to change behaviour and attitudes.*

**Organizational Success?** *The reform has helped Kosovo to streamline her health care system all the way from the small punctas through the main family health centres to the Pristina University Hospital. The main groups of health workers have modern job descriptions. The training of family doctors and health care managers is in full swing. New primary care patient records are in use and key components of a new management information system are ready. Earlier vertical structures are now an integral part of the health care system. Most health facilities have been refurbished and re-equipped. The public and the professionals are slowly beginning to accept primary care.*

**Attitudinal Failure?** *The attitudinal and behavioural side of the reform leaves much to be desired. Some municipalities do not understand their responsibility for primary care. Municipal primary health positions are often political prizes. Family medicine gets only lip service. Still handmaidens of the doctors, the family nurses cannot use their newly acquired skills. True teamwork is rare. Hospital doctors look askance at primary care. Primary care is still a “prescribe and refer” revolving door to hospital care in spite of efforts to introduce a referral system. The doctors are fleeing from family medicine to the clinical specialties. Working in the public sector is for many doctors a necessary evil until they have enough expertise or capital to establish a private practice. For the established clinical specialists, it is an opportunity to divert the wealthiest patients from the public sector to their private practices. Greed and corruption occur.”*

The results of the reform process are mixed. Key reform elements effectively introduced include the establishment of family medicine capacity, the formulation of new job descriptions and training programmes, the respect of budget constraints in recurrent expenditure, the restoration of many health facilities.

Other elements of the reform package have lagged behind. The unregulated privatization of health care has progressed. Private out-of-pocket financing is prevalent. Hospitals remain prominent providers of care. The bloated workforce has not been downsized. Support staff remain in excess. The devolution of the responsibility for primary care delivery to municipalities has registered little progress. The health system remains inequitable and inefficient. Donors have been generous as expected, but their funds have been released slowly and through intermediaries. Health services have become more ethnically separated. Underlying political and ethnic tensions have hampered the implementation of the reforms.

## Following information clues

## Exercise 6

This short exercise aims at encouraging the analysis of comparative tables, and at spotting odd findings. Then, preliminary explanations must be conceived, and further data sought and analysed, to confirm or reject the initial hypotheses. The exercise intends also to show how aggregate data may suggest the existence of crucial patterns inadequately highlighted by the available literature. The exercise does not imply any familiarity with the countries from which these data are drawn.

1. **First, look thoroughly at Table 1, which presents key indicators for South-East Asian countries. Which country presents an unexpected pattern? And which is the pattern to be investigated because of its negative implications?**

**Table 1. Health spending and health status indicators in South-East Asia**

| Country          | Health spending per capita (US\$) | Infant mortality rate | Under-five mortality rate | Maternal mortality ratio | Male life expectancy at birth |
|------------------|-----------------------------------|-----------------------|---------------------------|--------------------------|-------------------------------|
| Cambodia (2005)  | 37                                | 66                    | 83                        | 472                      | 60                            |
| Indonesia (2003) | 22                                | 31                    | 41                        | 230                      | 65                            |
| Lao PDR (2003)   | 9                                 | 82                    | 91                        | 650                      | 58                            |
| Thailand (2003)  | 69                                | 23                    | 26                        | 44                       | 67                            |
| Viet Nam (2003)  | 22                                | 19                    | 23                        | 130                      | 68                            |

*Answer:*

2. **Now, try to list possible causes of the unexpected finding that you identified, in order of probability (maximum three explanations).**

*Answer:*

- Exercise 6** 3. *Table 2* complements the first one. Do these data support any of the conjectures you formulated in step 2?

**Table 2. Cambodia 2005. Source of first treatment for respondents reporting illness or injury in last 30 days**

| Source                               | Percentage |
|--------------------------------------|------------|
| Did not seek treatment               | 8.5        |
| Public sector                        | 21.6       |
| Private sector                       | 48.2       |
| Non-medical (mainly informal) sector | 20.8       |
| Other                                | 0.8        |
| <b>Total</b>                         | 100        |

*Answer:*

4. In your view, what factors could explain the low utilization of public facilities shown above?

*Answer:*

5. Now, look at *Table 3* and decide whether its data are consistent with your interpretation of the previous ones.

**Table 3. Cambodia 2005. Health financing sources**

|   |                  |
|---|------------------|
| Government recurrent expenditure per capita | US\$ 4.0         |
| Donor-financed per capita                   | US\$ 8.3         |
| Out-of-pocket per capita                    | US\$ 24.9        |
| Total per capita                            | US\$ 37.1        |
| Total                                       | US\$ 512 million |
| Percentage of GDP                           | 8.3%             |

*Answer:*

6. Try to figure out why in Cambodia the large consumption of private health care translates into such poor health status. **Exercise 6**

Answer:

7. In your view, is the characteristic pattern that you identified unique to Cambodia, or does it suggest a more general pattern? Have you witnessed a similar characteristic elsewhere?

Answer:

8. What should/could be realistically done to address this glaring discrepancy between health spending and health status?

Answer:

The interested reader will enjoy the following report, from which these tables are drawn (with slight modifications): WHO (2007). *Scaling up for better health in Cambodia: a country case study for the Royal Government of the Kingdom of Cambodia/World Health Organization/Post-High-Level Forum on the Health Millennium Development Goals*. WHO/HDS/2007.1. Available online at: [www.hlfhealthmdgs.org/documents.asp](http://www.hlfhealthmdgs.org/documents.asp), accessed 22 March 2009.

