Guiding principles for strategic resource allocations, including validation mechanism

EXECUTIVE SUMMARY

1. The guiding principles for strategic resource allocations have been developed over the last 18 months at the request of the Health Assembly. This paper builds on previous versions that have been shared and commented on through a web-based consultation, two discussions at the Executive Board, and most recently at the regional committees in 2005.

2. The guiding principles affirm the need to root resource allocation in principles of equity and in support to countries in greatest need, in particular least developed countries. Consistent with this, it also clearly places strategic resource allocation within the context of WHO’s results-based management framework.

3. This paper sets out the context within which the guiding principles were developed; it articulates the seven guiding principles; it elaborates on how strategic resource allocations are derived as part of the results-based budgeting and planning process; and it outlines the parameters of a validation mechanism.

4. The validation mechanism, which provides an objective and transparent relative resource indication (a range) across headquarters and regions for all sources of funds, is precisely what its name implies: it is a tool to validate the outcome of the results-based budgeting and planning process. It is not to be used to determine up-front resource allocations across the Organization. An annex details the methodology and outcome of this mechanism.

INTRODUCTION

5. Based on the Secretariat’s report on resolution WHA51.31, the Fifty-seventh World Health Assembly requested the Director-General to develop guiding principles and criteria for the strategic allocation of resources across the Organization, to be submitted to the Executive Board at its 115th session. The decision states:

   The Fifty-seventh World Health Assembly, after considering the report on regular budget allocations to regions, noting the recommendations contained in paragraph 21, decided to request the Director-General to draw up, in consultation with Member States and regions, guiding principles, based on objective criteria, to be applied in the allocation of funds from all sources, taking into account equity, efficiency and performance, and support to countries in greatest need, in particular least developed countries, which would be considered by the Executive Board at its 115th session. (Decision WHA57(10), 22 May 2004)
6. At its 115th session, the Executive Board reviewed progress made on developing guiding principles for the strategic allocation of resources. The Secretariat was requested to continue the consultative process, and to submit a new draft to the Executive Board at its 116th session.\(^1\) The draft was further discussed at the 116th session, where it was agreed to continue consultations with Member States through the regional committees. A new version would be then prepared for the 117th Executive Board, in January 2006.\(^2\) It was also suggested that a resolution be adopted by the Health Assembly on guiding principles for strategic resource allocations.

7. Based on comments received from the regional committees, as well as on further work by the Secretariat, this document elaborates on the methodology and process of strategic resource allocation within the context of WHO’s results-based management framework. It also details in an Annex a validation mechanism that would serve to ensure equity and that resources are geared towards countries in greatest need, in particular least developed countries, as has been explicitly requested by the Health Assembly.\(^3\)

**RENEWING WHO’S RESULTS-BASED MANAGEMENT FRAMEWORK**

8. Based on experience gained over the last bienniums, a renewed results-based management framework has been developed, with the aim of achieving a more strategic approach to planning, and simplifying key processes. The outline of this framework was shared with the Executive Board during its 116th session in May 2005. It includes an Organization-wide medium term strategic plan that builds on the Eleventh General Programme of Work, the Country Cooperation Strategies, and governing body resolutions.\(^4\)

9. The medium term strategic plan provides direction to the Organization over six years. It serves to support, strengthen and provide continuity to three biennial programme budgets. Strategic objectives form the core of the medium term strategic plan, representing commitments for Member States and the WHO Secretariat. Strategic objectives are further broken down into Organization-wide expected results for the six-year period. The biennial programme budget, flowing from this, contains two-year targets and associated budgets for the expected results described in the medium term strategic plan. A separate report is being shared with the third meeting of the Programme, Budget and Administration Committee, which provides an update on the development of the first medium term strategic plan for 2008-2013 and Programme Budget 2008-2009.

