

## **Strategic budget space allocation**

### **Report by the Director-General**

The Director-General has the honour to transmit to the Executive Board at its 137th session the progress report submitted by the Chair of the Working Group on Strategic Budget Space Allocation (see Annex).

ANNEX

**REPORT OF THE WORKING GROUP ON  
STRATEGIC BUDGET SPACE ALLOCATION**

1. The 136th session of the Executive Board on its decision EB136(5), considered the report by the Working Group on Strategic Budget Space Allocation and expressed its appreciation to the members of the Working Group for their diligence in developing a methodology in an objective and timely manner.<sup>1</sup> It endorsed the guiding principles recommended and requested the Working Group to further develop operational segment 1 (technical cooperation at country level) taking into consideration the issues raised during the 136th session of the Executive Board with regards to the methodology, the choice of appropriate indicators and availability of data, and written comments submitted by Member States and report to the Executive Board at its 137th session in May 2015. It also decided to expand the membership of the Working Group to two Member States per region.
2. The following outlines the outcome of the meetings of the Working Group after the EB136 and elaborates on their recommendations and proposed next steps.
3. The Working Group held a teleconference on March 6th 2015 to welcome the new members,<sup>2</sup> review and revise the terms of reference, and discusses the preparation for the face-to-face meeting. It was agreed that the Secretariat will provide the members of the Working Group, in advance to the face-to-face meeting with the synthesis of the proposals received as well as all individual submissions provided by the members.
4. On 8 and 9 April 2015, the Working Group held its third face-to-face meeting and adopted the revised terms of reference with minor changes (Appendix 1). The Working Group reiterated its agreement with the current breakdown of the segments and the guiding principles. However the members expressed their expectations, the importance and the complexity of the task ahead of them.
5. The members agreed that key for developing an effective model is to agree on a limited number of indicators, the population adjustment methodology and a range of possible outcomes to provide flexibility.
6. The Working Group had extensive discussions on classification of countries and population scaling methodologies. It was agreed that classification of countries in deciles is not necessary and normalizing of indicators in the way this done for the UNDP Human Development Index will be appropriate. The Working Group also agreed that further work is require to explore and compare various population scaling that are used by various global institutions such as African Development Bank and UN Economic and Social Council. The members discussed extensively the population smoothing approaches and a few were proposed for consideration.

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<sup>1</sup> EB136(5).

<sup>2</sup> The membership now includes; Belgium, Cameroon, China, Egypt, Finland, India, Malaysia, Lebanon, Mexico, Namibia, Paraguay and Thailand.

7. The Working Group also discussed extensively the different indicators and the proportion of missing values for each of them. They agreed that key criteria for selecting indicators should include availability of data, quality of data, source of information and relevance of the data. It was agreed that for the next set of calculations, total disability-adjusted life years (DALYs) per capita, the proportion of deliveries in the presence of skilled birth attendance and population density should be excluded from the set of indicators used.
8. The Working Group requested the Secretariat to run different calculations using the best available indicators and the data as agreed, with different population scaling. The Working Group met on 21 May 2015 at the margin of the World Health Assembly and reviewed the different options provided by the Secretariat (Appendix 2).
9. The Working Group recommended the Model C (ALP\_min) as a scientific evidence base taking into account different needs and concerns of different regions.
10. The Working Group recognized the need for a gradual implementation towards the allocation of Model C to avoid any drastic reduction for any Region.
11. The Working Group recommended Director-General to implement the recommended Model, over a period of three biennia, in consultation with the Regional Directors, using the current allocation for technical cooperation at country level as the starting point.
12. The Working Group recognized the need for regular monitoring and reporting of the implementation of the new Model of the Strategic Budget Space Allocation through the Programme, Budget and Administration Committee.
13. The Working Group recognized that the country needs may change over the time, and consequently would impact the estimated regional envelopes based on the Model, therefore recommended the Model to be reviewed periodically at least every six years.

#### **ACTION BY THE EXECUTIVE BOARD**

14. The Executive Board is urged to consider the draft decision set out below, in line with the recommendations proposed in this document.

The Executive Board, having considered the report by the Working Group on the Strategic Budget Space Allocation,<sup>1</sup> decided the following:

- (1) to welcome the report of the Working Group on the Strategic Budget Space Allocation and express its appreciation to the members of the Working Group for their thoroughness in reviewing the previous work and for developing a revised model in an objective and timely manner;

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<sup>1</sup> Document EB137/6, Annex.