On Cambodia, see also in this manual *Annex 12: The reconstruction of disrupted health sectors* and *Recommended reading on selected health sectors in crisis in Module 14*.

### Feedback to Exercise 6

1. Cambodia presents very poor health status indicators, against fairly high health spending per capita. Indonesia and Viet Nam spend much less but achieve better health. Health status in Cambodia looks not much better than in Lao, where total per capita spending on health is only US\$ 9.
2. Possible explanations:
  - a. The identified characteristic might be spurious, as often found in “league tables”, because of poor data, different/unreliable sources, inconsistent collection criteria, etc. Before accepting this finding as trustworthy, additional data must be scrutinized, to verify whether the main finding has to be upheld, and to explain it.
  - b. The Cambodian health sector might suffer from serious allocative or technical inefficiencies, which jeopardize healthcare delivery. In other words, a lot of the money spent could end up squandered.
  - c. The health status of Cambodians might be poor due to factors unrelated to health services, which would justify higher health spending. A quick look at economic figures, such as GDP per capita, could help check whether this explanation deserves serious consideration.
3. The dominant role played by private health providers explains to a certain degree the reported high health spending.
4. Inadequate access to public healthcare facilities might explain their reduced utilization. In fact, public health expenditure in Cambodia is skewed towards urban tertiary facilities and administration. Financial barriers and low quality of care may also be plausible explanations.
5. Health financing looks privatized as markedly as healthcare provision. High out-of-pocket expenditure suggests also a grossly inequitable consumption of health care. Left to its own devices, a commercialized healthcare market leads to health spending inflation. Notice that public (budget plus donors) expenditure reaches US\$ 12, level which would cover large-scale preventive activities with a potential dramatic impact on health status.
6. If the quality of health care is poor, no health-status improvements can be expected, particularly if most provided health services are curative. A “mystery”<sup>2</sup> survey showed that 56% of consultations with private providers were potentially hazardous! As shown in *Table 2*, a large share of healthcare provision can be informal, which seriously affects quality.
7. The discussed pattern is certainly not unique to Cambodia. Lebanon, a post-conflict middle-income country, presents a similar pattern, at a higher spending level. Other countries, like Angola, are likely to suffer from similar flaws, but available data might fail to show clear patterns. An important lesson to be retained is that private financing and provision are frequently bigger than expected. Available data tend to downplay their magnitude. The prevailing policy discourse between government and donors, both public stakeholders, tends to marginalize this crucial issue, or pays only lip service to it.
8. *Question 8*. Correcting such a worrisome situation is forbiddingly difficult, and achievable only after sustained efforts. First of all, government and donors should realize the degree of privatization reached by the health sector, and focus their attention on this issue. According to the presented data, in Cambodia out-of-control privatization looks as the foremost healthcare issue, to be given centre stage in policy debates.

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2 A “mystery” survey is carried out by evaluators who present themselves as patients looking for health care, and collect information about the formulated diagnosis and the prescribed treatment.

Second, resolute efforts should be applied to strengthen those PHC services with the highest beneficial impact on health status. Third, the government should invest in realistic regulatory provisions, which provide positive incentives to competent and well-intentioned private providers. Fourth, public health expenditure should be restructured, in such a way that access to performing public and private not-for-profit health facilities is enhanced, particularly at the periphery.

## Feedback to Exercise 6

*Final remark:* The recovering Cambodian health sector received large investments aimed at building an effective, efficient, equitable and sustainable public healthcare delivery system. After two decades of strenuous, state-of-the-art experimentation, backed by international assistance, the health sector differs remarkably from the shape intended for it. Powerful underlying forces, poorly understood by public actors and therefore not explicitly counteracted, prevailed. Other health sectors emerging from protracted disruption should take notice of this negative lesson.

## Exercise 7 Considering pros and cons of contracting out healthcare provision

*Annex 7*, in the module on *Analysing patterns of healthcare provision*, introduces the reader to the contracting-out model, with special focus on its application in crisis and post-conflict contexts.

One of the referenced articles<sup>3</sup> looks at the experience of contracting out in Afghanistan, where this approach has been applied on a large scale. The authors of the article present a table that summarizes the arguments in favour and against contracting out. We have removed from the table below the arguments in favour and left those that are against it. You have to complete the table with at least 3 points that you believe militate for this approach.

### Arguments for and against contracting

| For | Against   |
|-----|---|
|     | Competition may not exist, especially in low-income countries where there may be no alternative providers |
|     | Contracts may be difficult to specify and monitor   |
|     | Management costs may wipe out efficiency gains  |
|     | Contracting may fragment the health systems   |
|     | Governments with weak capacity to deliver services may also be weak in a stewardship role                 |

<sup>3</sup> Palmer N et al. (2006). Contracting out health services in fragile states. *British Medical Journal*, 332:718–721.

The table below, derived from the original article, presents 5 points in favour of the contracting out approach.

## Feedback Exercise 7

### Arguments for and against contracting

| For  | Against   |
|--|---|
| Allows a greater focus on measurable results   | Competition may not exist, especially in low-income countries where there may be no alternative providers |
| Increases managerial autonomy  | Contracts may be difficult to specify and monitor   |
| Draws on private sector expertise  | Management costs may wipe out efficiency gains  |
| Increases effectiveness and efficiency through competition. Allows governments to focus on other roles such as planning, standard setting, financing, and regulation | Contracting may fragment the health systems   |
| Allows for rapid expansion of health services  | Governments with weak capacity to deliver services may also be weak in a stewardship role                 |

You can also consider these additional points:

- It may improve standardization of the delivered services around a common package;
- It may improve transparency in the negotiation of contracts and attribution of grants;
- It may induce higher cost-awareness;
- It may improve coordination of service providers;
- It may encourage the adoption of innovative approaches and technologies, by stimulating competition among providers.

