

OPEN-ENDED WORKING GROUP OF MEMBER STATES ON PANDEMIC INFLUENZA PREPAREDNESS: SHARING OF INFLUENZA VIRUSES AND ACCESS TO VACCINES AND OTHER BENEFITS
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Pandemic influenza preparedness: options for sustainable financing of benefit sharing

PANDEMIC INFLUENZA PREPAREDNESS: OPTIONS FOR SUSTAINABLE FINANCING OF BENEFIT SHARING

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PANDEMIC INFLUENZA PREPAREDNESS: OPTIONS FOR SUSTAINABLE FINANCING OF BENEFIT SHARING

I. INTRODUCTION

The Open-Ended Working Group of Member States on Pandemic Influenza Preparedness: sharing of influenza viruses and access to vaccines and other benefits, requested the Director-General of WHO to provide a realistic assessment of needs for pandemic influenza preparedness and response, and possible sources/mechanisms of financing, including existing sources/mechanisms, for each set of needs. This paper provides that assessment for the consideration of Member States.

II. PROPOSED PANDEMIC INFLUENZA PREPAREDNESS BENEFIT PACKAGE

The objective of the pandemic influenza preparedness benefit package set out below is to increase global pandemic influenza preparedness and response. This objective is addressed through two equally important and mutually supportive pathways. One will focus on ensuring available funds to meet the needs of countries without access to pandemic vaccines and antiviral medicines. The other will focus on increasing laboratory and surveillance capacity in several regions and countries and expanding global influenza vaccine manufacturing capacity. Addressing both areas at the same time, although through different strategies, is essential if progress is to be achieved in global pandemic preparedness and capacity to respond to a pandemic event.

This paper proposes to establish a multilateral funding mechanism with predictable financial input to ensure that, when needed, funds are available for ensuring access to vaccines and other pandemic supplies. This mechanism will also support specific laboratory and surveillance capacity-building, and vaccine manufacturing expansion activities, that are critical to global preparedness, and that are feasible over the next five years. The latter, which are presented in Tables 1A and 1B below, are drawn from the targets and options found in the *Preliminary findings for the technical studies under resolution WHA63.1* of 10 December 2010.³

III. COSTS OF THE PROPOSED PANDEMIC INFLUENZA BENEFIT PACKAGE

The selected benefits and their estimated costs are additional to Member State investments that are already ongoing (Tables 1A and 1B). The benefits would support ongoing work to comply with national core capacity obligations under the International Health Regulations (2005),⁴ and take into

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¹ Document A/PIP/OEWG/2, available at: http://apps.who.int/gb/pip/pdf_files/OEWG2/A_PIP_OEWG_2-en.pdf (accessed 2 March 2011).

² See document A/PIP/OEWG/2, paragraph 6(h). A full set of technical needs and financing options have been identified and discussed in detail in the document entitled "Technical Studies under Resolution 63.1".

³ Available at: http://apps.who.int/gb/pip/pdf_files/OEWG2/PIP_OEWG_Preliminary-findings-en.pdf (accessed 2 March 2011).

⁴ International Health Regulations (2005), Annex 1.

account existing aid flows to countries and to WHO. This paper is limited to addressing specific gaps directly related to pandemic influenza preparedness for, and access during, a pandemic. The paper proposes specific financing mechanisms to cover some of the estimated costs. Otherwise, the paper assumes that current support (national government, donor and/or other) for existing activities related to influenza and pandemic preparedness will continue at the same or increased levels over the next five years. The latter support will be needed to ensure that results are fully achieved.

As underscored in the analysis, the costs to fully implement the selected benefits will require dedicated and predictable financial support, particularly to ensure access to pandemic supplies at the time of a pandemic. Certain activities – notably to increase vaccine production capacity and country support for laboratory and surveillance – will require investments over and above what the suggested pandemic influenza preparedness (PIP) Endowment would cover. Therefore, additional resources (financial, human and material) will be needed from host governments and industry as reflected in Table 2.