10. A key component of any results-based management framework is the ability to monitor performance over time and evaluate the impact of programmes. WHO’s monitoring capability and accountability will be strengthened by the proposed renewed framework, as planning processes will be better articulated, leading to a more efficient preparation of the programme budget. It should be emphasized that performance relates here to WHO programmes and offices, not achievements of individual Member States, ensuring however that the utmost is done to ensure a strong performance in countries in greatest need, in particular least developed countries.

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\(^{1}\) See document EB115/2005/REC/2, summary record of the tenth meeting, section 1.
\(^{2}\) See document EB116/2005/REC/1, summary record of the third meeting.
\(^{3}\) WHA57/2004/REC/3, summary record of Committee B: third meeting.
\(^{4}\) See document EBABFC3/5.
11. The following diagram outlines the renewed framework:

![Diagram showing the renewed framework for strategic resource allocations]

**STRATEGIC RESOURCE ALLOCATIONS: GUIDING PRINCIPLES**

12. Within this context, guiding principles for strategic resource allocations represent an opportunity to further strengthen the Organization’s results-based management approach. We are moving from a *resource-based* approach, where resources were allocated and then planned for, to a *results-based* approach, where we first decide what it is we should be doing and then derive cost implications and resource requirements to achieve the agreed objectives. This is entirely consistent with a needs-based approach, since objectives and associated resources logically aim to address areas of greatest need.

13. The seven draft guiding principles are enunciated below.¹

*Principle 1*

Strategic coordination and allocation of resources should be first and foremost driven by strategic planning and results-based budgeting, with expected results determined after an Organization-wide planning process, and budgets prepared in a bottom-up manner from estimated requirements of resources to deliver those expected results.

¹ See document EB115/CD/1.
Principle 2

Strategic resource allocations should be firmly rooted in principles of equity and in support of countries in greatest need, in particular least developed countries.

Principle 3

The budget should include all WHO’s financial resources. Resource requirements should be considered in an integrated manner, including income from all sources of funding as part of one Organization-wide budget.

Principle 4

Strategic resource allocations should cover the full planning period of six years. The resource indications should, however, be sufficiently broad, and favour flexibility over rigidity.

Principle 5

Performance of specific programmes or offices should be taken into account in the process. Well-performing programmes or offices must be recognized and their experience shared as best-practice. Programmes or offices that have not been able to deliver expected results will be given attention in order to understand better the shortcomings and adequate support should be provided to enable them to achieve rapid progress.

Principle 6

Three complementary perspectives should be used when defining resource needs:

(a) The programmatic perspective reflects the Organization’s priorities in terms of substantive programme delivery. It is a response to the question “what are the objectives and results WHO wants to achieve?”. These objectives and results stem from the General Programme of Work, Executive Board and Health Assembly resolutions, findings from Country Cooperation Strategies analysis, and other global commitments such as the Millennium Development Goals.

(b) The functional perspective responds to the question “how can WHO best meet its objectives and results?”. It refers to the core functions of the Organization, and how WHO should balance these functions to deliver most efficiently its strategic objectives.

(c) The organizational perspective relates to WHO offices in countries, regions and headquarters. It provides an answer to the question “where in the Organization is the work best and most effectively performed?”. Resources should be directed to where the work is being done, ensuring equity and a focus on countries in greatest need.

Principle 7

The outcome of the planning process and results-based budgeting should be appraised and justified against a validation mechanism, which would provide indicative resource ranges for headquarters and each region.
The actual allocation of resources against the target ranges will be periodically monitored. Although actual allocations may vary or deviate from the targets within parts of a strategic planning cycle, they should balance out over the full period. In case of substantial variation, target ranges may be revised to reflect exceptional changes in circumstance.

STRATEGIC RESOURCE ALLOCATION ALONG THE THREE PERSPECTIVES

14. Translating these principles into practice requires a dual but complementary approach. The first approach relates to the planning process and the three perspectives outlined in Principle 6. The second relates to a validation mechanism based on criteria to ensure equity and focus on countries in greatest need, which will be elaborated in the next section.