Remember, however, that this service delivery model is not inherently good or bad, as often stated by its advocates or critics: it is the way it is designed and managed and the context (mainly the capacity of country health authorities) that determine its effectiveness and efficiency during implementation.

## Exercise 8 Explaining mortality changes in an African rural hospital

The real-life data presented in the table below were collected in a first-level referral hospital in the Democratic Republic of the Congo. The table presents intra-hospital mortality, disaggregated by the time of death: the first 24 hours after admission, or thereafter, and by semester: January–June and July–December 2008. The hospital was supported by an international NGO that provided direct technical assistance in the delivery of health care, supplied medicines and consumables, provided incentives to local staff and supported the referral of patients. Health care was free of payment. The NGO left in June 2008 and a new NGO is progressively taking over assistance, but with a less-resourced programme. User fees have been re-established, but at a subsidized level.

|                                     | January – June<br>2008 | July – December<br>2008 |
|-------------------------------------|------------------------|-------------------------|
| Intra-hospital mortality < 24 hours | 1.8%                   | 3.5%                    |
| Intra-hospital mortality > 24 hours | 3.6%                   | 3.5%                    |

### 1. What is the mortality pattern?

*Answer:*

### 2. If you have identified a pattern, please provide all plausible explanations that you are able to think of.

*Answer:*

1. Early mortality (within 24 hours after admission) has almost doubled, contrary to late mortality, which remained stable. Early mortality is related to acute conditions and largely depends on timely presentation and effective emergency care. Late mortality depends also on the nature and severity of the main diseases affecting the served population.
2. Possible explanations to be investigated:
- Patients seek health care at the hospital later, with more severe conditions, because they are aware of the existing financial barriers and of the departure of the first NGO's strong technical staff. They may have also sought care in the informal sector, before attending the hospital.
  - The technical capacity of the staff to deal with acute conditions may have declined since the first NGO left.
  - Transports for referral may have been affected by the NGO withdrawal.

Note: in many cases, a combination of factors is at play.

**Feedback  
Exercise 8**

## Exercise 9 Choosing summary functional criteria to classify health facilities

In countries in crisis, classifying health facilities in homogeneous categories is usually difficult. For instance, some under-performing hospitals may be classified as health centres, while lower-level health facilities may have expanded their functions to match hospitals. Poor reporting combines with inadequate supervision to blur the picture. Sticking to the official rank of the health facility, perhaps determined decades before, would misrepresent its actual service-delivery role. This flaw would produce serious consequences in terms of planning and resource allocation.

This exercise consists of identifying minimum and robust functional criteria for classifying rural health facilities in a poor African sub-Saharan country. Match each health facility of the left-hand side of the table with a minimum set of criteria chosen from the list on the right-hand side of the table, and provide justification for your choice whenever you feel necessary. Be as clear-cut as possible.

You should refer to settings you are familiar with. Note that in different health sectors the terms used to denote health facilities differ. In your choices, give precedence to what prevails in the field, instead of to what should be available according to official statements. Also, note that the criteria chosen for a lower-rank health facility hold usually also for a larger one. In each specific context, the eventual choice will to a large degree depend on the data provided by the health management information system.

| Health facility                            | Criterion/Availability   |
|--|--|
| a. First-referral hospital                 | 1. Functioning ambulance<br>2. At least one medical assistant/clinical officer<br>3. Permanent cold-chain<br>4. 24-hour emergency services |
| b. Large health centre                     | 5. 24-hour emergency surgical services<br>6. At least one resident medical doctor<br>7. (Basic) laboratory<br>8. Maternity ward            |
| c. Small health centre                     | 9. In-patient ward(s)<br>10. Telephone<br>11. Running water<br>12. Regular drug supply   |
| d. Health post / dispensary / basic clinic | 13. Regular reporting (by the health facility)<br>14. At least one health professional<br>15. ...  |

| Health facility                                | Criteria | Remarks |
|--|----------|---------|
| a. First-referral hospital                     | 1.       |         |
|  | 2.       |         |
|  | 3.       |         |
|  | 4.       |         |
|  | 5.       |         |
| b. Large health centre                         | 1.       |         |
|  | 2.       |         |
|  | 3.       |         |
| c. Small health centre                         | 1.       |         |
|  | 2.       |         |
|  | 3.       |         |
| d. Health post/<br>dispensary/<br>basic clinic | 1.       |         |
|  | 2.       |         |
|  | 3.       |         |