Table 1A: Description and initial five-year costs of selected pandemic influenza preparedness activities

| Benefit | Beneficiaries | Specific activities | Average unit cost (US\$) | Five- year cost (US\$ million) |
|---|---|--|-----------------------------|--|
| 1. Laboratory as | nd surveillance capa | city building | | |
| Disease-based surveillance (includes | 52 countries | Training support for selected staff; Basic equipment; | 292 000/ country/year | 76 |
| indicator- and event-based surveillance) | | Basic information technology and reporting systems | | |
| Laboratory strengthening and virus sample shipping | 75 countries supported (including new National Influenza Centres in 43 countries) | Training support for selected staff, equipment, reagents, limited operational support; Same facilities supported by national governments; Expansion of virus shipping capacity for small countries | 190 000/country/year | 71 |

| Benefit | Beneficiaries | Specific activities | Average unit cost (US\$) | Five- year cost (US\$ million) |
|---|--|---|--|--|
| Establish new WHO Collaborating Centres for Influenza in 3 regions that currently lack them | Global | Support for development of WHO Collaborating Centres for Influenza in regions that do not currently have one | 3 million/ Collaborating Centre/year | 45 |
| | | | Subtotal | 192 |
| 2. Expanding gl | obal influenza vacci | ine production capacity | | |
| Increase demand for seasonal influenza vaccine through disease burden studies | 18 countries | Support for 18 seasonal influenza burden of disease studies | 5 million/study | 90 |
| Build and/or expand capacity in countries that have government support and/or | 11 countries ^a | Complete support for existing GAP projects in 11 countries (does not include host country investments) | 2.72 million/project | 30 |
| business case to sustain production (technology transfer) | 4 countries | Grants to 4 new grantees for technology transfer projects | 5 million/new project | 20 |
| Stimulate the capacity to convert IIV ^b production to LAIV ^c production | Pilot in 5 low-/middle-income countries | Feasibility pilots: equipment, technical support to existing IIV vaccine producers to establish capabilities to convert to LAIV technology; production of LAIV seed strains | 1.6 million/pilot country | 8 |
| Expand the use of potent adjuvant technology (through transfer of technology) | 24 manufacturers in & serving developing country populations | Training on adjuvant technology to produce adjuvants (does not include purchase of equipment of building of adjuvant production facilities) | 1 million/manufacturer | 24 |
| | | | Subtotal | 172 |

| Benefit 3. Access, affor | Beneficiaries dability and effective | Specific activities e deployment: pandemic | Average unit cost (US\$) | Five- year cost (US\$ million) | |
|---------------------------|---|--|--------------------------|--|--|
| Antiviral medicines | Coverage for 9 million people in countries without access | Establish and maintain stockpile of 18 million treatment courses (including replenishment as needed) of 2 different antiviral medicines needed to allow for possible drug resistance in pandemic virus | 11.1/person | 67 | |
| Vaccine | Pandemic vaccine for 138 million people | IF REQUIRED: Reserve fee for 276 million doses of pandemic vaccine (2 doses per person) | 0.5/dose/year | 690 | |
| Subtotal | | | | | |
| | | | Total table 1A | 1121 | |

^a Brazil, Egypt, Republic of Korea, India, Indonesia, Islamic Republic of Iran, Mexico, Romania, Serbia, Thailand, Viet Nam.

Table 1B: Description of selected pandemic influenza preparedness benefits: pandemic surge costs

| Benefit | Beneficiaries | Specific activities | Average unit cost (US\$) | Pandemic surge cost (US\$ million) | | |
|---|---------------------------------------|--|--------------------------|--|--|--|
| 1. Laboratory and survei | llance capacity build | ling | | | | |
| Laboratory and surveillance capacity during a pandemic (surge) | 105 low- and middle- income countries | Support for surge in laboratory and surveillance costs | | 229 | | |
| | 229 | | | | | |
| 2. Expanding global influenza vaccine production capacity | | | | | | |
| No anticipated pandemic surge costs | | | | 0 | | |

^b IIV: inactivated influenza vaccine.