15. The starting point of the planning process is the strategic objectives. When identifying strategic objectives, the following criteria were taken into account:1

- the global health agenda, as articulated in the General Programme of Work;
- needs of Member States identified through Country Cooperation Strategies, epidemiological surveys and burden of disease;
- major health challenges of global and regional importance and relevance, as identified through discussions, decisions and resolutions of the Health Assembly and regional committees;
- equity, efficiency and performance, and support to countries in greatest need, in particular least developed countries;
- the comparative advantage of WHO, building on the objectives and core functions of the Organization;
- potential for measurable impact within medium term strategic planning period.

16. Resources required for strategic objectives could be reviewed during subsequent biennial programme budgeting cycles to take into account changing circumstances and emerging needs, and to ensure that the Organization remains responsive to country needs. Furthermore, a key to efficient and effective use of resources will be to find the right balance to ensure all of WHO’s strategic objectives can be appropriately resourced. A high level of resources in one programme should not be seen as compensation for other programmes with insufficient resources.

17. Determining resource requirements to meet the strategic objectives is an iterative process. Based on targets and strategic approaches identified for each strategic objective, a relative resource indication will be provided across objectives by categorizing them as either requiring high, medium or low expected levels of resource, relative to one another. This first step should be seen as a strategic, policy-driven and Organization-wide indication, corresponding to the programmatic perspective

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enunciated in the sixth guiding principle. This would serve both to better guide the development of strategic objectives and the more detailed costing of expected results, as well as to cross-check the outcome of results-based budgeting.

18. The second step, taking into consideration the initial high-level analysis and resource indication, a more detailed bottom-up costing of strategic objectives would be carried out at all levels of the Organization. This is built up from Organization-wide expected results required to reach the strategic objectives. This will include detailed analysis along the functional and organizational perspectives as expressed in the sixth guiding principle.

19. The third step, the outcome of the bottom-up costing would be cross-checked against the up-front strategic indications, possibly requiring several iterations. The medium term strategic plan, which will be presented for decision to the governing bodies, will contain an indication of resources required over six years, reconciling the up-front indication described in step 1 with the outcome of the results-based budgeting described in step 2.

20. The outcome of the planning process and the results-based budgeting will lead to WHO’s specific resource requirements for a two-year period expressed in the proposed programme budget, which will be broken down by headquarters and regions. Recognizing regional specificities, the breakdown within regions (i.e. regional office, intercountry programmes, country programmes) will vary from region to region, in accordance with respective regional policies established by the regional committees and in line with the overall vision and policies of the Organization.

21. This iterative process is aimed at ensuring we are “doing the right thing, in the right way, and in the right place”, and is at the core of results-based management. It will be supplemented, however, by a validation mechanism to ensure that equity and focus on countries in greatest need, in particular least developed countries, are emphasized across all regions, based on objective criteria.

THE VALIDATION MECHANISM

22. The validation mechanism will be used to appraise and analyse the outcome of the development of the medium term strategic plan and the proposed programme budgets. As such, it will cover the entire Organization as well as apply to all sources of funds. It will present percentage ranges for headquarters and for each region as a whole for the full planning period. While the validation mechanism should be seen as an important and transparent point of reference, it will not determine actual resource allocation. Rather, it will inform and validate the results-based resource requirements as part of the development of the medium term strategic plan and associated draft programme budgets.

23. The mechanism is based on the consideration of three components:

(a) a fixed component comprising functions that must be carried out at different levels of the Organization, such as normative and statutory functions. The financing of the fixed component can be secured through both the regular budget and voluntary contributions;

(b) an engagement component reflecting regional functions whose cost varies in relation to the number of countries served, including the organizational cost of engaging with all Member States in a given region, regardless of their relative health and socioeconomic status;
(c) a needs-based component reflecting relative health and socioeconomic status along with a population factor, which constitutes the larger part of the total resource envelope.

24. The annex describes in detail the parameters, methodology and outcome of the validation mechanism under consideration.