**Feedback Exercise 9** Possible working criteria are suggested and commented below:

| Health facility                        | Criteria   | Remarks  |
|--|--|--|
| a. First-referral hospital             | 1. At least one resident medical doctor              |  |
|  | 2. Laboratory  |  |
|  | 3. 24-hour emergency surgical service                | In most settings ensured by non-specialists  |
|  | 4. In-patient wards                                  | A 24-hour nursing shift is usually needed to ensure proper functioning                             |
|  | 5. Ambulance   | In many situations, this criterion is not satisfied  |
| b. Large health centre                 | 1. In-patient ward                                   | Often with few beds. Nursing staff levels help assessing the adequacy of this service              |
|  | 2. 24-hour emergency service                         | Mainly related to acute medical conditions   |
|  | 3. Basic laboratory                                  | Mainly microscopy  |
| c. Small health centre                 | 1. At least one medical assistant / clinical officer | In many health sectors, a health professional of lower rank may be acceptable                      |
|  | 2. Permanent cold-chain                              | The intermittent availability of immunizations should not be considered as adequate for this level |
|  | 3. Maternity ward with midwife                       | Traditional birth attendants should not be considered as professional midwives                     |
| d. Health post/dispensary/basic clinic | 1. At least one health professional                  | In some health sectors, a community health worker is considered as acceptable                      |
|  | 2. Regular drug supply                               | Frequently ensured by ration kits of essential drugs   |
|  | 3. Regular reporting                                 | All too often, non-reporting health facilities are misleadingly considered as functioning          |

Note: to simplify the table, criteria chosen for one given level are not repeated for the level above it. Thus, a "large health centre" would need to feature "permanent cold chain" and "maternity ward with midwife" alongside the specific criteria presented for it.

## Assessing a post-conflict plan to strengthen human resources for health

### Exercise 10

After a long and devastating civil war, Liberia enjoys a period of peace and stability, under the watch of a legitimate government backed by a UN peace-keeping operation. The country has suffered immensely, in its physical assets as well as in its social fabric. Recovering from such a protracted crisis entails huge investments in infrastructures, human capital and governance. So far, the new government has gained the respect of the international community. External assistance is therefore increasing.

The Ministry of Health and Social Welfare (MoHSW) has worked hard to lead the recovery process. In 2007, it has issued a *National Health Policy* and a *National Health Plan*. Within this framework, the Ministry has also produced an *Emergency Human Resources for Health Plan 2007–2011*, which is the focus of this exercise, available online at [www.liberiamohsw.org](http://www.liberiamohsw.org) (accessed 6 April 2009).

#### Basic data on Liberia, updated to 2007

Surface = 111,000 square kms.

Population = 3.2 M, density = 30 inhabitants/square km. Unevenly distributed: 4 out of 15 counties accounting for 70% of the total population (some areas are very scarcely populated).

Population growth = 2.4% per year; the population will be 3.6 M in 2011.

0–18 years group = 54%, under 5 years = 15%, over 65 years = 3%.

GDP per capita declined from US\$ 1269 in 1980 to US\$ 163 in 2005.

Government health expenditure about US\$ 3 per capita, equivalent to 7% of total Government expenditure.

75% of people living on less than US\$ 1 per day.

#### Health situation (according to a survey of 7500 households, 2007)

Total fertility rate = 5.2; % of women using contraception = 11%

Antenatal care coverage = 79%; deliveries assisted by skilled health professionals = 46% (37% in health facilities)

Maternal mortality ratio = 994/100,000

Children 12–23 months fully vaccinated = 39%, with no vaccination at all = 12%.

Nutritional status: 39% of children stunted, 7% wasted, 20% underweight. Breast feeding practices are good.

Most frequent diseases: malaria, ARI, diarrhoea, worms, skin infections.

Infant mortality rate = 71 per 1000 live births per year.

Under-five mortality rate = 110 per 1000 per year.

These mortality rates refer to the 5-year span before the survey; in the period 10–14 years before they were respectively 139 and 220/1000. This spectacular halving of infant and child mortality rates in a 10-year period probably reflects the end of the civil war.

HIV prevalence = 1.5% (much lower than the 5.7% estimated in 2006, from sentinel sites biased towards urban areas).

## Exercise 10

**HR situation** (selected data from a rapid assessment [RA] carried out in 2007)

Health network = 18 Hospitals, 50 Health centres, 286 Clinics, 9 Training institutions.

Total workforce around 5000; 4000 of them are on the Government payroll (1400 of them are under-skilled, 1600 are administrative and ancillary staff). See the table below for selected categories of health staff.

Staff deployment: one county (Montserrado, where the capital Monrovia is located) with 30% of the personnel. The county ratios of health workers/population range from 1/773 to 1/8309 (ratio 1: 11)

Salaries are very low. Few women hold management positions.

Some other problems identified by the RA:

- few high-level cadres. Need of intensive and sustained retraining and upgrading;
- heterogeneous training, qualifications, employment arrangements;
- poorly trained "by a multitude of small, disconnected institutions and initiatives".

By the end of 2007 the MoHSW issued an *Emergency HR for health plan, 2007–2011*, with the scope of "stipulating staffing targets of the 10 major categories of health personnel". This was done taking into consideration:

- current functioning facilities,
- the Basic Package of Health Services formulated by the MoHSW,
- the WHO staffing model (2004),
- annual population growth (2.4%),
- current available staff and staffing level (from the RA),
- likely attrition of the workforce (not computed yet, but reckoned beyond the "physiological causes" like retirement, disease, death, etc. There is concern of internal siphoning from the public to the private sub-sector and migration abroad. Some skilled professionals may also return),
- output from training programmes,
- the economic situation of the country. GDP growth is forecast at 2.6%; Government budget allocations to health are assumed to grow in absolute terms, as well as in proportion of total Government expenditure.

For the John Fitzgerald Kennedy Teaching Hospital in Monrovia some additional criteria were adopted in order to quantify the staff in need.