^cLAIV: live attenuated influenza vaccine.

| 3. Access, affordability a | 3. Access, affordability and effective deployment: pandemic vaccine and antiviral medicines | | | | | | | |
|---|---|--|-------------------------------------|------|--|--|--|--|
| Vaccine purchase and deployment of pandemic vaccine (2 doses/person) for countries without access for health-care workers, essential personnel and pregnant women | 138 million people | Purchase and deploy 276 million doses of vaccine to cover 5.5% of population of countries without access | \$4.2/dose (\$8.4 per person) | 1159 | | | | |
| Antiviral medicines | Coverage for 66 million people (2.25% of population of countries without access) | Purchase/in-kind value of 66 million treatment courses (1 antiviral medicine) | \$7/person | 462 | | | | |
| | 1621 | | | | | | | |
| | 1850 | | | | | | | |
| | | Total Tables | s 1A and 1B | 2971 | | | | |

 Table 2:
 Benefits, costs, potential funding sources, and other required investments

| (A) Benefit | (B) Five-year cost (US\$ million) | (C) Potential funding sources for (B) | (D) Resources additional to (B) and (C) required to achieve results in (A) | | | | | | |
|---|-----------------------------------|---------------------------------------|---|--|--|--|--|--|--|
| Laboratory and surveillance capacity building | | | | | | | | | |
| Disease-based surveillance (includes indicator- and event- based surveillance) | 76 | PIP Endowment | Country investments in International Health Regulations capacity development | | | | | | |
| Laboratory strengthening and virus sample shipping | 71 | PIP Endowment | Host country support or bilateral donor contributions for laboratory infrastructure support for the WHO Global Influenza Surveillance Network | | | | | | |
| Establish new WHO Collaborating Centres | 45 | PIP Endowment | Host country funding for Collaborating Centre operation | | | | | | |
| Expanding global influenza | a vaccine production capacit | ty | | | | | | | |
| Increase demand for seasonal influenza vaccine through disease burden studies | 90 | PIP Endowment | Country and industry investment: US\$ 3.7 billion per year to purchase/administer 450 million doses of seasonal influenza in low- and middle-income countries | | | | | | |

| Build and/or expand capacity in countries that have government support and/or business case to sustain production (technology transfer) | 50 | PIP Endowment | Industry/host country/donors contribute 9-10 times value of Global Action Plan to Increase Supply of Pandemic Influenza Vaccines (GAP) Grants Additional donor support to countries/ manufacturers for vaccine production facilities |
|---|----------------------------|--|--|
| Stimulate IIV to LAIV convertible capacity | 8 | PIP Endowment | Industry investments to convert IIV to LAIV (unknown at this time) |
| Expand the use of potent adjuvant technology | 24 | PIP Endowment | Industry investments to produce adjuvants (US\$ 325 million for 24 manufacturers) |
| Access, affordability and e | ffective deployment: pande | mic vaccine and antiviral me | dicines |
| Antiviral medicines | 67 | PIP Endowment Industry | This takes into account the existing stockpile of 5.64 million treatment courses of oseltamivir |
| Vaccine pre-purchase | 690 | IF REQUIRED: | |
| agreement annual | | Industry contribution | |
| reservation fee | | High income country government pre-purchase agreement holders Other donors | |
| Dandamia manana | | Other dollors | |
| Pandemic response | 220 | DID E. 1 | A 1122 11 4 |
| Laboratory and surveillance capacity | 229 | PIP Endowment | Additional host country investments in their |
| during a pandemic | | Direct donor flows | surveillance and |
| (surge) | | Host country | laboratory systems |
| Vaccine purchase and deployment of pandemic vaccine (2 doses/person) for countries without access for health-care workers, essential personnel and pregnant women | 1159 | PIP Endowment Host country Country access to International Monetary Fund Special Drawing Rights and/or World Bank Direct donor flows Manufacturers | WHO pre-purchase agreements on behalf of countries without access Industry commitment to reserve percentage for countries without access |
| Antivirals | 462 | PIP Endowment | |
| | | Host country | |
| | | Direct donor flows | |
| | | Manufacturers | |

Description of costs

Several considerations influence the cost estimates including (1) the number of countries or other beneficiaries directly receiving benefits; (2) the fact that the time period for implementation of certain benefits will differ; (3) differences in the need for one-time versus recurrent annual costs; (4) the effect of a pandemic on real-time funding needs; and (5) the implementation of additional "enabling factors" including:

- **Differential pricing strategies.** Industry commitment and use of tiered or other pricing strategies to ensure the affordability of pandemic supplies to countries in need.
- **International Health Regulations capacity investments.** Country investments to achieve IHR core capacity requirements and related health system strengthening.
- **Member State and industry commitments** to principles of access to pandemic vaccines, evidenced through new or expanded pandemic influenza vaccine pre-purchase agreements.
- **Agreement on intellectual property** issues where applicable.
- Capacity of WHO and other international agencies to continue to provide technical support and guidance to implement the necessary improvements in laboratory and surveillance and specific support for vaccine manufacturing expansion.

Pre-pandemic preparedness (capacity building and production expansion activities)

For certain activities, notably expanding vaccine production capacity, the costs identified in Table 1A would only launch the activity or provide funds to carry out pilot or feasibility studies. As shown in Table 2, significant additional investments would be required from the host government and/or industry to fully implement them.

The costs of strengthening laboratory and surveillance capacity included in Table 1A were estimated using average costs for building new, or strengthening and maintaining existing capacity, derived from WHO surveys of a sample of Member States with such laboratory and surveillance systems. The estimated costs assume continued government support at the same levels as today for existing surveillance systems and laboratories in the WHO Global Influenza Surveillance Network (GISN) and support for WHO's global coordination role.

The average costs of increasing influenza vaccine manufacturing capacity cover only the investment that would start the process of building new, or expanding existing capacity, as well as assessing the feasibility of new technology. Significant additional funds will be required to fully implement any vaccine manufacturing development or expansion plans.

Once laboratory, surveillance, and vaccine manufacturing capacities increase, the extra investment needed for access to vaccines and medicines during a pandemic should decline. It is difficult to quantify how short- to medium-term investments will affect future funding needs, and therefore a regular process to reassess needs would be advisable.

Pandemic event

The timing of the next pandemic is unknown. But when it occurs, significant increased funding will be required to meet elevated response activities, including purchase and deployment of pandemic vaccines and antiviral medicines. At that time, funding will be needed urgently to ensure vaccination coverage for 138 million people (5.5% of population, health personnel, key personnel and pregnant women, of countries without access). Additional funds will allow for greater coverage.

Before a pandemic starts, having certain agreements and mechanisms in place would be optimal including:

- Negotiated and signed pre-purchase agreements with industry and governments to reserve a percentage (e.g. 10%) of production capacity to benefit countries without access. Such agreements could be arranged through WHO (or another United Nations organization), by government pre-purchase agreement holders, and/or through industry commitments;
- Pre-negotiated agreements between vaccine manufacturers and WHO or governments for access to funds to purchase vaccines/antiviral medicines;
- Mechanisms to accept in-kind donations, (e.g., WHO's antiviral medicines stockpile mechanisms; vaccines donation agreements).

IV. FINANCING MECHANISM OPTIONS

Feasible sources and mechanisms to finance the key benefits are (a) a PIP Endowment or some other multilateral mechanism to hold and disburse funds; (b) continued Member State support to WHO for activities directly related to the PIP benefit package; (c) Member State self-financing to support their public health activities (notably public health laboratories and vaccine manufacturing capacity, if any); and (d) industry support. This could be supplemented with bilateral mechanisms. Most benefits will require funding from more than one mechanism and revenue source.

Possible role for a PIP Endowment

The proposed focus of a PIP Endowment would be to support new rather than existing activities. For example, the activities in Table 1A could be funded in whole or in part by a PIP Endowment. Estimated costs for inter-pandemic preparedness activities total **US\$ 86.2 million per year** over the next five years (Table 3). These funds would largely support the one-time and/or recurrent costs.

In the event of a **pandemic**, a PIP Endowment could support access to vaccines and antiviral medicines for countries without access. For example, implementing pre-purchase agreements to purchase 276 million doses of pandemic vaccine would immunize 138 million people (2 doses of vaccine covering approximately 5.5% of population of these countries). This would cost an estimated **US\$ 1159 million in the early months of a pandemic.** Ensuring availability of antiviral medicines for 66 million people in low- and lower-middle income countries would require approximately **US\$ 462 million**. The anticipated surge in demands on laboratory and surveillance systems would cost an estimated **US\$ 229 million** to cover 105 low- and middle- income countries (although this figure may decline with increasing capacity). In total, **US\$ 1 850 million to fund such activities would** be needed during a pandemic event. These figures do not cover additional activities.