25. It is important to stress that the outcome of this mechanism is a range, providing a resource indication to validate the outcome of results-based budgeting, and not the other way around. This should not be interpreted as providing actual resource allocations across the Organization, which would negate the fundamental premises of results-based management. It would also not allow for a flexible approach, for example, to deal with exceptional circumstances, such as emergencies and countries in crisis, which cannot reasonably be addressed through any kind of mechanism without compromising its simplicity, objectivity and replicability.

26. As part of the normal planning process, several iterations may be required to ensure that the outcome of the results-based budgeting falls within indicative resource ranges of the validation mechanism, or that deviations are explicitly and clearly justified.

**STRATEGIC RESOURCE ALLOCATION: THE PROCESS**

27. As emphasized at the outset of this paper, strategic resource allocation is an integral part of WHO’s managerial processes, for which the broad timelines are set out below.

28. **Eleventh General Programme of Work (2006-2015).** A final draft of the Eleventh General Programme of Work is being presented to the 117th session of the Executive Board. After discussion at the Board, the General Programme of Work will be submitted to the Fifty-ninth World Health Assembly for approval.

29. **Medium term strategic plan (2008-2013).** Building on the draft General Programme of Work, a draft medium term strategic plan is being developed, including strategic resource indications along the lines articulated in this document. A progress report is being provided to the third meeting of the Programme, Budget and Administration Committee and the 117th session of the Board in January 2006. It will then be submitted to the regional committees in 2006, to the 119th session of the Executive Board in January 2007, and then to the Sixtieth World Health Assembly.

30. **Proposed programme budget (2008-2009).** Based on the draft medium term strategic plan, the biennial proposed programme budget is also being developed. It will be submitted alongside the medium term strategic plan to the regional committees in September 2006, to the 119th session of the Executive Board in January 2007, and to the Sixtieth World Health Assembly in May 2007.

**ACTION BY THE EXECUTIVE BOARD**

31. The Executive Board is invited to consider the proposed approach and guiding principles set out in this document, and the proposed validation mechanism detailed in the annex, which will subsequently be submitted to the Health Assembly for its approval.
ANNEX

GUIDING PRINCIPLES FOR STRATEGIC RESOURCE ALLOCATIONS
VALIDATION MECHANISM

INTRODUCTION

1. The seventh guiding principle for strategic resource allocations states that “the outcome of the planning process and results-based budgeting should be appraised and justified against a validation mechanism, which would provide indicative resource ranges for headquarters and each region”. This annex details the proposed parameters and methodology underpinning the validation mechanism, and presents the outcome of it.

PROPOSED PARAMETERS AND METHODOLOGY

2. As already indicated in the main document, the validation mechanism will be used to appraise and analyse the outcome of the development of the medium-term strategic plan and the proposed programme budget. It will cover the entire Organization as well as apply to all sources of funds. It will present percentage ranges for headquarters and for each region as a whole, for the full planning period. While the validation mechanism should be seen as an important and transparent point of reference, it will not determine actual resource allocation. Rather, it will inform and validate the results-based resource requirements as part of the development of the medium-term strategic plan and associated proposed programme budgets. The resource distribution baseline against which this mechanism is applied is the 2006-2007 programme budget, as approved by the Fifty-eighth World Health Assembly in May 2005.

3. This section details the different components of the mechanism and lays out the different options that have been discussed, and that are being proposed. By way of reminder, the different components are:

   (a) a fixed component comprising functions that must be carried out at different levels of the Organization. The financing of the fixed component can be secured through both the regular budget and voluntary contributions;

   (b) an engagement component reflecting regional functions whose cost varies in relation to the number of countries served, including the organizational cost of engaging with all Member States in a given region, regardless of their relative health and socioeconomic status; and

   (c) a needs-based component reflecting relative health and socioeconomic status along with a population factor, which constitutes the majority of the total resource envelope.