- (2) to endorse the proposed model recommended by the Working Group on the Strategic Budget Space Allocation;
- (3) to request the Director-General, with respect to the endorsed model:
  - (a) to implement the recommended model, over a period of three bienniums, in consultation with the Regional Directors, using the current allocation for technical cooperation at country level as the starting point;
  - (b) to report regularly on the implementation of the new model, in conjunction to implementation of the programme budget reports, to the Executive Board through its Programme Budget and Administration Committee;
  - (c) to conduct reviews at least every six years in order to assess the relevance of the model to country needs and its impact on the regional budget envelopes.

## Appendix 1

**THE REVISED TERMS OF REFERENCE OF THE WORKING GROUP  
FOR STRATEGIC BUDGET SPACE ALLOCATION****Background**

The 136th session of the Executive Board welcomed the report of the Working Group on the Strategic Budget Space Allocation and expressed its appreciation to the members of the Working Group for their diligence in developing a methodology in an objective and timely manner. It endorsed the guiding principles recommended by the Working Group and requested the Director-General to apply the recommendations of the Working Group with respect to operational segments 2 (provision of global and regional goods), 3 (management and administration) and 4 (response to emergency events, such as outbreak and crisis response in the preparation of programme budget 2016–2017).

The 136th session of the Executive Board requested that the Working Group on Strategic Budget Space Allocation further develop operational segment 1 (technical cooperation at country level) taking into consideration the issues raised during the 136th session of the Executive Board regarding the proposed methodology and the choice of appropriate indicators and availability of data. A report is to be made to the Executive Board at its 137th session in May 2015.

In order to fulfil this request, it was also decided to expand the membership of the Working Group on Strategic Budget Space Allocation to two Member States per region.

**Objective:**

To further develop operational segment 1 (technical cooperation at country level) taking into consideration the principles endorsed by the Executive Board, the issues raised during the 136th session of the Executive Board regarding the proposed methodology, and the technical work done in support of the recommendations of the Working Group.

**Expected outcome:**

Recommendation to the Executive Board on the strategic budget space allocation for operational segment 1 (technical cooperation at country level)

**Expected Deliverables:**

- Report on progress update to the Executive Board at its 137th session in May 2015.
- Report with recommendations to the Executive Board.

**Roles and Responsibilities:**

Members of the Working Group are expected to:

- Attend all meetings or, if necessary, designate an alternate
- Adhere to the guiding principles of the Strategic Budget Space Allocation endorsed at the 136th session of the Executive Board
- Maintain a focus on the scope and expected outcome
- Actively participate in the discussion including putting forward proposals for the consideration of Working Group members
- Represent their respective regions, while keeping in mind the overall goal is to find the most objective, transparent and equitable option, and also considering the challenges of other regions
- Provide progress updates and consult with the Member States of their respective regions on a regular basis
- Make decisions based on objective evidence and by consensus
- Choose a rapporteur that will be responsible for reporting to the Governing Bodies on the work of this group
- WHO Secretariat will:
  - Serve as Secretariat to the Working Group
  - Provide expert advice and technical support specifically on modelling, as required and upon request
  - Provide information and advice on planning and budgeting processes, as required and upon request

## APPENDIX 2

**REPORT TO THE WORKING GROUP ON STRATEGIC BUDGET SPACE ALLOCATION:  
NEW CALCULATIONS FOR SEGMENT 1****Introduction**

1. At its meeting of 8 and 9 April 2015, the Working Group made a number of suggestions to the Secretariat and their consultant on new models they would like them to run relating to Segment 1. The Working Group proposed that it would consider these results at a meeting on the fringes of the World Health Assembly in May 2015.

2. The previous models, based on the methods developed and approved by the World Health Assembly in 2006, had followed 6 steps and the Working Group suggested modifications to some of them. The original steps follow to facilitate explanation of the modifications.

- a. **Step 1:** identify the variables (indicators) to use to determine country needs, put them in per capita terms where appropriate, scale them from zero to one so that they can be compared in the same units, and take an arithmetic mean to get a composite score.
- b. **Step 2:** estimate the model of per capita country needs based on this composite score.
- c. **Step 3:** classify countries into groups so that the least needy countries would receive no allocation. In the work prepared by the secretariat previously for consideration by the Working Group, this was done in terms of need deciles (10 percent of countries). The two least needy deciles (or the least needy 20% of countries) would receive zero allocation for segment 1. Decile 8 would receive a per capita allocation of 1; each subsequent decile would receive a higher weighted need because of their greater estimated need. The first decile of countries, the most needy, would receive just over 6 times more per capita than those in decile 8. This weighting was taken from the 2006 model. Each country within a specific decile would receive the same per capita allocation as in 2006.
- d. **Step 4:** Decide on a method to scale up the estimated per capita needs to the size of the population. Following the 2006 approach, three methods were prepared by the secretariat and discussed by the Working Group, all of which assume some degree of economies of scale i.e. per capita needs for funding falls as population rises:
  - i **Square root of population** – closer to actual distribution of the population, compresses population the least so gives relatively higher allocations to large countries compared to small countries;
  - ii **Log of population** – more compression than the square root so gives relatively higher allocations to countries with smaller than larger populations;
  - iii **Adjusted log population squared (ALPS)** – a compromise between log of pop and square root.