In addition to funds made available by a multilateral PIP Endowment, countries could access bilateral funding through the International Monetary Fund Special Drawing Rights, similar pre-arranged International Monetary Fund support mechanisms, and World Bank programmes (see Annex) at the time of a pandemic event.

Table 3: Summary of costs (derived from Table 2), US\$ million

| Activity | Five-year total need | Annual need |
|---|----------------------|-------------|
| A. Inter-pandemic | | |
| Laboratory and surveillance | 192 | 38.4 |
| Vaccine manufacturing capacity | 172 | 34.4 |
| Access: Antiviral medicines stockpile | 67 | 13.4 |
| Total | 431 | 86.2 |
| | | |
| B. Pandemic event | | |
| | Need | |
| Laboratory and surveillance surge | 229 | |
| Vaccine purchase and deployment (including possible donation value) | 1159 | |
| Antiviral medicine (purchase or in-kind value) | 462 | |
| Total | 1850 | |

PIP Endowment

A PIP Endowment would constitute a **sustainable and predictable multilateral** mechanism for pooling resources from multiple sources with two purposes:

- (1) Support a long-term reserve available for immediate funding of access to pandemic vaccines and other pandemic supplies for countries without access when a pandemic starts;
- (2) Support start-up and recurrent costs associated with building new pandemic preparedness capacity (laboratory, surveillance and some vaccine manufacturing).

In order to accomplish these two goals, the PIP Endowment would need to receive annual, predictable funding from two principal sources: industry and governments. These funds could then be apportioned to support both purposes stated above.

As shown in Table 3 above:

- US\$ 1850 million would be needed in the early weeks/months of a pandemic to ensure access to vaccine and antiviral medicines by countries without access, and to assist countries in need with the surge in laboratory and surveillance activities.
- US\$ 86.2 million each year is needed over the next five years to undertake the preparedness activities set out in Table 1A above.

Assuming that a pandemic will not occur in the next 10 years, the PIP Endowment could reach these targets with a predictable, annual contribution of **US\$ 200 million**. With this annual amount, and using a conservative investment policy, the two funding levels above could be reached in year 11 (see Table 4 below). Thereafter, assuming a pandemic does not occur, increased funding could be used to raise the level of access (beyond 5.5%). A target of 13.5% would allow coverage of populations at risk, in addition to health personnel, key personnel and pregnant women. If the annual investment is higher, the target for access will be reached earlier.

1. Potential funding sources and mechanisms for a PIP Endowment

Industry

a. "Subscription fee" to the Global Influenza Surveillance Network: Subscribers would include influenza vaccine manufacturers and other companies. A subscription fee would be paid by them on the basis of an agreed formula. For instance, it could be based on manufacturers' annual sales revenue from influenza vaccine or other pandemic-related products (e.g. antiviral medicines, syringes, etc.) or some other basis. In return for the fee, subscribers would receive the same range of GISN "products" including risk assessment, surveillance information, candidate vaccine viruses, reference viruses, etc, that they already receive.

Using the example above, the following sums could be generated (using 2009 influenza vaccine sales data) from influenza vaccine manufacturers:

• 1% of sales: US\$ 45-50 million/year 1,2

• 2% of sales: US\$ 90-100 million/year

• 3% of sales: US\$ 135–150 million/year

b. In-kind contributions. Industry could also contribute to the PIP Endowment through in-kind contributions. Examples of in-kind contributions could include: (a) vaccines,³ antiviral medicines, syringes, and personal protective equipment, among others; (b) commitment to set aside 10% of real-time production for developing countries (any value) and/or; (c) value of WHO brokered pre-purchase agreement for developing countries without access on a "no reserve fee" basis. During the pandemic (H1N1) 2009, influenza vaccine manufacturers donated 36.37 million doses of pandemic (H1N1) vaccine to WHO.

¹ A similar benefits sharing system was established by the International Treaty on Plant and Genetic Resources for Food and Agriculture whereby a recipient must pay 1.1% of the sales of the commercialized products in accordance with the other conditions required in Annex 2 of the Standard Material Transfer Agreement. Approximately 75% of the revenue is derived from contracting parties, with the remainder coming from foundations, the private sector, individuals and states. See GINC/INT/031/MUL, IT-PGRFA (Benefit-sharing). In 2009, Italy, Norway, Spain and Switzerland provided early financial leadership. The five year goal is for a capitalized fund of US\$ 116 million.

² This approximation is based on 1% of combined company influenza vaccine sales in 2009. Increases in the percentage applied would yield greater amounts, particularly if non-pandemic year seasonal sales levels (that are lower than a pandemic year) are taken into account.

³ During 2009, companies producing pandemic (H1N1) vaccine, as well as governments, donated pandemic vaccines. The total of donated doses of vaccine delivered to WHO was 78.65 million doses.

Governments

- **a.** Suggested financial contributions. Using a formula to be agreed upon, the level of such contributions could be established to match industry contributions. This target could be further adjusted (Note: between 2006 and December 2009, bilateral donors committed US\$ 2600 million to preparedness and response programmes for avian influenza and pandemic (H1N1) 2009, of which US\$ 2250 million was disbursed).
- **b.** In-kind contributions. Governments with existing pre-purchase agreements could expand their agreements to include a reserve of a pre-defined amount of pandemic vaccine allocated to WHO for countries without access. During the pandemic (H1N1) 2009, governments donated 42.28 million doses of pandemic (H1N1) vaccine to WHO.

Foundations, other donors

Foundations and other stakeholders could also donate funds to the PIP Endowment through mechanisms such as matching fund challenges or other types of pledge drives for pandemic influenza preparedness. This would regularly remind the global community of the ongoing threat of pandemic influenza and encourage continued global solidarity to prepare for a global response to a global risk.

2. PIP Endowment: possible use of funds

There are many possible uses of PIP Endowment funds including:

- Building a strategic fund reserve to ensure funds are available in the early weeks/months of a pandemic to pay for pandemic supplies (vaccines, antiviral medicines, etc) for countries without access in case of a pandemic;
- Paying for one-time and recurrent costs for pandemic preparedness capacity-building activities including:
 - New laboratory and surveillance capacity;
 - Activities to increase influenza vaccine manufacturing capacity (adjuvant technology transfer and training); and
 - Management and maintenance of a stockpile of antiviral medicines;
- Payment of interest owed to the International Monetary Fund by low-income countries who use the Fund's special drawing rights mechanism to purchase pandemic vaccines (see Annex).

3. PIP Endowment: investment and growth model

Table 4 below illustrates the financial impact of varying levels of annual contributions assuming a modest long-term return rate of 5% per annum and adjusting for a 2% per annum inflation (discount

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¹ Donors contribute sustainably on an annual basis to UNITAID (multi-year government pledges are made with annual national Parliament/Treasury appropriations); to the Global Fund to Fight AIDS, Tuberculosis and Malaria; and to the GAVI Alliance.

rate). The shaded area of Table 4 shows that, with an annual contribution of US\$ 200 million, it would take just over 11 years to reach the target of US\$ 1850 million to meet pandemic access and surge costs (while ensuring availability of US\$ 86.2 million to cover start-up and annual recurrent costs for preparedness capacity building and expansion activities in the first five years, and reducing to 45% of this amount annually from year 6 onwards). The time required to meet the access fund target can be reduced to eight years with annual contributions of US\$ 300 million each year. Beyond these points, additional funds could be used to increase the quantity of pandemic vaccine accessed and/or to support other pandemic preparedness activities.