4. It is important to state that emergencies are not considered as falling within the validation mechanism. By emergency, reference is made to recent, unforeseen emergencies and crisis situations that could not be reflected through any of the indicators used in the validation mechanism.
A. Fixed component

5. The mechanism envisages a fixed component for headquarters, and a fixed component for the regions.

6. **Headquarters** is covered entirely by the fixed component. This is an informed estimate based on an analysis of the functions critical to achieving the strategic objectives and where they can be carried out most efficiently and effectively. These functions include developing global policies, norms, standards and guidelines; analysing, managing and disseminating global health information; governance; engaging with key partners at the global level; as well as providing the Organization-wide managerial and administrative functions that enable the effective delivery of WHO’s programmes.

7. The appropriate resource indication for headquarters will very much depend on the nature of the strategic objectives. These are still under discussion and will be refined over the coming months as part of the development of the medium term strategic plan. A key consideration will also be the on-going efforts to better reflect the balance of work carried out across the three levels of the Organization. Maintaining WHO’s strong and critical global role as the standard and norms setter in global public health suggests a realistic share for headquarters of approximately 25% to 30% of total resources, more or less equivalent to the 2006-2007 level. For modelling purposes, this value is set at 28%.

8. The **regional** fixed component relates to those functions that do not vary greatly with the number of countries served or the relative need of those countries. This includes, for example: the adaptation of global policies, norms, standards and guidelines to specificities of the region and subregions, and analysis and feedback of regional experience to the global level for further refinement; analysis and management of regional health information for regional and subregional policy implications; identification, negotiation and maintenance of regional and subregional partnerships to further the common agenda in public health; the fixed costs of servicing regional consultation mechanisms with Member States; as well as providing the managerial and administrative functions that enable the effective delivery of WHO’s programmes at a regional level. These functions may be carried out from the regional office or from country offices.

9. Building on what the Organization is spending on average in these areas across each region, a realistic indication for this component could be between 15% and 20% of total resources, or roughly 2% to 3% per region. This significant amount reflects the very important normative and statutory role regions play, be it at the regional office or country office level. For modelling purposes, this value is set at 15%.

B. Engagement component

10. The **engagement component** assigns an equal dollar amount for each Member State. It reflects, for example, the costs of carrying out essential functions with all Member States, regardless of their relative need, such as engaging politically with all Member States, and stimulating technical cooperation among countries.

11. The engagement component should not reflect costs related to country office operations. Rather, it is a token amount to reflect the fact that WHO, as a truly global Organization, serves all Member States. While this component is not intended to relate to administrative functions, adding a resource weighting by number of countries reflects the reality of higher administrative costs associated with having more countries in a given region. While it represents a much smaller share than either the fixed
or the needs-based components, it is nonetheless useful to reflect at an aggregated regional level the reality of WHO’s work.

12. A number of regions have within them territories and areas that are under the jurisdiction of Member States. These are factored in the engagement component at the level of 50% of a Member State. In total, the engagement component would make up some 2% of the total resource envelope.

C. Needs-based component

13. The needs-based component, true to the second guiding principle of strategic resource allocation, represents the largest share of the mechanism. Indeed, having deducted the fixed and engagement components from the overall resource envelope, 55% to 60% of total resources remain for the needs-based component.

14. Significant efforts have been made to keep the mechanism objective, fair and transparent, based on principles of equity and support to countries in greatest need. The needs-based component comprises several factors, which will be examined in turn: the needs-based index taking into account health and socioeconomic indicators; the groupings of countries and weighting of the index; and a population factor.

Needs-based index

15. A number of potential health indicators or proxy indicators have been assessed. Life expectancy at birth was retained for the purposes of this mechanism for a number of reasons: although not complete, it has the most reliable and complete data available at country level; all other mortality-related indicators have a high correlation to life expectancy; and it is considered the best standard summary measure of population health available. The source used is the 2003 figures, as published in The world health report 2005.¹

16. Other possible indicators examined include the under-five mortality rate (U5MR), measles coverage, skilled birth attendance coverage, years of life lost (YLL), and burden of disease (DALYs or HALEs). While these may be more in line with, for example, the MDG goals, or more reflective of real health gaps, they are also less reliable, comparable and available across countries. Most of them, furthermore, presented a very high correlation with life expectancy at birth.