- e. **Step 5:** Estimate notional country proportion of the total allocations – multiply the per capita needs index for each country by the population scaling factor and divide by the sum of all country population adjusted needs. This gives each country’s share.
  - f. **Step 6:** Estimate regional proportions of the total allocations – the sum of each country’s population adjusted share in the region gives the regional share of the total allocation.
3. The modifications requested by the Working Group are outlined here in order of the above steps:
- a. **Indicators of need:** Omit total disability-adjusted life years (DALYs) per capita, the proportion of deliveries in the presence of skilled birth attendants and population density. Use the following indicators and domains:
    - **Health Status**
      - Life Expectancy
      - Under 5 mortality
      - Noncommunicable diseases (several indicators to be explored including prevalence of tobacco use, premature death due to NCDs)
    - **Economic Variables**
      - GNI per capita in Purchasing Power Parities (PPP)
      - Poverty headcount ratio at \$ 1.25 a day as percentage of the population
    - **Access**
      - Health workforce density
      - Political instability (several indicators to be explored including indicators used by the World Bank)
      - DTP3 coverage
  - b. **Change the method of scaling indicators from 0 to 1.** Rather than using the method of 2006, adopt the method used by UNDP in the Human Development Report.
  - c. **Omit the first part of step 3** – the Working Group recommended not to divide countries into deciles and apply the same needs to all countries in each decile. It also decided not to use a separate need’s index but instead to use the actual composite score (the average of the eight indicators). The Working Group recommended, however, to still cut off the lowest need 20% of countries or use another way to assign 0 (“no need”) to best performing countries.
  - d. **Explore and compare various population scaling factors** for their impact on the final allocation, including the three used to date as well as those used by institutions such as African Development Bank and UN Economic and Social Council.

## Missingness

4. Table 1 shows the degree of missingness for each of the variables recommended by the Working Group.

5. The main issue is with the poverty indicator where 53.6% of countries do not have data from the most recent years (after 2010). If we relax the requirement that data is recent and take any data point from 2000, the missingness is still 28.9%.

6. For all indicators, except poverty, we simply used the average of the countries in the region for which data were available to impute missing values.

7. For poverty, this approach would lead to counterintuitive results due to extremely diverse levels of economic development among countries in the same region (for example, Switzerland and Tajikistan in EURO, United Arab Emirates and Afghanistan in EMRO etc). We therefore chose to impute using the average for countries at the different income levels as denoted by the World Bank in its current classification – high income, upper middle income, lower middle income, low income.

**Table 1: Missingness, timeliness and source of data**

Domain	Indicator	% missing	Year	Source
<b>Health</b>				
	Life Expectancy	0	2012	GHO
	Under-5 mortality rate (per 1,000 live births)	1.6	2013	WDI
	Infant mortality rate (per 1,000 live births)	1.6	2013	WDI
	Current smoking of any tobacco product (% of population)	29.9	2011	GHO
	Age-standardized mortality rate due to NCDs (per 100 000 population)	11.9	2012	GHO
<b>Economic</b>				
	GNI per capita PPP\$	7.2	Latest available between 2010-2013	WDI
	Poverty headcount ratio at \$1.25 a day (PPP) (% of population)	53.6	Latest available between 2010-2013	WDI
	<b>Poverty headcount ratio at \$1.25 a day (PPP) (% of population)</b>	<b>28.9</b>	<b>Latest available between 2000-2014</b>	<b>WDI</b>
<b>Access</b>				
	DTP3	0.0	2013	GHO
	Combined Physicians-Nurses/Midwives per 1 000 population	3.6	Latest available between 2010-2013	WDI
	Political Stability and Absence of Violence/Terrorism (Government Effectiveness)	1.0	2013	WGI

Acronyms: GHO = WHO's Global Health Observatory; WDI is World Bank's World Development Indicators; WGI is World Bank's Worldwide Governance Indicators.