The following table presents the active health workers in 2007 according to the RA, alongside 2011 projected targets, for selected categories.

| Category of Personnel | Existing in 2007 | Projected to 2011 | Remarks   |
|-----------------------|------------------|-------------------|---|
| Medical Doctors       | 186              | 236               | The 2007 figure substantially diverges from the one provided by the Liberia Medical Board, which lists 122 doctors, 87 of them nationals. Out of 122, 51 (42%) work for the MoHSW, and 71 (58%) practice privately or are employed by NGOs. |

**Exercise 10**

| Category of Personnel | Existing in 2007 | Projected to 2011 | Remarks  |
|-----------------------|------------------|-------------------|--|
| Physician Assistants  | 236              | 492               | No details about these health workers are provided by the HR Plan. |
| Registered Nurses     | 454              | 541               |  |
| Certified Midwives    | 297              | 674               |  |
| Nurse Aides           | 1091             | 564               |  |
| Pharmacy Personnel    | 31               | 192               | Includes pharmacists, pharmacy and dispensary technicians.         |
| Laboratory Personnel  | 149              | 520               | Includes laboratory technicians and assistants.                    |
| Radiology Personnel   | 22               | 56                |  |

**Questions:**

1. Was a rapid assessment an appropriate procedure to get a baseline for HR information in the Liberian context? Comment on this, stressing alternatives (if any).

*Answer:*

2. Consider the criteria adopted to quantify the staffing needs for 2011. Have any important criteria been overlooked?

*Answer:*

3. The emergency plan estimates that the doctor requirements for Liberia in 2011 would stand at 236. This will give a ratio doctor to population of around 1/15,000, against the present one of 1/26,000 [Ghana = 1/10,000; Gambia = 1/8,000; Uganda = 1/20,000; the WB recommends for Sub-Saharan Africa a ratio = 1/2500]. Some HRD guidelines suggest that in stable health sectors, 25% of the doctors should be specialists. The Emergency Plan opted for 15%.
  - a. Comment on these targets. Beyond medical doctors to population ratios, which other criteria should be considered when setting targets for this category?

*Answer:*

**Exercise 10**

- b. Are there other implications from the figure of 236 doctors projected to 2011 by the emergency plan?

Answer:

4. The *Emergency HRH Plan* envisions a doubling of the strength of *Physician Assistants* over five years. Comment on the appropriateness of such a target and on its feasibility, in the Liberian context.

Answer:

5. The *Emergency HRH Plan* envisions a large expansion of the ranks of the midwives, projected to grow from 297 in 2006 to 674 in 2011. Assess the soundness of this target, relating it to the present and future workload of this category, in terms of attended deliveries.

Answer:

6. Looking at the figures provided above (referring to some health categories), there could be some problems with training programmes (particularly with pre-service training).

- a. In which categories will these problems be more serious?

Answer:

- b. Any suggestion about ways of overcoming them?

Answer:

Feedback  
Exercise 10

1. The rapid assessment exercise was an appropriate choice, provided it was carefully prepared, with clear, tested guidelines and trained surveyors, and rigorously carried out in the field. Too often, rapid assessments turn out to be messy processes producing unreliable findings. See *True Story No 5* for the eloquent example of Iraq.

An alternative approach, particularly suitable in a small country like Liberia, is the study of health workers staffing a sample of health facilities, and from the findings of such a study to infer the characteristics of the whole workforce, and consequently the corrective interventions needed to restructure it. Of course, the sample must be chosen so as to be representative of the whole situation. Another consideration to be kept in mind is that the HR situation described by the *Emergency Plan* is fairly typical of post-conflict, poor health sectors. Studying the experience earned elsewhere might greatly help decision-makers.

2. The post-conflict expansion of the healthcare network, with new and rehabilitated health facilities added to those functioning in 2007, seems to have been neglected by the projections. Even without an expansion in the number of health facilities, existing ones might increase their service loads (and maybe increase their staffing needs) because of easier access and better supply. Also, no attention was paid to private health providers, as potential employers of health workers. If the private sub-sector is expected to thrive in the post-conflict period, allowance for additional health workers should be made in the training projections, particularly for those categories more demanded by the market, like pharmacists.

- 3a. The targets proposed by the *Emergency HRH Plan* are fairly modest, hence realistic in the dire conditions in which the Liberian health sector finds itself. This modesty of aims contrasts with most recovery plans, which adopted ambitious normative staffing criteria totally disconnected from field realities, and (predictably) failed to attain them.

Population ratios are useful for long-term planning purposes. In the short term, however, staffing needs, largely determined by the existing infrastructure, take precedence. A health sector with a small and mainly derelict hospital component, like the Liberian one, needs a limited number of medical doctors and hospital nurses.

- 3b. As the duration of the training of doctors exceeds the 5-year time span of the *HR Emergency Plan*, most measures introduced by it in this field will manifest their effects after 2011. Thus, reaching the 2011 target set by the plan is likely to imply the hiring of expatriate medical doctors.

4. A mid-level clinical cadre like the *Physician Assistant* looks as ideally suited for a health sector with a small hospital component, and many PHC-care facilities to be staffed. The low population density in most counties reinforces the rationale for expanding this category. Providing quality training for atypical cadres, like the *Physician Assistant*, is a challenge in most health sectors, due to the shortage of training capacity devoted to it. Before satisfactory results are registered, a substantial investment in training might be needed.

5. The projected 2011 population of 3.6 million will generate between 140,000 and 150,000 births in that year. Supposing that 70% of expected deliveries are attended by trained midwives, and that their average workload is one delivery per working day (totalling about 220 over one year), less than 500 midwives will be needed in 2011. Even after adding a 10–15% of these cadres in management

**Feedback  
Exercise 10**

and training positions, the target proposed by the *HR Emergency Plan* looks too generous, and could be trimmed down.