17. With regard to the socioeconomic indicator, gross domestic product (GDP) per capita, adjusted for purchasing power parity (PPP), was felt to best reflect living standards and was the only economic indicator available for all WHO Member States. The source used is the 2003 figures, prepared by WHO for The world health report 2006, under preparation.

18. Gross national income was also considered as it could be a better reflection of potential resources available at household level than GDP but the data set is incomplete. Another option considered was the World Bank classification of countries (i.e., high-income, middle-income, low-income, etc.). While this provides standard and readily available information, it does not reflect purchasing power parity; was developed in the context of loan eligibility, which is quite different from the WHO setting; and would be difficult to combine with other indicators.

19. Within the needs-based context, the issue of including the education factor must be considered. It has significant impact on health outcomes, is considered to be a good proxy of health need, and was accepted as a valid factor to consider when resolution WHA51.31 was adopted in 1998. It can also be argued that it makes the index more favourable to least developed countries as they typically have comparatively lower education standards. On the other hand, education is only one of many social determinants of health, and it can be argued that it is not central to WHO’s mandate.

20. In conclusion, two options are proposed for the needs-based index. The first option is to consider only two indicators: life expectancy at birth and GDP per capita, PPP adjusted. Each would carry a similar weight. The second option is to add an education indicator into the index. In this case, using UNDP’s Human Development Index is suggested since it is widely accepted as being a valid measure of health and socioeconomic need, was used in resolution WHA51.31, and already captures the first two indicators. It adds an education factor, which is a combination of the adult literacy rate and the combined primary, secondary, and tertiary gross enrolment ratio. The source used is UNDP 2003 figures, as published on the UNDP web site.1

**Groupings of countries and weighting**

21. The needs-based index, whichever one is chosen, will always contain a certain degree of uncertainty linked to the nature of available data at country level. This is often to the disadvantage of resource-poor countries that have less reliable data, often underestimating their actual needs. For this reason, and to avoid long debates about data accuracy for any given country, it is suggested to group countries according to their relative need as indicated by the needs-based index.

22. Introducing groupings provides the possibility of assigning greater weight to one group compared to another – in other words, of modifying the progressivity of the needs-based index. This methodology can be used to give greater importance to groups that include those countries in greatest need.

23. For the purposes of the validation mechanism, it is suggested to introduce deciles of health needs, i.e. to assign countries to ten different groups of about 20 countries each, according to their relative needs-based index. Using deciles represents a balance between having too few groupings, which implies greater variations between countries of a given group, and having too many groupings, which would defeat its purpose. Deciles in the validation mechanism are ranked from 1 to 10, with 1 representing countries in greatest need, and 10 countries with lowest needs.

<table>
<thead>
<tr>
<th>Decile</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Progressivity: 20%</td>
<td>3.6</td>
<td>3.0</td>
<td>2.5</td>
<td>2.1</td>
<td>1.7</td>
<td>1.4</td>
<td>1.2</td>
<td>1.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>30%</td>
<td>6.3</td>
<td>4.8</td>
<td>3.7</td>
<td>2.9</td>
<td>2.2</td>
<td>1.7</td>
<td>1.3</td>
<td>1.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
</tbody>
</table>

24. Looking at the geometric progression of each grouping would suggest a 20% progressivity rate, from one decile to another. This progressivity, however, proves to be less favourable to those regions such as the African Region with a large number of least developed countries, than the current budgeted

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resource distribution for 2006-2007. In order to place greater emphasis on countries in greatest need, it is thus being suggested to introduce a 30% progressivity rate, the impact of which is shown in Table 1. The majority of the least developed countries as per the World Bank’s classification are falling within the three neediest deciles, and are therefore being given extra weight.

25. Furthermore, the last two deciles, which represent those countries with the highest life expectancy and GDP per capita are given a weight of zero. Thirty-nine countries are thus, in effect, not accounted for in the needs-based component of the validation mechanism.