## Population Scaling

8. We estimated all models using the three population scaling methods described above, and added two more.
9. The first is used by the Asian Development Bank (population size to the power of 0.6 – the square root used above raises population size to the power of 0.5) so the ADB approach compresses population less than the original three options: log(pop), sqrt(pop), and ALPS.
10. The second was suggested by Australia in their comments on the previous methods. They suggested that even small countries need some sort of WHO presence either in country or in a sub-regional office, so a minimum allocation per country regardless of how small they are is warranted. Having reviewed other existing approaches to this issue, Australia had also suggested using the WB definition of small states, defined as countries with a population of 1.5 million or less. The value of ALPS for a population of 1.5 million (e.g. Gabon) is 0.47, so this factor was applied to all countries with a population of less than 1.5 million as well.

## Results with the variables and methods suggested by the Working Group

11. Table 2 shows Model A which includes all the indicators suggested by the Working Group but using the percentage of adult smokers as the indicator of NCD need. In this model, the 20% of countries with the lowest need are not given any allocation. Most of the regional allocations are a long way from current allocations, particularly for AFR and EUR.

**Table 2: Model A**

Region	Log(pop)	SQRT	ALPS	ADB	ALPS_min
AFR	39.0	34.0	36.6	31.6	35.4
AMR	13.3	11.6	12.6	10.9	12.9
EMR	14.5	14.7	13.9	14.4	13.3
EUR	14.5	12.1	13.6	11.1	13.1
SEAR	9.6	16.2	12.5	19.2	12.1
WPR	9.1	11.3	10.9	12.8	13.2

(Indicators: life expectancy, under-5 mortality, adult smoking rate, GNI per capita PPP, Poverty head count < 1.25\$, DTP3, health worker density, political stability)

12. In Table 3, Model B replicates Model A, but using age standardised mortality due to NCDs instead of smoking. AFR would receive a larger allocation and EUR less, but AFRO still receives less than 40% with all but one of the population scaling methods.

**Table 3: Model B**

Region	Log(pop)	SQRT	ALPS	ADB	ALPS_min
AFR	41.3	36.2	38.8	33.6	37.6
AMR	13.2	11.3	12.5	10.6	13.1
EMR	15.2	15.5	14.6	15.1	14.0
EUR	12.4	10.2	11.6	9.4	11.0
SEAR	9.5	16.4	12.5	19.5	12.1
WPR	8.3	10.4	10.0	11.9	12.1

(Indicators: life expectancy, under-5 mortality, age standardised NCD mortality rate, GNI per capita PPP, Poverty head count < 1.25\$, DTP3, health worker density, political stability)<sup>1</sup>

13. We then adapted Model B to incorporate something that China had suggested in its comments on the previous model. Model C (Table 4) slightly changes the way the country needs allocations are made. Instead of assigning zero to the best performing 20% of countries based on the composite score, China had suggested the following: for each of the indicators, a country receives zero on that indicator if it performed at the same level or above the OECD median. For example, the OECD median for life expectancy at birth is 81 years. Thus, those countries where life expectancy is 81 years or higher would get zero for this indicator in the composite score.

14. Countries could get a zero score on one indicator but a positive score on others, zero on all of them, or positive on all. The average of all indicators describes the countries overall need. Note that high income countries scoring above the OECD median on all indicators receive no budget allocation. All other steps, including scaling of variables based on the UNDP method, are as before.

15. Table 4 shows the allocations based on this model (model C). The last column is the results to the 2014–2015 planned budget allocations to allow a comparison.

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<sup>1</sup> Inclusion of the indicator “deliveries in the presence of skilled birth attendants (SBA)” made very little difference to the regional allocations of Models A and B.

**Table 4: Model C: Model based on zero need for indicators above the OECD median**

Region	Log(pop)	SQRT	ALPS	ADB	ALPS_min	Planned budget for 2014-2015
AFR	47.4	41.2	44.5	38.3	<b>43.4</b>	<b>42.3</b>
AMR	11.7	9.9	11.1	9.2	<b>11.3</b>	<b>8.4</b>
EMR	15.3	15.7	14.7	15.4	<b>14.2</b>	<b>14.3</b>
EUR	6.8	5.9	6.4	5.5	<b>6.4</b>	<b>4.5</b>
SEAR	10.9	18.7	14.5	22.3	<b>14.1</b>	<b>15.7</b>
WPR	7.8	8.6	8.8	9.3	<b>10.6</b>	<b>14.8</b>

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