This discrepancy between staffing needs based on staffing norms and on projected workloads is commonplace. Whenever possible, workloads should be preferred as planning criteria. Unfortunately, as the information needed to estimate them is often not available, planners have to fall back on staffing norms, with their inherent rigidity and tendency to overestimate staffing needs.

- 6a. In small countries such as Liberia, health categories required in reduced numbers, as in the case of pharmacy, x-ray, physiotherapy and mental health, are difficult and expensive to train. Establishing specialist training capacity to carry out only a few courses is certainly inefficient and often ineffective, due to inadequate quality of training.
- 6b. **Answer 6b:** Sending candidates abroad is an option, provided measures to ensure their return after completing their training are taken. Another way to deal with this problem is to negotiate joint ventures with other small countries, so that Liberia offers training programmes in only one or two of these disciplines to indigenous as well as foreign trainees, while neighbours (like Sierra Leone) do the same for other programmes.

## Drawing inferences from the map of a crisis-affected pharmaceutical area

## Exercise 11

Analyse the situation prevailing in the Southern Sudanese pharmaceutical area in 2006, presented in *Annex II*. In particular, try to cover the following aspects:

1. Main shortcomings affecting the pharmaceutical area, in terms of effectiveness, efficiency and equity.
2. Main aspects neglected or inadequately covered, deserving further study. The list of selected indicators presented in the module might assist in identifying the areas that should be urgently studied. Choose 3–4 indicators to be computed a.s.a.p. to further our understanding of the pharmaceutical area. In your choice, consider the cost of collecting the indicators, as well as their intrinsic interest.
3. Main stakeholders active in the pharmaceutical area, whose actions may have a decisive impact on it. With whom should preliminary discussions aimed at strengthening the pharmaceutical area start?
4. Actions to be taken without delay, to start the long-term restructuring of the pharmaceutical area. In identifying the most pressing actions, factor in the work needed to kick-start each one, as well as the time-lag expected before the first results materialize.
5. Consider the approach adopted in the Democratic Republic of the Congo, of decentralized, autonomous competitive distribution, supported by centralized procurement, as presented in the *True Story No 19*. Might this model provide inspiration for policy-makers in Southern Sudan? Which steps might be taken to verify the potential of the Congolese model in the Southern Sudanese environment?
6. Main risks likely to undermine progress in the short- and medium-term. For clarity, divide risks into a) *general* ones, related to the political, economic and security environment, and b) risks *specific* to the pharmaceutical area.
7. Main opportunities existing in the Southern Sudanese pharmaceutical area.

**Feedback Exercise 11** The following remarks briefly suggest how the points raised by the exercise might be developed. A fully worked-out exercise would certainly provide detailed answers, and perhaps would highlight some dilemmas, or issues impossible to address within the limited available information.

1. The pharmaceutical area is fragmented. No comprehensive overview of the field has been carried out. Many supply schemes of medium and small size are operated by a multitude of participants. No policy enforcement, planning and regulation mechanisms are in place. The pharmaceutical policy formulated by the MoH of Southern Sudan might fall short of expectations and true needs. Operations are likely to be ineffective and inefficient, although a proper assessment of these aspects has never been carried out. Knowledge is limited. The way forward has still to be negotiated among stakeholders.
2. The pharmaceutical area must be comprehensively studied, starting with collecting key indicators, like total expenditure on pharmaceuticals, value for money of the purchased drugs, distribution and availability of medicines across Southern Sudan. The mapping of actors and activities should be updated and completed, trying to document better the role of private actors (apparently of marginal importance in 2006, but likely to grow as the context stabilizes). Given their strength, vertical programmes must be studied in detail.
3. The main stakeholders appear to be the Ministry of Health of the Government of Southern Sudan, the Federal Ministry of Health (but its role might shrink quickly), the World Bank, UNICEF, the Global Fund against AIDS, Malaria and Tuberculosis, USAID and Pharmaciens sans Frontières. The MSF family and the Red Cross might reduce their involvement as the humanitarian situation improves.
4. Urgent actions include: a) formulating and introducing a list of essential medicines and standard treatment guidelines; b) establishing an effective coordination mechanism in the pharmaceutical area; c) documenting financing mechanisms, in view of rationalizing them; d) strengthening and expanding existing procurement arrangements (if feasible and desirable) or introducing a new one if needed; and e) reviewing existing supply and storage systems in order to streamline them.
5. Southern Sudan and the Democratic Republic of the Congo share many characteristics: a long history of violence, absence of the state in many peripheral areas, extremely poor infrastructure, severe underfunding of the health sector, and heavy reliance on NGOs and charities for health service delivery. However, the Democratic Republic of the Congo comes out better in terms of indigenous expertise and organization of health services. Also, information and knowledge are stronger in the Democratic Republic of the Congo than in Southern Sudan.

These considerations suggest that putting in place a performing management mechanism in the latter might be even more challenging than in the former. Having said that, many of the features of the schemes piloted in the Democratic Republic of the Congo look in principle adapted to Southern Sudan. To verify whether that model is applicable to Southern Sudan, a thorough field study of the Congolese experience might be carried out by a team of Southern Sudanese expert stakeholders. Then, a provincial autonomous depot in line with the Congolese model might be piloted. Its performance would have to be assessed after 2–3 years of operation. The approach should be replicated according to the findings (if these are found as unambiguously positive).