**Population factor**

26. The final step in developing the needs-based component is to introduce a population factor so that regions with countries with larger populations would account for a greater share of resources than they would if the same countries had smaller populations. However, a statistical smoothing technique must be applied to the population figures, given that the resources WHO needs to cooperate effectively with countries are not directly proportionate to population size. The source used is the United Nations Population Division estimates of resident population for the year 2003.¹

27. From a theoretical perspective, the larger the potential economies of scale, the more compressed the population factor should be, since population size becomes less important in determining the amount of resources required to carry out a given programme. There are a number of smoothing techniques that compress to a greater or lesser degree the impact of population size. Two commonly used standard techniques are the square root and the adjusted log population squared (ALPS). For the purposes of modelling the outcome of the mechanism, both methodologies have been retained.

- The square root methodology simply applies this function to the population size. Thus if under normal circumstances the ratio between, say, Palau and China, to take two extremes, is 1:65 000, applying the square root reduces this ratio to 1:220.

- The adjusted log population squared method provides greater compression than the square root methodology. To take the same example, the ratio between Palau and China would be reduced to 1:67. The ALPS methodology gives less weight to more populous countries than the square root. This is the methodology that was used for the formula leading to resolution WHA51.31.

**THE OUTCOME OF THE VALIDATION MECHANISM**

28. For modelling purposes, the following shares have been retained for the different components of the mechanism:

- Fixed component for headquarters: 28%
- Fixed component for regions: 15%
- Engagement component: 2%
- Needs-based component: 55%

29. The outcome of the validation mechanism factors in all these components. The needs-based component methodology described in the previous section is applied to the remaining 55% of total resources after having deducted the fixed and engagement components. Each country is assigned an index value based on need indicators, each need indicator having a similar weight; each country is then assigned to a decile, which is attributed a certain weight based on a 30% progressivity rate; the smoothed population factor is then multiplied by the weighted needs-based factor of each country. Countries of a given region are then summed up providing the relativities for the needs-based component of the regional resource indications. An illustrative example is provided below.

<table>
<thead>
<tr>
<th>Region Country</th>
<th>Scaled life exp. at birth</th>
<th>Scaled log of GDP/capita</th>
<th>Needs index</th>
<th>Decile needs-based weight</th>
<th>Smoothed population factor</th>
<th>Needs based weight X smoothed pop. factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>XX YYY</td>
<td>0.76</td>
<td>0.50</td>
<td>0.37</td>
<td>5</td>
<td>2.20</td>
<td>0.32</td>
</tr>
</tbody>
</table>

Life expectancy at birth scaled to range between 0 and 1 based on minimum and maximum observed among the 192 WHO Member States

Natural log of GDP per capita calculated. Then rescaled to range between 0 and 1 based on minimum and maximum observed among the 192 WHO Member States

Deciles of needs index calculated for the 192 WHO Member States. Decile 1 (high need) to decile 10 (low need)

Needs index calculated as 1 minus the arithmetic average (equal weight) of the two indicators

Relative needs weights for funding set for each decile. Deciles 9 and 10 given weight of zero. Decile 8 given weight of 1. Each subsequent decile given 30% more weight than previous decile

Applies either the square root or ALPS methodology to the population size

Provides the final needs-based component index value for each country; this is then added up for all countries within a given region, providing the relativities for the needs-based component of the mechanism

In the variation using HDI, the first three steps are replaced by taking (1-HDI), as representing the needs-based index

30. The fixed component and the sum of the engagement component are added to the needs-based component, to give the total regional resource indication. The table below presents the outcome depending on the four possible permutations.

<table>
<thead>
<tr>
<th>Needs-based index options: Life Exp. &amp; GDP/cap.</th>
<th>HDI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population smoothing options: SQRt ALPS SQRt ALPS</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>06-07 Baseline</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Headquarters/Global*</td>
<td>30.0</td>
<td>28.0</td>
<td>28.0</td>
<td>28.0</td>
</tr>
<tr>
<td>Regional Office for Africa</td>
<td>28.7</td>
<td>27.0</td>
<td>28.9</td>
<td>26.4</td>
</tr>
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<td>Regional Office for the Americas</td>
<td>6.0</td>
<td>7.6</td>
<td>8.2</td>
<td>7.4</td>
</tr>
<tr>
<td>Regional Office for South-East Asia</td>
<td>10.8</td>
<td>11.8</td>
<td>9.5</td>
<td>12.1</td>
</tr>
<tr>
<td>Regional Office for Europe</td>
<td>6.1</td>
<td>8.1</td>
<td>8.6</td>
<td>7.1</td>
</tr>
<tr>
<td>Regional Office for the Eastern Mediterranean</td>
<td>11.5</td>
<td>9.9</td>
<td>9.2</td>
<td>10.8</td>
</tr>
<tr>
<td>Regional Office for the Western Pacific</td>
<td>7.0</td>
<td>7.7</td>
<td>7.6</td>
<td>8.1</td>
</tr>
<tr>
<td>Total</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

* Includes UNICEF/UNDP/World Bank/WHO Special Programme for Research and Training in Tropical Diseases; WHO Centre for Health Development, Kobe, Japan; Special Programme of Research, Development and Research Training in Human Reproduction; exchange rate hedging; Information Technology Fund; Real Estate Fund; Security Fund (~5% of total budget)
31. As the table illustrates, the differences between the four permutations, depending on which needs-based index and which population smoothing technique is used, are not drastic. It is also apparent that different regions are affected by different variations. For instance, the European and Eastern Mediterranean Regions are much more sensitive to the education factor than the other regions: the European Region is negatively affected by the inclusion of the education factor, whereas the Eastern Mediterranean Region is positively affected by this factor. For the African and South-East Asia Regions, the key determining factor is the population smoothing technique, where the South-East Asia Region, with fewer but larger countries, stands to gain from the square root methodology, while the African Region, with many countries of smaller population size, benefits from the ALPS methodology. This simple analysis points out the inherent difficulties of ensuring equity and consensus across the Organization through such models.

32. As stated in the guiding principles, however, what the mechanism will provide is an indicative range. Working with ranges makes sense for several reasons: this mechanism is to be used as a validation tool only, and not as an actual resource allocation model; it can avoid the very divisive debates that such models can engender; and it still serves the purpose spelled out in decision WHA57(10) to ensure equity and support to countries in greatest need, in particular least developed countries.

33. It is thus suggested to take the average relative resource indication of these four permutations and apply a +/- 10% relative range to this average, as indicated by the table below. Applying a relative range ensures that all regions, regardless of size, operate within the same relative range between minimum and maximum values.

34. This would imply that over the six-year strategic planning period, actual resource allocations should fall within these ranges, or be adequately justified if they do not (for example, to account for a drastic change of circumstances in one region or another).

<table>
<thead>
<tr>
<th></th>
<th>Baseline</th>
<th></th>
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<th>Six-year relative resource indication</th>
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<tr>
<td></td>
<td></td>
<td>Average</td>
<td>Minimum</td>
<td>Maximum</td>
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</tr>
<tr>
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<td>10.1</td>
<td>9.0</td>
<td>11.1</td>
</tr>
<tr>
<td>Regional Office for the Western Pacific</td>
<td>7.0</td>
<td>7.8</td>
<td>7.0</td>
<td>8.6</td>
</tr>
</tbody>
</table>

* Includes UNICEF/UNDP/World Bank/WHO Special Programme for Research and Training in Tropical Diseases; WHO Centre for Health Development, Kobe, Japan; Special Programme of Research, Development and Research Training in Human Reproduction; exchange rate hedging; Information Technology Fund; Real Estate Fund; Security Fund (~5% of total budget)

35. The outcome is not very different from the 2006-2007 budget, which was developed through a results-based budgeting approach. This demonstrates that the current resource allocations are already placing greater emphasis on least developed countries.