Table 4: Investment fund value (US\$ million)

| | | | Numb | Number of years from start of endowment | | | | | | | | | | |
|----------------------------|---------------------------|------------------------------|--------|---|----------|---------------------------|------|------|------|------|------|------|------|------|
| | | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| Total annual contributions | Annual costs ^a | Annual investment for access | Invest | ment fu | nd value | \mathbf{e}_{p} | | | | | | | | |
| 100 | 86.2 | 13.8 | 14 | 28 | 43 | 58 | 73 | 137 | 202 | 269 | 339 | 410 | 483 | 559 |
| 150 | 86.2 | 63.8 | 64 | 130 | 197 | 267 | 339 | 460 | 585 | 714 | 846 | 983 | 1124 | 1269 |
| 175 | 86.2 | 88.8 | 89 | 180 | 274 | 372 | 471 | 622 | 777 | 936 | 1100 | 1270 | 1444 | 1624 |
| 200 | 86.2 | 113.8 | 114 | 231 | 352 | 476 | 604 | 784 | 968 | 1158 | 1354 | 1556 | 1764 | 1978 |
| 225 | 86.2 | 138.8 | 139 | 282 | 429 | 581 | 737 | 945 | 1160 | 1381 | 1608 | 1843 | 2084 | 2333 |
| 250 | 86.2 | 163.8 | 164 | 333 | 506 | 685 | 870 | 1107 | 1351 | 1603 | 1862 | 2129 | 2405 | 2688 |
| 275 | 86.2 | 188.8 | 189 | 383 | 584 | 790 | 1002 | 1269 | 1543 | 1825 | 2116 | 2416 | 2725 | 3043 |
| 300 | 86.2 | 213.8 | 214 | 434 | 661 | 894 | 1135 | 1430 | 1734 | 2048 | 2370 | 2703 | 3045 | 3398 |

a: Note: interest only added on the previous end of year balance.

4. PIP Endowment structure and governance features

A governance structure with the following characteristics would be needed for a PIP Endowment:

- A transparent and fair mechanism or criteria for prioritizing use of funds;
- Ability to rapidly receive and disburse large influxes of funds for purchase of pandemic vaccines, antiviral medicines and other pandemic supplies for countries without access;
- Governance, management and administration designed to facilitate rapid, efficient and flexible use of funds
 - The World Health Assembly and other WHO expert committees or groups (such as the Advisory Group) could play important roles, both technical and advisory;
 - Selection of a trustee to manage funds, particularly long-term investments to be guided by Member States;
- Expertise in pandemic preparedness and response;
- Ability to ensure coordination of funding streams and technical support to countries;
- A mechanism for regular auditing, monitoring, evaluation, and reporting.

b: From year 6, annual PIP costs reduce to 45%.

ANNEX

Potential bilateral funding mechanisms for access during a pandemic

International Monetary Fund-sourced funds: special drawing rights

The International Monetary Fund's special drawing rights (SDR) mechanism (or one similar to it) could make funds available to countries in the event of a pandemic. Under this mechanism, countries are provided a quota of SDR units (equivalent to a blend of four currencies) that can be traded between countries. The system provides security for countries with low foreign exchange reserves. In view of the global recession, in 2009 the IMF exceptionally increased its allocation of SDRs to 204 billion (equivalent to US\$ 308 billion), which were available to all countries. In the event of an emergency, countries can seek to exchange their SDR credits for hard currency, thereby enabling an infusion of cash to purchase vaccines or support social or economic responses. The IMF can also intervene through a designated mechanism to link the countries seeking financing with those holding credits. The IMF does not screen potential uses of the funds – this is the recipient country's prerogative. Once a country has cashed in some of its SDR quota, it must pay interest (based on IMF rates) to the country that has increased its holdings of SDRs. In addition to the SDR programme, the IMF has other mechanisms to provide emergency funding to countries. These rely on established terms for repayment by countries to the IMF.

Multilateral banks' existing pre-arranged loans and grant programmes

The existing (and any new) commitments of the multilateral development banks could be realigned to support pre-arranged loans and grants to countries and multilateral agencies during a pandemic situation. To date, the World Bank has managed its Global Program for Avian Influenza Control and Human Pandemic Preparedness and Response loan-based portfolios to support countries (US\$ 898 million in loans; 19% disbursed). 1

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¹ Animal and pandemic influenza, a framework for sustaining momentum, Fifth Global Progress Report, July 2010, United Nations System Influenza Coordination and the World Bank, p.32. Available at http://www.un-influenza.org/node/4231 (accessed 2 March 2011).