6. General risks include a relapse to violence; poor governance and corruption; economic stagnation; inadequate investment in communications and transport; and insufficient financing of health expenditure. Risks specific to the

pharmaceutical area are its neglect by decision-makers, the introduction of inappropriate foreign/international models, reluctance of participants to adhere to a common agenda for change, and inadequate capacity that thwarts progress.

## Feedback Exercise 11

### 7. Opportunities.

- a. Introducing a rational drugs policy in the vacuum existing in Southern Sudan might be made easier by the weakness of vested interests. This opportunity holds especially in the regulatory field, where lean, modern, adapted provisions may be introduced afresh.
- b. The modest weight of hospitals and of the medical profession offers a chance of formulating a balanced, rational list of essential medicines and of enforcing its utilization (the first step towards the launching of a rational drug use programme) across Southern Sudan.
- c. Some procurement and distribution systems are already in place and work reasonably well. They have to be considered in the design of the future pharmaceutical area.

## Exercise 12 Drawing general lessons from documented health recovery processes

The setting is a poor country emerging from twenty years of civil war, where a peace agreement has recently been reached by parties exhausted by the long conflict. A respected retired hospital doctor, not affiliated to any warring group, has been appointed as Minister of Health. He is an experienced, no-nonsense person, genuinely committed to helping the health sector to recover from total disruption. You were chosen as his senior policy adviser, due to the experience about recovery processes you have gained elsewhere.

**Step 1:** First, have a thorough look at *Annex 12*, which presents three condensed country case studies of well-documented health recovery processes. If you wish, consider also the case study of Kosovo, summarized in *True Story No. 7* and studied in *Exercise 5* in this module. You may also draw from your own experience.

**Step 2:** Try to distil from the analysis of these health sectors in transition a few lessons that, *due to their general validity*, should be considered by the Minister of Health you are advising. Formulate the lessons you intend to stress in clear, concise terms.

**Feedback** Crucial lessons likely to hold also for most countries emerging from protracted crisis are the following:

### Exercise 12

- Trying to rebuild the health sector along pre-conflict lines, without considering the deep changes induced by the crisis, is a mistaken approach.
- Entrenched distortions do not heal spontaneously. They have to be addressed proactively and in a long-term perspective. Neglected aspects may grow out of control during the recovery process, inflicting severe damage to the health sector.
- Long-suffering health systems are poor reformers. Their recovery must be gently, patiently – but firmly – nursed, within a comprehensive strategy.
- Short-term solutions have the nasty propensity to evolve into long-term problems.
- A narrow technical approach to recovery, which does not pay adequate attention to the political, economic and institutional context, is likely to run into serious difficulties.
- Without credible resource forecasts and cost estimates, policy discussions are devoid of content. As the resources made available for recovery will certainly fall short of existing needs, hard allocative choices are required.

## Summarizing complex system-wide information for decision-makers Exercise 13

You belong to the team that, over months of analytical work, have assembled the matrix presented in *Annex 13*, which sketches the main features of the Somali health sector. For the sake of the exercise, let us suppose that in an unexpected political turnaround, a peace deal has been struck among various factions and a transitional government has been created.

You are informed that the new Minister of Health has convened a meeting with you, scheduled for tomorrow morning. You have never met the Honourable Minister, because he has lived abroad for more than one decade, practising as a cardiologist, and only recently has returned. The secretary of the Minister tells you that the meeting will be short, because of many competing events scheduled for the same day. You decide to write a short note for the Minister, in which you must condense the messages you consider essential to convey to somebody poorly acquainted with the Somali health sector, but who will have soon to take important decisions about it.

*Task 1: WRITE A ONE-PAGE PORTRAIT OF THE SOMALI HEALTH SECTOR, which covers the following topics:*

- *The political, military, economic and administrative environment in which health service delivery takes place;*
- *Main systemic distortions affecting the health sector;*
- *Recognizable trends;*
- *Main risks and opportunities;*
- *Resource and capacity constraints, present and future;*
- *Key pressing measures, to be taken as soon as possible;*
- *Key long-term measures, to be thoroughly studied and progressively introduced.*

After the meeting (short as predicted and interrupted by several phone calls) with the Honourable Minister, you are informed that a large team of donor officials and consultants is arriving, with the goal of appraising the situation created by the recent peace deal. The incoming team is headed by the World Bank, and includes among other agencies the European Commission, USAID, DFID, UNICEF and WHO. While most of the components of the team are politicians and senior managers, some health experts are also included.

Later on, the secretary of the Minister of Health calls you, to inform that he has found your one-page brief useful, and intends to use its contents for a meeting with the donor team, scheduled for the following day. You are asked to prepare a presentation for the Minister.

*Task 2: PREPARE A POWERPOINT PRESENTATION of maximum fifteen slides, to be given by a speaker only partially familiar with the issues under discussion<sup>4</sup>. The targeted audience is largely composed of financially powerful donor officials, more concerned with political and funding issues than with technical and operational ones.*

To carry out Tasks 1 and 2, you may wish to consult some documentation in addition to the one included in *Annex 13*, starting with the condensed report you already used to complete *Exercise 2*.

Note: while the first task is mainly about presenting a clear, concise, comprehensive technical picture, the second one is about communicating selected messages, formulated in terms accessible to non-health decision-makers.

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<sup>4</sup> You should consider the use of the Powerpoint *Notes Page* facility, with which remarks, caveats and tips can be brought to the attention of the speaker, without being seen by the audience.

## Feedback Exercise 13 A concise portrait of the Somali health sector

### One-page portrait of the Somali health sector

Somalia has been affected by violence since its implosion in 1991. While two weak state administrations have emerged in Northern Somalia, the Central-Southern region remains in turmoil. Countless attempts at negotiating a political settlement have failed. Political and military events have recently aggravated an already precarious situation.

The health space is a patchwork of disparate elements, grown bottom-up in the absence of a general framework. Insecurity, financial and operational fragmentation, inefficiencies, and poor technical and managerial skills contribute to undermining health service delivery. Access to publicly-provided health care, mainly delivered by international agencies and NGOs, is limited. The low uptake of the offered care further reduces coverage. Quality of care is poor and referral capacity is virtually absent.

Alongside a frail public sector, private healthcare provision thrives, selling services of questionable quality. The boundaries between public and private healthcare provision are blurred. Dangerous practices are left unchecked. Health care has become commoditized and deregulated, governed by customer preferences and buying capacity, rather than technical criteria. The private component of the health sector seems dominant, both in terms of financing and provision.

The health field offers poor returns upon investment, both for donors, who are behind most publicly-provided services, and households, who shoulder the cost of private health care. Healthcare delivery seems to have reached a sort of equilibrium at dismal efficiency and effectiveness levels, from where it is unlikely to depart spontaneously. The main risk is the persistence of the present situation. The flip side of the described fragmentation is pluralism, initiative, adaptation and innovation, which can be productively tapped.

Domestic public health financing is negligible. Western aid to health increased from US\$ 3 in 2000 to US\$ 7 per capita in 2006. Disease control programmes absorbed almost half of donor funding for health. Once funds provided by other donors, remittances and out-of-pocket expenditure are taken into account, total per capita financing might be in the range of \$12 to \$20. These fairly high funding levels contrast with the poor performance of the health sector. The dominance of vertical programmes, fragmented and erratic aid flows, the proliferation of small-scale, short-term interventions, security- and logistics-related costs, commercialized healthcare provision, and absent stewardship explain to a large degree this state of affairs. The scope for efficiency gains is enormous.

Lifting the health sector outside of the trap where it fell long ago calls for the application of many measures consistent with a broad, long-term strategic framework. *Key pressing measures* include: a) improving system-wide information collection and analysis, in order to enable informed decision-making; b) rolling out the Essential Package of Health Services to cover an increasing proportion of the population; c) reducing the massive wastage of external resources by introducing effective aid management tools; d) identifying ways to collaborate productively with private healthcare providers.

*Long-term measures* must address the mentioned fundamental distortions that affect the health sector. Human resource development is paramount. Making drug procurement, management and utilization more effective and efficient is another cornerstone. Rehabilitating and rationalizing the derelict healthcare network represents a third key area in which to invest effort, capacity and capital. Health financing and expenditure (both external and domestic) badly need to be reformed. Sound management practice must be nurtured. Finally, the present regulatory vacuum must be addressed by introducing meaningful incentives for healthcare providers. These giant endeavours will succeed only if external and internal stakeholders strengthen their dialogue and strike productive long-term partnerships.

Note: Feedback to task 2 is not included due to space limitations.

## Preparing an introductory note to a health sector in crisis **Exercise 14**

This is the final exercise of the module, and is supposed to be done towards the end of the study programme. The reader who has patiently gone through the whole manual and digested its contents should be by now familiar with disrupted health sectors and the related documentation. This exercise is a sort of graduation test: preparing an introduction to a health sector in crisis, ideally for a junior colleague. If carried out satisfactorily, this final task will say something about the proficiency attained by the user of the manual, after completing its study.

**Step 1:** Read again the foreword to the country introductory notes, *Recommended reading on selected health sectors in crisis*, included at the end of *Module 14*. Look thoroughly at some of these introductory notes.

**Step 2:** Choose a disrupted health sector you are familiar with, or one you intend to study in some detail, and collect the documents related to it that you manage to find. Prepare a list of references.

**Step 3:** Select a few valuable documents deserving to be presented as *Essential reading* on the health sector that you are studying. List any other interesting documents under *Additional reading*. Be critically selective, discarding flawed or irrelevant materials.

**Step 4:** After completing the selection of essential and additional reading, ask yourself a few questions:

- a. Once considered together, are the selected documents providing a fairly comprehensive picture of the studied health sector?
- b. Are they allowing the reader to grasp the broad features of the country's underlying crisis?
- c. Are they offering useful elements to understand the evolution of the health sector over time?
- d. Are they providing different, perhaps conflicting readings of the situation? A diversity of perspectives may greatly enhance the understanding of the chosen health sector.
- e. Is the picture of the health sector coming out of the selected documents interesting? Is it coherent? Is it offering lessons to be considered by decision-makers in the same country or elsewhere?

If some of the answers you gave to these questions are unsatisfactory, you should look for additional, stronger materials. Or, if the chosen health sector has not been adequately studied, you should move to another better-documented country.

**Step 5:** Now, select critical issues to be considered in the study of the chosen health sector, towards which you intend to draw the attention of the reader. Describe them in a concise way. Be selective: in any health sector, multiple issues compete for prominence. Key issues risk to get overlooked, due to the existing competition.

**Step 6:** Add a few introductory words to the references you have selected, to help the reader understand what the related document is about, and its comparative merits.

**Step 7:** Finally, ask a senior health systems analyst to appraise the introductory note you have prepared, and give feedback to you in order to improve it.

Notes: