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# Sweden's Development Assistance for Health — Policy Options to Support the Global Health 2035 Goals

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*till*
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# Preface

In December 2013, a report on the prospects for global health over the next 20 years was published in the Lancet. The optimistic message was that a ”grand convergence” in health is achievable until 2035. There are ever-improving technical and financial possibilities to make dramatic progress and close the global health gap. Low- and lower middle income countries may in this time period reach the levels of today’s best-performing middle income countries. By reducing under-5-mortality to 16 per 1000 live births, reducing annual AIDS deaths to 8 per 100 000 and annual tuberculosis deaths to 4 per 100 000 population about 10 million deaths can be averted in 2035.

EBA invited a key group from the Lancet report team to more specifically study the Swedish development assistance to health. The idea was for these renowned researchers to take a closer look at what Sweden currently does in the field of development assistance to health and give advice on what Sweden should do over the next decades. Development assistance to health is an important area for Swedish international aid. 13 percent of the total aid budget is used for these purposes.

Most Swedish development assistance to health is directed towards a set of low- and lower middle income countries. Currently, many of these countries experience rapid economic growth. In this report, as well as in the Lancet report, estimations are done of how this economic growth may evolve over the coming decades. The authors point to the fact that as economies grow, higher shares of their budgets are spent on health. Hence, poor countries will increasingly be able to finance their own health needs as their economies grow.

There will still be roles to play for international aid. Some countries will remain fragile and poor, health systems will remain weak and sparsely diffused within some countries, poor people will continuously face illnesses that risk dragging them down into poverty. However, given that resources become increasingly available for health services also in poor countries – how could Swedish aid best be used to support the move towards the grand convergence? What will the strategic areas of intervention be?

As agreed from the outset, the analysis takes its starting point in the Lancet’s Global Health 2035 report. With analysis and conclusions from that report taken as given, the focus in the current report is on what Sweden does, what Sweden is good at, and how this may be

matched with the needs and challenges that the Global Health 2035 highlighted.

The discussion on how aid best should be used is a vast one, with many dimensions. This report neither covers that debate in full, nor provides final answers. For instance, the balance between aid given as direct support to needy populations in poor countries or to common causes at global level is discussed in this report. Arguments about cut-off lines and the importance of graduation out of aid are provided. This may hopefully inspire a much wider discussion on this balance between the uses of aid for local versus global interventions. Furthermore, there might be other assessments than those provided in this report on how much aid resources there will be available for health in the future. However, what this report provides is argued options for how Sweden could shape its development assistance to health over the next decades. It is our sincere hope that this will serve as a valuable input to an enlightened and engaging discussion on how Swedish development assistance could contribute to a grand convergence in global health by 2035.

The study has been conducted in dialogue with a reference group led by Professor Hans Rosling, and in the later stages by Ms. Julia Schalk, who both are member of the EBA expert group. The responsibility for the content of the report rests fully with the authors.

Stockholm, October 2014

Lars Heikensten

Chair

# Sammanfattning

I december 2013 publicerade Lancet-kommissionen för investeringar i hälsa *Global Health 2035: Converging within a Generation*. Rapporten beskrev möjligheterna för låg- och lägre medelinkomstländer att med stöd av biståndsgivare att nå dramatiska hälsoförbättringar till år 2035. Genom ökade investeringar i befintliga och nya hälsoinsatser, och i system för att tillhandahålla dem, kan merparten av låg- och lägre medelinkomstländer nå en ”storskalig konvergens” vad gäller global hälsa, där barnadödlighet och dödlighet i infektionssjukdomar når ned till nivåer som idag råder i de medelinkomstländer som har bäst hälsa. Finansieringen av dessa hälsoförbättringar kan ske genom en kombination av inhemska resurser, bistånd utifrån och genom förändrade prioriteringar i biståndet. Enligt rapporten kan också förekomsten av icke-smittsamma sjukdomar och skador minskas kraftigt genom finanspolitiska åtgärder (exempelvis skatter på tobak och läskedrycker) och införandet av en allmän hälso- och sjukvård.

Ett centralt tema i *Global Health 2035* är att det internationella hälsobiståndet behöver vidareutvecklas under de kommande 20 åren. Baserat på antagandet att deras ekonomiska tillväxt fortsätter kan några av dessa låginkomstländer, och flertalet de lägre medelinkomstländerna, efterhand finansiera allt mer av sin hälso- och sjukvård med egna medel. Därmed kan de i ökande grad klara sig utan hälsobistånd. Givet detta argumenterade rapporten för att världssamfundets samlade ansträngningar alltmer bör inrikta sig mot tre avgörande nyckelfunktioner för global hälsa: a) tillhandahålla globala gemensamma nyttigheter (som till exempel forskning och utveckling); b) hantera gränsöverskridande hälsoproblem (som till exempel förberedelser för nästa influensapandemi och att hantera antibiotika-resistens); c) tillhandahålla globalt ledarskap och vägledning.

En sådan global utveckling kan få stor betydelse för Sveriges hälsobistånd. Sverige kan till exempel använda en större andel av sitt hälsobistånd för de tre nyckelfunktionerna i global hälsa, exempelvis forskning eller hanterandet av antibiotikaresistens. Några av de länder som idag får hälsobistånd från Sverige kan på sikt kan klara av att finansiera en grundläggande hälso- och sjukvård utan bistånd. Gruppen av länder som Sverige ger hälsobistånd kan därför komma att ändras.

Mot denna bakgrund gav Expertgruppen för Biståndsanalys (EBA) en grupp forskare i uppdrag att studera det svenska hälsobiståndet och föreslå åtgärder som dels underlättar den storskaliga hälsokonvergensen och dels kan tjäna som exempel för andra biståndsorganisationer och givare.

Denna analys, med dess policy-förslag, är i första hand avsedd att stimulera diskussion och debatt, snarare än att utgöra en handlingsplan för Sverige. Analysen har landat i sju budskap.

## *Hälsobistånd bör klassificeras utifrån dess funktioner. På så vis blir hälsobiståndets roll tydligare för perioden efter 2015.*

Den föreliggande rapporten använder sig inte av de vanligaste sätten för att klassificera hälsobistånd (utifrån sjukdoms- eller ländergrupper), utan föreslår istället att hälsobiståndets funktioner bör vara vägledande. Tre typer av bistånd lyfts fram:

- Globalt utvecklingsbistånd för hälsa – för att stödja upptäckt och utvecklande av nya redskap för ökad hälsa;
- Lokalt utvecklingsbistånd för hälsa – eftersom några länder, bland annat de med resurssvaga och sköra stater, fortsatt kommer att behöva stöd utifrån. Denna typ av bistånd kan relativt enkelt ersättas med inhemska resurser allteftersom länder blir rikare.
- ”Glokalt” utvecklingsbistånd – till insatser där ett riktat lokalt stöd är betydelsefullt också för den globala nivån och utanför landets gränser. Denna form av stöd kan behövas även i länder som nått en betydande nivå av egna resurser. Exempel på sådana insatser kan vara insatser mot regionalt utbredd malaria eller hälsovård till flyktingar.

## *Svenskt bilateralt och multilateralt hälsobistånd går i huvudsak till lokala funktioner.*

Genom att tillämpa den nya klassificeringen på svenskt nuvarande hälsobistånd så finner vi att merparten (82 procent) av detta är inriktat mot lokala, snarare än globala, funktioner. Det saknas i dagsläget tillräckligt detaljerad statistik för att kartlägga hur mycket som anslås till ”glokala” funktioner.

Vi jämförde det bilaterala svenska hälsobiståndet med hälsobiståndet från fyra andra givarländer; Kanada, Nederländerna, Norge och Storbritannien. Gemensamt för samtliga dessa fem länder är att deras bilaterala bistånd i huvudsak stöder lokala funktioner. I genomsnitt använde de länderna enbart en sjättedel av sitt bilaterala bistånd till globala funktioner.

## *Ekonomisk tillväxt innebär att några länder kommer att ha fasats ut från svenskt hälsobistånd år 2035.*

År 2012 gick Sveriges hälsobistånd till tolv länder, sju av dem låginkomstländer, fyra lägre medelinkomstländer och ett övre medelinkomstland. Sverige planerar en utfasning av de två rikaste länderna på listan (Sydafrika och Guatemala) och en infasning av hälsobistånd till Myanmar. Denna förändring innebär att biståndet i ökande grad riktas mot länder med stora behov.

## *Det kommer sannolikt finnas fem huvudsakliga hälsoutmaningar för perioden 2015- 2035*

- Den oavslutade MDG-agendan, det vill säga den aktuella bördan av behandlingsbara sjukdomar och barn- och mödradödlighet i låg- och lägre medelinkomstländer;
- mikrob-utveckling, särskilt hotet från nya influensa-pandemier och antimikrobiell resistens;
- den globala krisen av icke-smittsamma sjukdomar och skador;
- katastrofala hälsoutgifter som driver hushåll in i fattigdom (omkring 150 miljoner människor drabbas varje år av finansiella katastrofer till följd av oförutsedda hälso- och sjukvårdsutgifter)
- Bristerna i dagens internationella hälso- och hälsofinansieringssystem, vilka inte är anpassade för de utmaningar som ligger framför oss (i synnerhet det alltför låga stödet till globala funktioner).

## *Sverige kan spela en nyckelroll för att hantera ovan utmaningar givet landets starka ställning inom global hälsa.*

Global hälsa är en central prioritering i svenskt bistånd. Sverige är en aktiv, synlig och inflytelserik givare, som blivit känt för insatser inom områden som sexuell och reproduktiv hälsa och rättigheter, barnmorskors arbete och i att hantera antibiotikaresistens. Sverige har vidare en växande roll i att hantera icke-smittsamma sjukdomar och skador. Man har också gjort sig känt för forskning kring smittsamma sjukdomar som i huvudsak drabbar fattiga länder – även om den övergripande finansieringen av denna forskning förblir relativt liten.

## *Svenskt hälsobistånd kommer sannolikt att öka under perioden 2015 – 2035*

Vi beräknar den möjliga tillväxten i svenskt hälsobistånd utifrån ett antagande om 2,5 procents reell svensk BNP-tillväxt och att biståndets andel av BNI förblir oförändrad. Våra beräkningar innehåller tre scenarier:

- Det framtida hälsobistånd ligger kvar som en andel på 13 procent av totalt svenskt bistånd;
- Hälsobiståndets andel av det totala biståndet stiger till 25 procent av det ökade biståndet;
- Hälsobiståndets andel av det totala biståndet stiger till 50 procent av det ökade biståndet.

Även i det mest återhållsamma scenariot kommer ytterligare tre miljarder SEK för hälsobistånd att finnas år 2035 jämfört med år 2013. I det mest optimistiska scenariot kommer ökningen i förhållande till dagens hälsobistånd att uppgå till 11,5 miljarder SEK per år. Vi menar att det finns goda argument att öka andelen bistånd som går till hälsoinsatser. Resultaten är tydliga inom detta bistånd och investeringar inom hälsosektorn ger starka positiva ekonomiska effekter.

## *Att investera det ökande svenska hälsobiståndet i specifika globala, lokala och ”glokala” insatser kan bidra till att uppnå målen i Global Health 2035*

I denna rapports senare del kopplar vi de övergripande hälsoutmaningar vi ser till styrkorna i svenskt hälsobistånd och ger en rad rekommendationer om hur Sveriges bistånd kan stödja målen som beskrivits i Global Health 2035, samt utgöra ett ”katalytiskt” exempel för andra biståndsgivare.

Investeringar i globala funktioner bör inriktas mot de områden som har störst potentiell effekt (som forskning) och där det saknas finansiering. Det bör också ges till organisationer som har visat hög effektivitet;

Investeringar i ”glokala” funktioner bör utgå från en analys av vilka utgifter som länder själva kan finansiera, och inriktas mot sådant som har största möjliga effekt, exempelvis att nå fattiga och avlägsna samhällen. Detta stöd bör kombineras med policydialog med mottagarländernas regeringar.

Investeringar i lokala funktioner bör i huvudsak riktas mot de länder som faller under en internationellt överenskommen tröskel av egna resurser, till exempel baserat på inkomstnivå. Stöd kan även ges till länder ovanför denna tröskel, men då riktas mot de fattigaste och mest sårbara delarna av befolkningarna. Dialog bör föras med sikte på att uppmana regeringar att inrikta sina egna insatser mot de viktigaste prioriteringarna.

Vilka investeringar som mer konkret föreslås framgår av tabell 12 på sidorna 72-74 i denna rapport.

# Executive summary

## Background to this study

On December 3, 2013, the Lancet Commission on Investing in Health (CIH) published *Global Health 2035: A World Converging within a Generation.* The report laid out a series of opportunities for donors, low-income countries, and lower middle-income countries to achieve dramatic gains in health by 2035. With enhanced investments to scale up existing and new health interventions, and the systems to deliver them, most low-income countries and lower-middle-income countries could achieve a "grand convergence" in global health, reducing avertable infectious and child deaths down to levels seen today in the best-performing middle-income countries. Convergence could be funded by a combination of domestic and donor spending and a realignment of donor priorities. The report also argued that non-communicable diseases and injuries could be curbed through fiscal policies (e.g. taxation of tobacco, alcohol, and sugar-sweetened beverages) and that pro-poor universal health coverage would be an efficient way to achieve health and financial protection.

A central argument in *Global Health 2035* is that the nature of development assistance for health will need to evolve over the next 20 years. Based on the projected economic growth of low-income countries and lower-middle-income countries, some of today's low-income countries, and many of today's lower-middle-income countries, should be able to graduate from development assistance for health over time, increasingly funding convergence from domestic sources. Given this likely shift (in which health aid is gradually replaced by domestic spending), the CIH argued that international collective action should be increasingly targeted towards the three essential "core functions" of global health: (a) providing global public goods (e.g. health research and development [R&D]), (b) managing negative cross-border externalities (e.g. preparing for the next influenza pandemic and tackling antimicrobial resistance), and (c) providing global health leadership and stewardship.

These trends could have important implications for Sweden's development assistance for health. For example, Sweden may wish to play a larger role in using its health aid to support the core functions

of global health, such as R&D or tackling antimicrobial resistance. And countries that currently receive direct assistance from Sweden may reach levels of income in the next two decades to enable them graduate from such assistance, so that the mix of countries supported by Sweden may evolve over time.

Given these potential implications, the Swedish Expert Group for Aid Studies commissioned our study group to review Swedish development assistance for health in order to propose options that could enable Sweden to align its health aid with emerging needs and priorities and to potentially set an example for other donor organizations.

This commissioned analysis, a "policy options" paper, is intended to stimulate discussion and debate, rather than to be a prescriptive document for what Sweden should do or not. The analysis has 7 key messages.

## 1. Classifying development assistance for health by its functions helps to articulate the roles of health aid in the post-2015 era

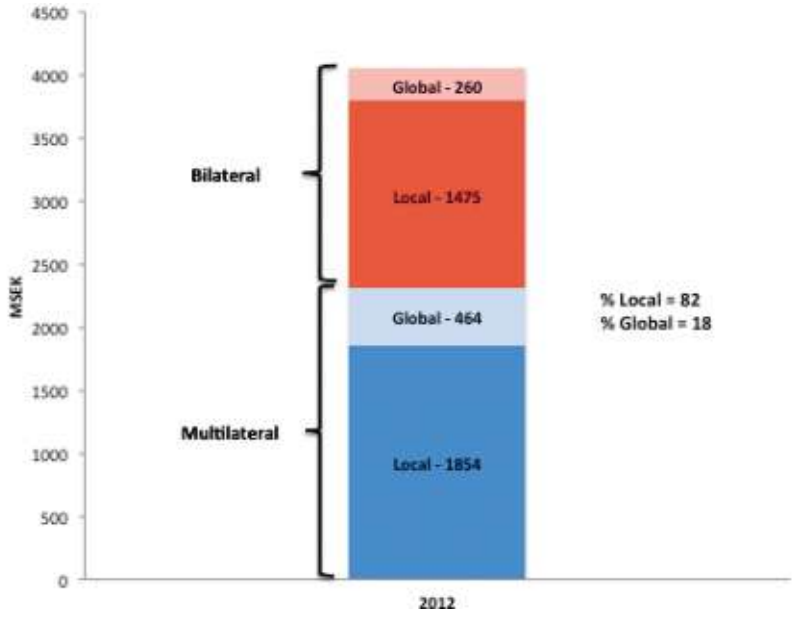
An important innovation in this new report is that we go beyond the standard ways of classifying development assistance for health (by disease or country target) and propose a new classification of development assistance for health, one that is based on considering the *functions* that development assistance for health will need to serve in the post-2015 era. We classify development assistance for health into three key types:

- As mentioned, there will be a crucial role for development assistance for health in addressing global, transnational issues (e.g. in supporting the discovery and development of new health tools); we classify this as **global development assistance for health**.
- Some countries, for example fragile states, are likely to remain resource-poor and will still need direct support for health programs, which we classify as **local development assistance for health**. We define local development assistance for health as fungible aid to low-income countries/middle-income countries that could be replaced with domestic financing as countries get richer.

- A third type of aid can be classified as **"glocal" development assistance for health**; the word "glocal" refers to combining local with global considerations, and thus provides a useful denotation for direct country assistance that has a global element. This third category recognizes that some kinds of development assistance for health to low-income countries/middle-income countries, or sub-regions of these countries, have a "global dimension" and warrant support from the international health and development community even after a country has experienced significant economic growth. For some of these countries, development assistance for health will remain important in supporting governments to tackle supranational health challenges (e.g. regional malaria) or to provide certain services that face domestic obstacles (e.g. refugee health services).

## 2. Swedish bilateral development assistance for health and multilateral development assistance for health mostly target local functions

Applying our new classification of development assistance for health to Sweden's current development assistance for health, we find that most of Sweden's bilateral and multilateral development assistance for health is directed at local rather than global functions. There were insufficient data to enable us to identify disbursements to "glocal" functions. The breakdown of Sweden's development assistance for health in 2012 is shown below (MSEK: million Swedish kronor).




We compared Sweden's bilateral development assistance for health with that of four other donors, Canada, the Netherlands, Norway, and the UK, and found that for all five countries most bilateral assistance supports local functions. On average, the five donors devote just one sixth of their bilateral funding to global functions, mostly to providing global pubic goods.

## 3. Economic growth means some countries may graduate from Swedish development assistance for health by 2035

In 2012, Sweden gave country support for health to 12 countries with a range of income levels and health needs: 7 low-income countries, 4 lower-middle-income countries, and one upper-middle-income country. Sweden plans to phase out support for the two highest income countries on the list (South Africa, Guatemala) and phase in support for Myanmar starting in 2014; this shift will increasingly target bilateral resources on poorer countries with greater health needs.

How is the mix of countries supported by Sweden likely to change over the next twenty years? The mix will probably be influenced by

the anticipated economic growth of low-income countries and middle-income countries and by the development assistance for health eligibility criteria that Sweden adopts. Based on projected economic growth, we estimated and compared the distribution of countries across World Bank income classifications in 2012 and 2035. Our projections suggest that:

- The number of high-income countries will rise from 75 countries in 2012 to 94 countries (including China) by 2035, with the proportion of the world's population living in HICs rising from 18 per cent to 40 per cent. There will therefore be a much larger number of donor countries to provide external assistance.
- The number of upper-middle-income countries—55 countries in 2012—will remain unchanged by 2035, but the mix of countries included in this category will change. The share of the world's population in this category is predicted to fall from 34 per cent to 18 per cent. Most countries in this category are expected to experience large income growth over the period 2012-2035 and are likely to graduate from development assistance for health.
- The number of lower-middle-income countries will fall from 48 in 2012 (36 per cent of the population) to 43 in 2035 (32 per cent of the world's population). In general the countries in this category are set to experience significant income growth, with many moving from low-income country to lower-middle-income country status between 2012 and 2035.
- The number of low-income countriess will fall by about one-third from 2012 to 2035, from 36 to 18-22. But in part because of high fertility rates in many of the countries, the share of the world's population in the low-income countries category falls by a smaller share, from 12 per cent to about 8-10 per cent, depending on the economic growth scenario. Most, if not all, countries in this category will require development assistance for health to 2035.[1]

The table below summarizes our projections of the gross national income per capita (GNI per capita) growth from 2013 to 2035 in 11 of the countries currently supported by Swedish development assistance

[1] These countries are Afghanistan, Burundi, Central African Republic, Chad, DR Congo, Eritrea, Ethiopia, Gambia, Guinea, Guinea-Bissau, Korea DPR, Liberia, Madagascar, Malawi, Niger, Somalia, Togo, Uganda, Tanzania, and Zimbabwe.

for health.[2] Growth is projected to be particularly strong for Bangladesh, DR Congo, India, South Sudan, Tanzania, and Uganda.

| | 2013 GNI p.c. and Projected GNI p.c. (2013 US$) | | | | Income Classification | | |
|---|---|---|---|---|---|---|---|
| | 2013 | 2020 | 2035 | Growth Rate | 2013 | 2020 | 2035 |
| Bangladesh | 900 | 1310 | 2390 | 4.5% | LIC | LMIC | LMIC |
| DR Congo | 400 | 550 | 810 | 3.3% | LIC | LIC | LIC |
| Guatemala | 3340 | 3590 | 4440 | 1.3% | LMIC | LMIC | UMIC |
| India | 1570 | 2240 | 4040 | 4.4% | LMIC | LMIC | LMIC |
| South Africa | 7190 | 8400 | 11900 | 2.3% | UMIC | UMIC | UMIC |
| South Sudan | 1120 | 1670 | 2730 | 4.1% | LMIC | LMIC | LMIC |
| Sudan | 1130 | 1330 | 1850 | 2.3% | LMIC | LMIC | LMIC |
| Tanzania | 630 | 830 | 1140 | 2.7% | LIC | LIC | LMIC |
| Uganda | 510 | 650 | 880 | 2.5% | LIC | LIC | LIC |
| Zambia | 1480 | 1850 | 2390 | 2.2% | LMIC | LMIC | LMIC |
| Zimbabwe | 820 | 910 | 1310 | 2.2% | LIC | LIC | LMIC |

In addition to Guatemala and South Africa being phased out, and Myanmar being phased in, other changes in the list of countries supported by Sweden would depend on the development assistance for health eligibility criteria that Sweden adopts. A number of different graduation "cut-offs" have been suggested—for example, for 2014, the "cut-off" for GAVI Alliance ("GAVI") support was set at USD 1,570 and World Bank IDA eligibility at USD 1,205. If GAVI's cut-off were to remain at USD 1,570 by 2035, and if Sweden were to follow GAVI's graduation threshold, we estimate that only 4 of the 12 countries currently supported by Sweden would still be eligible for Swedish health aid by 2035 (DR Congo, Tanzania, Uganda, Zimbabwe).

Sweden's bilateral health engagement has shown a good deal of flexibility over time. Perhaps more than many bilateral donors, Sweden has shown its ability to end large programs in specific countries in order to shift its support to where it might be most needed or better used. Sweden could continue to sharply focus its bilateral aid on the poorest countries, balancing that objective against other factors, such as targeting assistance to well-governed countries.

[2] There is no reliable income statistics for Somalia. The country is, however, estimated to be a low-income country, i.e. having a GNI per capita < USD 1,045.

## 4. There are likely to be five key global health challenges for the period 2015-2035

In addition to these economic projections, we also examined the global health challenges that are set to be dominant and will require focused action from 2015-2035. These are likely to be:

i. The "unfinished health MDGs agenda," i.e. the ongoing burden of preventable infectious, maternal and child deaths that persist in low-income countries and lower-middle-income countries;

ii. Microbial evolution, especially the threat of a new influenza pandemic and of antimicrobial resistance;

iii. The global crisis of NCDs and injuries;

iv. Catastrophic medical expenses pushing households into poverty (around 150 million people each year suffer financial catastrophe due to medical expenses); and

v. The limitations in the current international collective action arrangements and health financing levels, which are not "fit for purpose" in dealing with post-2015 health challenges (in particular, there is inadequate support for global functions).

## 5. Sweden can play a key role in tackling these challenges, given its impacts and strengths in global health

Global health is a core priority for Swedish development assistance. Sweden is an active, visible, and influential donor within the global health landscape. It has gained a reputation for impact in global health in the areas of sexual and reproductive health and rights (including provision of contraception and safe abortion services), midwifery (e.g., Sweden provides major support to UNFPA that is primarily for midwifery), and tackling antibiotic resistance. It has a growing commitment to and reputation in tackling NCDs and injuries (including through road traffic safety). While it also has a strong reputation in its support for research on infectious diseases that disproportionately affect low-income countries and middle-income countries, the overall funding level remains relatively small—about 200 million SEK annually.

## 6. Significant additional Swedish development assistance for health is likely to be available from 2015 to 2035

We estimated the possible growth in Swedish development assistance for health, assuming 2.5 per cent real GDP growth and that the share of GDP devoted to aid remains constant. Our projections include three scenarios:

- The additional development assistance for health (the "development assistance for health increment") remains at 13 per cent of the total aid increment. That is, development assistance for health remains as it is today, at 13 per cent of total Swedish aid);
- The development assistance for health increment rises to 25 per cent of the total aid increment; or
- The development assistance for health increment rises to 50 per cent of the total aid increment.

Even under the most conservative scenario, an additional 3,000 million SEK per year will be available in 2035 over 2013 development assistance for health; under the most optimistic scenario, an additional annual 11,500 million SEK per year would be available. We believe there is a strong rationale for increasing the proportion of total aid that is targeted to development assistance for health. First, development assistance for health has a strong record of exceptional implementation success, as shown for example by the robust association between development assistance for health for scaling up HIV and malaria control tools and reduced mortality from these infections. Second, the returns to investing in the health sector are very large—benefit-cost analyses can be around 5-10 or even higher.

## 7. Investing this additional Swedish development assistance for health in specific global, local and "glocal" functions could help reach the *Global Health 2035* goals

In the final section of our report, we link the five key post-2015 global health challenges to the strengths of Sweden's development assistance for health and the additional Swedish development assistance for health that may be available, spelling out a range of policy options that

we believe could help to (a) align Swedish development assistance for health with the goals and targets of *Global Health 2035* and (b) set a "catalytic" example to other bilateral donors. We set out a number of overarching principles in considering the channeling of Swedish development assistance for health from now to 2035 to global, "glocal," and local functions:

- **Investment in global functions**: Funding should follow from Sweden's particular interests and strengths. It should be directed to global functions that have the greatest potential impact (e.g. R&D) and face a funding shortfall, and to institutions or organizations (or specific initiatives or departments within organizations) that have demonstrated their effectiveness.
- **Investment in "glocal" functions:** The fungibility of funding should be analyzed as a criterion for external financing (if the function can easily be funded domestically, it is less likely to warrant development assistance for health). Funding should be directed to under-funded "glocal" functions that have the greatest potential impact (e.g. reaching poor, remote communities). It should be coupled with dialogue to influence policy change.
- **Investment in local functions:** Funding should primarily be directed to countries that fall below an agreed eligibility threshold, for example based on the World Bank income classification or IDA eligibility. Funding could be given to countries above this eligibility threshold, but should then ideally be targeted at the poorest, most vulnerable sub-populations. Dialogue should be initiated to influence countries to focus spending tightly on true priorities.

Table 12 (page 72-74) provides an overview of potential investments that Sweden could make to support these three types of functions as a way to help tackle the post-2015 global health challenges.

# Section 1: Introduction: Study background and purpose

## 1.1 The Commission on Investing in Health

On December 3, 2013, *The Lancet* published *Global Health 2035: A World Converging within a Generation* (http://globalhealth2035.org). This was the report of the Commission on Investing in Health (CIH), which was chaired by Lawrence Summers and Dean Jamison and written by an international team of 25 health and economics experts.[1] The report lays out an ambitious global health investment strategy for the post-2015 era. Such a strategy could be funded by a combination of domestic and donor spending and a realignment of donor priorities. It received major publicity and was discussed at donor events and briefings, including in Beijing, Berlin, Johannesburg, London, Paris, Tunis, and the World Economic Forum (Davos).

Since *Global Health 2035* forms the basis for our analysis of, and recommendations on, Swedish development assistance for health, we begin with a short summary of the five key findings of *Global Health 2035* (denoted as key findings (a) through (b)), including a discussion of the CIH's vision for the future of development assistance for health. This is followed by a set of aims for this current study. We also propose a new classification of development assistance for health that we believe will be helpful in discussions of the role of external assistance in the post-2015 era, a classification that we use throughout the rest of this new study.

## 1.2 Key Findings of *Global Health 2035*

**Key finding (a): For infectious, maternal, and child deaths, a grand convergence in health is feasible by 2035.** Modeling suggests that if enhanced investments are made to scale up both existing and new health tools, a "grand convergence" in global health, in which infectious, maternal and child deaths are reduced to universally low levels, could be achieved by 2035 (e.g. a child mortality rate of 16 per 1,000 live births) (Figure 1). The investment would cost an additional

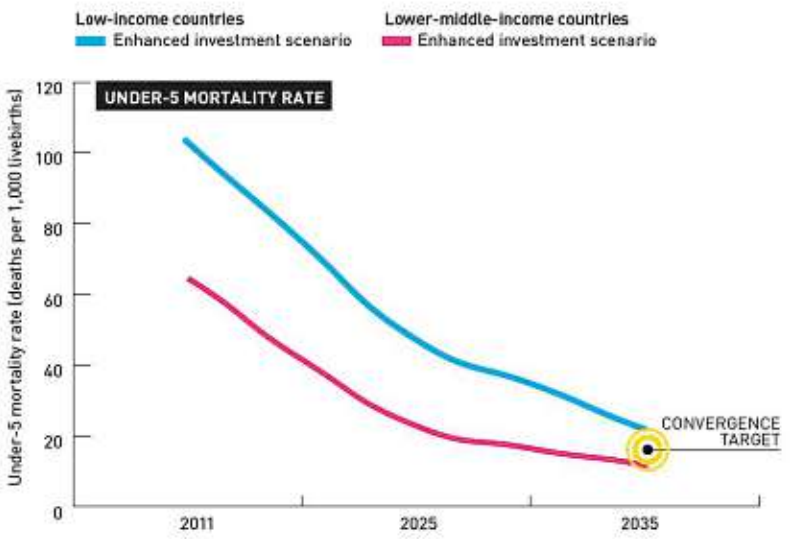
annual average amount of USD 70 billion across low- and lower-middle-income countries, over and above current spending.

Achieving convergence would mean that infectious, maternal and child deaths in most low-income countries and lower-middle-income countries would fall to levels currently seen today in the best-performing middle-income countries, such as Chile, Costa Rica, and Turkey. Such an achievement would avert about 10 million deaths per year from 2035 onwards, about 4-5 million per year in low-income countries, and about 6 million per year in lower middle-income countries.

Appendix 1 summarizes the methodological approach for these estimates and discusses the assumptions and uncertainties that are inherent in the modeling. The appendix shows what would be needed to achieve convergence:

- Very high coverage levels, typically 90 percent or more, of current evidence-based interventions for infections and reproductive, maternal, newborn and child health conditions;
- Sustained economic growth in low-income countries and lower-middle-income countries (the CIH forecasts real gross domestic product growth per year at 4.5 per cent for today's low-income countries and 4.3 percent for today's lower-middle-income countries from 2011 to 2035);
- Continued investment in development assistance for health (as discussed below, even under quite conservative assumptions on the growth in domestic spending on health in low-income countries, donors would still need to cover about one third of the cost of achieving convergence in these countries); and
- Enhanced investments in the discovery and development of new health tools for infections and reproductive, maternal, newborn and child health conditions. The CIH calls for a doubling of current investments in research and development for diseases of poverty, from USD 3 billion/year currently to USD 6 billion/year by 2020.

**Figure 1. Impact of enhanced health investments on under-five mortality rates in low-income countries and lower-middle-income countries.**




The "enhanced investment" scenario is described in Appendix 1. Figure from http://www.globalhealth2035.org/sites/default/files/policy-briefs/policy-brief-1-english.pdf

**Key finding (b): The returns to investing in such a convergence around infectious, maternal, and child deaths would be very impressive.** The benefit to cost ratio would be about 9-20 over the period 2015-2035 (the ratio would be 9 in low-income countries and 20 in lower-middle-income countries).[1]

**Key finding (c): Development assistance to support control of infectious, maternal, and child deaths (i.e. to support convergence) is likely to shift increasingly towards supporting global functions, such as providing global public goods and managing cross-border externalities (e.g. antimicrobial resistance and pandemic preparedness).** *Global Health 2035* estimated that the cost of achieving convergence would be an additional USD 70 billion annually across low-income countries and lower-middle-income countries from 2015 to 2035. The USD 70 billion figure is an annualized estimate (the amounts would vary slightly each year), and constitutes about USD 25 billion/year in low-income countries and USD 45 billion/year in lower-middle-income countries (Appendix 2 shows the breakdown of these costs). Using data from the 2013 World Development

Indicators, we estimate that in 2012, annual total spending on health in low-income countries was about USD 26 billion and in lower-middle-income countries it was about USD 217 billion. Thus the average annual incremental cost of achieving convergence would represent about a doubling of current spending in low-income countries, and a 20 per cent increase over current spending in lower-middle-income countries. In low-income countries, most of the increased investments needed would be structural investments in the health system, whereas in lower-middle-income countries, which start off today with stronger health systems than those in low-income countries, most costs would be programmatic (such as the costs of medicines, vaccines, and insecticide-treated bed nets to prevent malaria). The report also estimated that low-income countries would reach only about two thirds of the way to convergence with scale up of *existing tools*, and lower-middle-income countries would reach about four-fifths of the way (Table 1); the gap can only be fully closed by 2035 through development and delivery of *new tools*.

**Table 1. Summary of the impact and costs of achieving convergence by 2035**

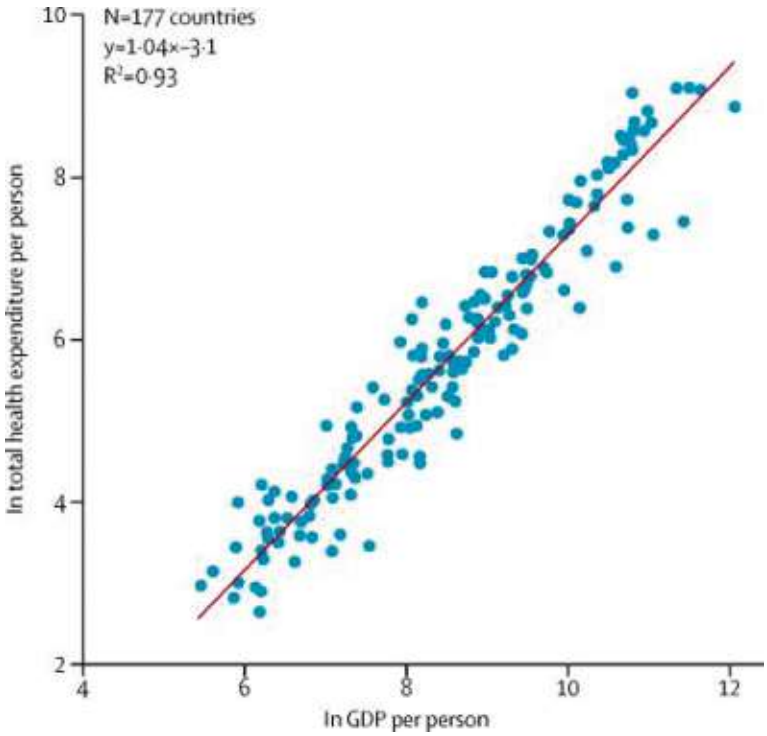
| Low-income countries | Lower middle-income countries |
|---|---|
| **Annual deaths averted from 2035 onwards** | |
| 4.5 million | 5.8 million |
| **Approximate incremental cost per year, 2016-2035** | |
| $25 billion | $45 billion |
| **Proportion of costs devoted to structural investments in health system** | |
| 60-70% | 30-40% |
| **Proportion of health gap closed by existing tools (rest closed by R&D)** | |
| 2/3 | 4/5 |

While economic growth projections always have inherent uncertainties, nevertheless the CIH carried out such projections for low- and lower-middle-income countries in order to derive a rough estimate of the potential for these countries to increase their domestic health spending. The CIH projections, shown in more detail in Appendix 3, forecast real GDP growth per year at 4.5 percent for today's low-income countries and 4.3 percent for today's lower-middle-income countries from 2011 to 2035. At these rates, GDP in 2035 would be 195 per cent higher in low-income countries, 180 per

cent higher in lower-middle income countries than in 2011. The GDP in low-income countries would then have increased by $920 billion in 2035 over 2011, of which the incremental cost of convergence in 2035 would be about $30 billion or just 3 per cent of the increase in GDP. For lower middle income countries, the GDP would have increased by $8719 billion in 2035 over 2011, of which the incremental cost of convergence in 2035 would be around $61 billion, or less than 1 per cent of the GDP increase.

While acknowledging the uncertainty associated with such calculations, they do nonetheless suggest that today's low-income countries and lower-middle-income countries will have growing domestic finances at their disposal. If just a small portion of this additional finance is directed to the health sector, most, but not all, countries will be able to finance convergence mostly through domestic resources. There is robust evidence showing that when country income grows, domestic health spending as a percentage of GDP grows (the so-called "first law of health economics"; see Figure 2).[4] Thus we can expect domestic health financing in low-income countries and lower-middle-income countries to grow from now to 2035.

**Figure 2. Relation between country income and health spending.[1] ln: natural logarithm.**




Under such growth scenarios, how much external assistance will be required to fund convergence? Public (government) spending on health is currently about 2 percent of GDP for the current group of low-income countries and 1.7 percent of GDP for the current group of lower-middle-income countries. The CIH projected two scenarios for the rise in public spending on health as a share of GDP in the post-2015 era. The first scenario (*a "realistic" scenario*, based on the first law of health economics[4]) is that such spending grows from present levels to 3 percent of GDP by 2035, and a second scenario (*an "optimistic" scenario*) is that it grows to 4 percent of GDP by 2035. Combining these scenarios with the estimates of GDP growth described above, and assuming that under both scenarios roughly two-thirds of all health spending is devoted to the convergence agenda (i.e. to infections and RMNCH conditions), the CIH suggested that:

- Under the *realistic scenario*, **today's low-income countries** could fund about two thirds of the cost of convergence by 2035 if they allocated two-thirds of the projected increase in public spending on health to this effort. About one third would need to come from external assistance. Some countries (particularly fragile and post-conflict states) will, of course, need more help from development assistance for health than others. Under the *optimistic scenario*, low-income countries could fund convergence entirely from domestic sources assuming these countries were willing to direct two-thirds of the projected increase in public spending on health to convergence.
- Under *both scenarios*, **today's lower-middle-income countries** would be able to fund convergence entirely themselves.

Overall, given the possible economic growth of low-income countries and lower-middle-income countries described above, the CIH argued that some of today's low-income countries, and many of today's lower-middle-income countries, are likely to be able to graduate over time from direct external assistance. As we describe later in this report, the proportion of the world's population living in low-income countries is projected to fall from 12 per cent in 2012 to 8-10 per cent in 2035, and the proportion living in high-income countries is projected to increase from 18 per cent to 40-42 per cent over the same time period (in part driven by China's move to high-income country status). These likely changes might in turn lead to new countries becoming donors—as seen, for example, by the arrival of new donors such as Brazil, China and India. Given these economic changes, the CIH suggested that the nature of development assistance for health is likely to change and evolve over the next twenty years.

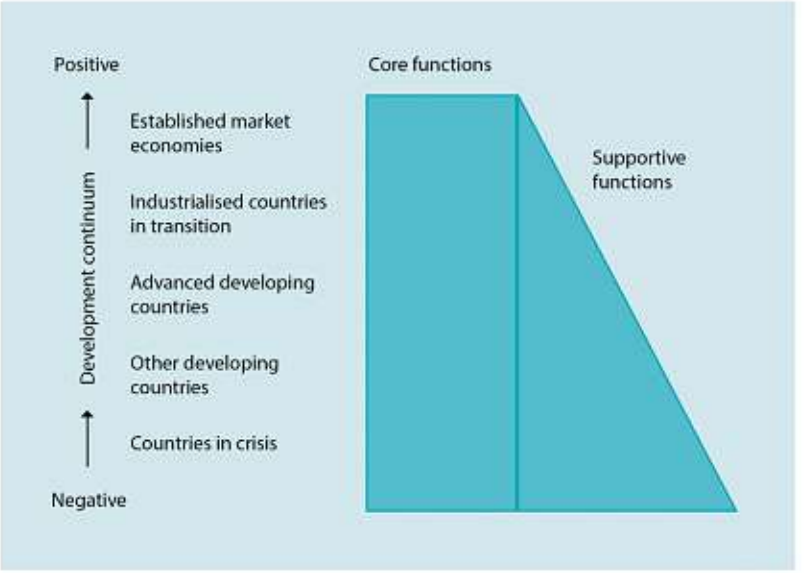
*Global Health 2035* made the case that as development assistance for health increases in real terms, a greater share of development assistance for health could be targeted, over time, towards the core functions of global health (Table 2). Supportive functions of global health will need to continuously target *the poorest countries that most require assistance*. **Core functions** are defined by Jamison, Frenk and Knaul as those that "transcend the sovereignty of any one nation state and represent the permanent responsibilities of global health institutions."[6] They are distinct from the **supportive functions**, which are aimed at tackling "time-limited problems within individual countries that justify international collective action because of highly

constrained national capacity." This distinction between core and supportive functions becomes particularly important when resource-poor countries move along the development continuum as a result of economic growth. As their income grows, they are increasingly able to replace supportive development assistance for health with domestic spending (Figure 3).

**Table 2: Four key functions of international collective action (three core functions and one supportive function)[1]**

| Function | Key types |
|---|---|
| ***Core function:*** Providing global public goods | ▪ Research and development of new health tools<br>▪ Development/harmonization of technical standards, guidelines, and norms ('international health regulations')<br>▪ Knowledge generation and sharing, including implementation research<br>▪ Intellectual property and market shaping activities (e.g. reducing drug prices, patent pools, pooled procurement, stockpiling vaccines) |
| ***Core function:*** Controlling cross-border externalities | ▪ Surveillance, information sharing, coordination for preparedness and response, and policy/regulatory regimes to manage externalities such as: (i) cross-border spread of infections, (ii) drug resistance, (iii) counterfeit drugs, (iv) marketing of unhealthful products such as tobacco, and (v) malaria elimination as well as all other elimination efforts (e.g. for polio) |
| ***Core function:*** Leadership and stewardship | ▪ Global health advocacy and priority setting; evaluation for mutual accountability; harmonization of global initiatives; promotion of aid effectiveness |
| ***Supportive function:*** Direct country assistance | ▪ Financial assistance to countries<br>▪ Technical cooperation at national level<br>▪ Bilateral health support programs<br>▪ Emergency humanitarian assistance |

**Figure 3. Relative importance of core versus supportive functions along the development continuum.[6]**




A background analysis by Results for Development (R4D), conducted for the CIH, suggested that investments in core functions by several large donors have been relatively neglected over the last 20 years.[7] The CIH argued that these core functions will need to be greatly strengthened if the world is to tackle the next generation of health challenges, including the unfinished agenda of infectious, maternal, and child deaths; antibiotic resistance; and pandemic preparedness. For example, as noted above, convergence around infections and maternal and child deaths will require new health tools. A key recommendation of the CIH report was that "the international community can best support convergence by funding the development and delivery of new health technologies and curbing antibiotic resistance."[1] Only about US 3 billion is spent annually on infectious diseases that disproportionately affect low- and middle-income countries.[3] Both the CIH and the WHO Consultative Expert

[3] This figure, from the G-FINDER refers to 31 infectious diseases: HIV/AIDS, TB, malaria (falciparum, vivax, and other strains), dengue, diarrheal diseases, African sleeping sickness, Chagas disease, leishmaniasis, helminths, bacterial pneumonia, bacterial meningitis, salmonella, leprosy, Buruli ulcer, trachoma.

Working Group on Research and Development have argued that (i) US 3 billion is a major under-investment, (ii) the amount should be doubled to US 6 billion per year based on the burden of disease, and (iii) this investment should be considered as investing in a global public good, with countries contributing according to the size of their economy. The CIH notes that: "Investment in research and development as a global public good leverages the neglected comparative advantage of development assistance for health and provides perhaps the most direct way that external funding can benefit high-mortality populations in middle-income countries." Investment in health research and development also brings impressive economic returns.[1]

The economic growth of low-income countries and lower-middle-income countries will mean that some will become less reliant on external assistance, but it is overly simplistic to believe that all such countries will be able to tackle their domestic health challenges without development assistance for health by 2035. Their economic growth will not be equal across all countries. Many low-income countries and some lower-middle-income countries will continue to require direct financial assistance from donors for years to come to help pay for the medicines, vaccines, diagnostics, and health systems strengthening that are needed to reduce avertable deaths from infections and reproductive, maternal, newborn and child health conditions. And even if low-income countries and lower-middle-income countries do experience sufficient economic growth to fund health programs from domestic sources, some of these countries may still face a number of social and political challenges in improving public health. For example, it may remain difficult for them to reach certain sub-populations, such as refugees and poor people living in remote areas; indeed, most of the world's poor now live in poor regions of middle-income countries rather than in low-income countries.[1] Thus there will still be an important role for direct country support.

**Key finding (d): The burden of non-communicable diseases (NCDs) and injuries can be sharply curtailed through fiscal policies and "packages" of low cost clinical interventions.** Fiscal policies (e.g. taxation of tobacco, alcohol, and sugar-sweetened beverages, and removal of fossil fuel subsidies) are a powerful, under-used lever for curbing NCDs and injuries and for raising new domestic revenue for health spending. For example, one modeling study suggested that a 50

per cent price increase in cigarettes from tax increases in China would prevent about 20 million deaths and generate an extra USD 20 billion in revenue annually in the next 50 years.[2] Over the same time frame, a 50 per cent tobacco price increase in India would prevent around 4 million deaths and generate an extra USD 2 billion in revenue annually.[2] In addition to these policies, the WHO recommends that all countries should provide an essential package of "best-buy" clinical and population-based interventions for non-communicable diseases (NCDs), as shown in Table 3.[1,3]

Financing will clearly be needed to scale up these "best buy" interventions. As previously discussed, the modeling that the CIH conducted on convergence included infectious, maternal, and child deaths, but *it did not include* NCDs and injuries. Initially, much of the financing to tackle NCDs and injuries will be private, but as national incomes grow, public finance will ideally supersede private sources. Development assistance for health is likely to play a small but important part in enabling the generation and transfer of relevant knowledge on NCD control. The WHO estimates that the annual cost to scale up the "best buy" NCD clinical and population-based interventions shown in Table 1 across 42 low- and middle-income countries would be USD 11.4 billion (about USD2 million/year for the population-based measures and the rest for the clinical interventions).[3]

**Table 3. Essential package of "best buy" non-communicable disease interventions [a]**

| Risk factor/disease | Best buy[a] NCD interventions |
|---|---|
| Tobacco use | • Tax increases<br>• Smoke-free indoor workplaces and public places<br>• Health information and warnings<br>• Bans on tobacco advertising, promotion and sponsorship |
| Harmful alcohol use | • Tax increases<br>• Restricted access to retailed alcohol<br>• Bans on alcohol advertising |
| Physical inactivity and unhealthy diet | • Reduced salt intake in food<br>• Replacement of trans fat with polyunsaturated fat<br>• Public awareness through mass media on diet and physical activity |
| Cardiovascular disease (CVD) and diabetes | • Counselling and multi-drug therapy[b] for people with a high risk[c] of developing heart attacks and strokes (including those with established CVD)<br>• Treatment of heart attacks with aspirin |
| Cancer | • Hepatitis B immunization to prevent liver cancer (this intervention has already been scaled up to high coverage levels)<br>• Screening and treatment of pre-cancerous lesions to prevent cervical cancer |

[a] These interventions are judged by the WHO to be best buys on the basis of their cost-effectiveness, effect on health, feasibility, and low implementation costs. Across all LICs and MICs, the package would cost only about USD 11.4 billion annually (2011 US dollars).[3] The CIH recommends that all national governments should scale up this essential package. In particular, there is good evidence to suggest that the single most important intervention in this package is tobacco taxation.[1] Given the recent price reduction for HPV vaccines, the CIH also recommends that HPV vaccination should be included in the essential package.[1]

[b] Multidrug therapy is aspirin, betablockers, antihypertensives, lipid-lowering drugs, angiotensin-converting enzyme inhibitors, and glycaemic control; various combinations of drugs are available as polypills.

[c] High risk means people who have had a heart attack or stroke and those with a high risk (30 per cent or more) of a cardiovascular event in the next 10 years.

**Key finding (e): Pro-poor universal health coverage (UHC) is an efficient way to purchase health and financial protection.** To be pro-poor, universal health coverage needs to protect the poor from day one through public financing of interventions that disproportionately affect them. The first step is to ensure universal

coverage with (i) the full range of evidence-based interventions tackling infections and reproductive, maternal, newborn and child health conditions (the "convergence" conditions), as described in Appendix 1; and (ii) the essential package of "best-buy" interventions for non-communicable diseases shown in Table 3.[1,3]

## 1.3 Purpose of this study

The trends described above could have important implications for Sweden's development assistance for health. For example, countries that currently receive direct assistance from Sweden may reach levels of income in the next two decades to enable them to graduate from such assistance, such that the mix of countries supported by Sweden may evolve over time. To give another example, if donors such as Sweden believe that there is under-investment in research and development for diseases that disproportionately affect low- and lower-middle-income countries, it may spur them to increase their investments in this arena.

The purpose of this study is to review Swedish development assistance for health in order to propose options that could enable Sweden to align its development assistance for health with emerging needs and priorities and to potentially set an example for other donor organizations.

The report is intended to stimulate discussion and debate, rather than to be a prescriptive document for what Sweden should do or should not do. The aim is to bring an independent "outsider" perspective to the consideration of Sweden's development assistance. The idea is to draw broad lessons from the *Global Health 2035* report that could be applied to the future of development assistance for health, with a particular focus on Sweden. Thus this new analysis looks to the future in considering Swedish development assistance for health specifically through the lens of the *Global Health 2035* health investment framework and goals.

The analysis is informed by the CIH's recommendations on how development assistance for health will likely need to evolve to achieve the goals of *Global Health 2035*. We examine current Swedish bilateral and multilateral development assistance for health, the strengths of such assistance, and the core and supportive functions that this assistance supports. We also estimate the possible growth in

Swedish development assistance for health from now to 2035. Based on this analytic approach, we then put forward a suite of policy opportunities for Sweden to make an even greater impact on global health in the post-2015 era.

The study addresses five key questions:

1. To which countries and multilaterals is Swedish development assistance for health disbursed and which global health functions does this development assistance for health support?
2. How does this support compare to that of other major donors?
3. What are the implications of these findings for Sweden's development assistance for health over the next 20 years?
4. How should global development assistance for health be directed in the future to support *Global Health 2035* goals (including convergence) and what is Sweden's role in this evolution? Are there new areas for development assistance for health where Sweden might act as a pioneer?
5. What policy changes are required for Swedish development assistance for health to be highly relevant and effective in the future?

## 1.4 A new classification of development assistance for health

Considering the potential roles for development assistance for health over the next generation, there appear to be a number of limitations to the "core versus supportive" distinction which is used in *Global health 2035*; in addition, the labeling of aid as core or supportive could also be somewhat confusing.

The simple dichotomy of development assistance for health into core and supportive also fails to capture the types of direct country assistance that (a) have an element of international collective action, and (b) may not be easily replaced by domestic financing when low-income countries/lower-middle-income countries become wealthier. Thus we now propose a new classification of development assistance for health into three types—global, local, and "glocal"—shown in Table 4. The word "glocal" refers to combining local with global

considerations,[8,9] and thus provides a useful denotation for direct country assistance that has a global element.

The value of this classification is in recognizing the important role that development assistance for health will play at country level *even after countries have graduated from needing direct country support*. For some of these countries, development assistance for health will remain important in supporting governments to tackle supranational health challenges (e.g. regional malaria) or to provide certain services that face domestic obstacles (e.g. refugee health services). While we found it challenging to collect data on exactly how much development assistance for health is currently targeted at such "glocal" functions, nevertheless we found the concept very helpful in the overall analysis and framing.

Furthermore, the division of aid into global, local and "glocal" functions represents an attempt at moving away from analyzing development assistance for health according to the traditional country- or disease-specific focus. While there is clearly great value in tracking development assistance for health by disease and country target, as is done annually for example by the Institute for Health Metrics and Evaluation,[10] we believe that there are several benefits of analyzing development assistance for health according to *functions*. This new approach will allow donors to better understand when and where (a) domestically generated resources ought to finance certain health activities, and (b) there is justification for continued external assistance or the use of pooled funding from a number of countries to align trans-national benefits with sources of financing. Table 4 gives examples of global, local, and "glocal" functions.

**Table 4: Three key roles for development assistance for health: global, local, "glocal"**

| Role for DAH | Definition | Example |
|---|---|---|
| Global | Aid to address global, transnational issues (equivalent to the three "core" functions shown in Table 2) | R&D of new health tools |
| Local | Fungible aid to LICs/LMICs that could be easily replaced with domestic financing as countries get richer | DAH to support the purchase of health commodities (e.g. vaccines, antiretroviral drugs) or to pay health workers to deliver maternal and child health services |
| "Glocal" | This category recognizes that some kinds of DAH to LICs/LMICs, or sub-regions of these countries, have a "global dimension" and warrant support from the international health and development community even after a country has experienced significant economic growth. It refers to DAH that is less fungible and that is used to (a) tackle supranational (regional, international) health concerns or (b) overcome constraints resulting from unwillingness or inability of governments to deal with certain subpopulations or certain health issues. | DAH to governments for malaria control to reduce cross-border, regional spread; DAH to governments to tackle the health problems of refugees or to provide reproductive health and abortion services. |

## 1.5 Structure of this report

Throughout the rest of this report, we use the classification shown in Table 4 as an overarching framework for considering development assistance for health today and how development assistance for health will need to evolve in the post-2015 era. Unfortunately, there were insufficient data to allow us to estimate the *current* targeting of such aid towards "glocal" functions—nevertheless, we use the classification of development assistance for health into global, "glocal," and local in

considering the ways in which Sweden's *future* development assistance for health could be targeted.

The remainder of this report is divided into three further sections.

**Section 2** examines Sweden's development assistance for health, and is divided into 5 sub-sections:

- Section 2.1 gives a brief overview of Swedish development assistance for health
- Section 2.2 examines Sweden's support to multilateral agencies, and estimates the proportion of Sweden's multilateral support that is directed towards global versus local functions
- Section 2.3 assesses Sweden's bilateral development assistance for health to 12 countries, and estimates the proportion of this support that is directed towards global versus local functions; this sub-section also includes a comparison of Sweden's bilateral development assistance for health with that of four other donors (Canada, the Netherlands, Norway, and the United Kingdom)
- Section 2.4 gives a short, overarching summary of the breakdown of Swedish multilateral and bilateral development assistance for health by function
- Section 2.5 estimates how the designation of countries as low-income, lower-middle-income, upper-middle-income and high-income could evolve from 2015 to 2035, and discusses the implications of these changes for Sweden's bilateral development assistance for health.

**Section 3** outlines global health challenges and opportunities in the post-2015 era and is divided into 3 sub-sections:

- Section 3.1 summarizes the five key global health challenges and opportunities for the 2015-2035 period
- Section 3.2 examines Sweden's strengths and impacts in global health, based on reviewing the literature and conducting key informant interviews with technical experts
- Section 3.3 estimates the potential growth in Swedish development assistance for health to 2035.

**Section 4** proposes a suite of policy options to align Swedish development assistance for health with the recommendations of *Global Health 2035*. It has 3 sub-sections:

- Section 4.1 discusses a set of overarching policy considerations in channeling Swedish development assistance for health in the post-2015 era
- Section 4.2 proposes a series of investment opportunities for Swedish health aid from 2015-2035, directed at global, "glocal," and local functions
- Section 4.3 briefly suggests a number of areas that would benefit from further analysis.

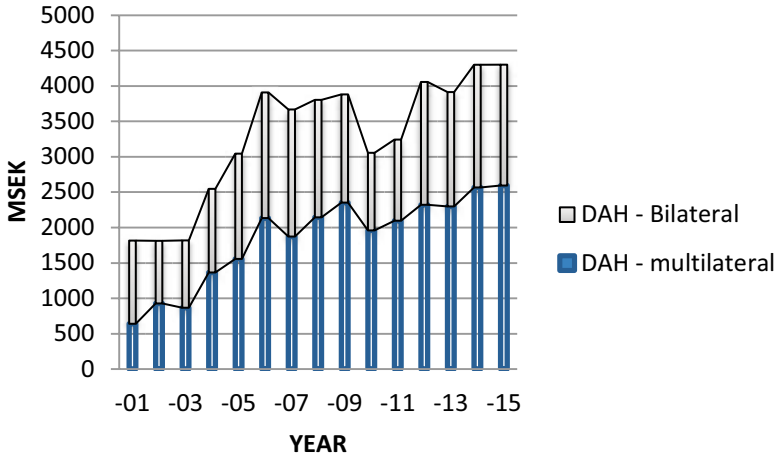
# Section 2: Sweden's development assistance for global health: Support for global versus local functions

In this section, we analyze Sweden's multilateral and bilateral development assistance for health, we attempt to estimate what proportion of this assistance is channeled to global, local, and "glocal" functions, and we compare this proportion against the health spending of other major donors to global health. The purpose of Section 2 is to establish a "baseline" on the current donor spending by a group of major bilateral and multilateral donors, from which, later in the report, we offer suggestions for how such development assistance for health might be usefully realigned to meet *Global Health 2035* goals.

## 2.1. Overview of Swedish development assistance for health

Since the turn of the millennium, Swedish development assistance for health has grown significantly. Calculations from a portfolio analysis of Swedish development assistance for health conducted by the Ministry of Foreign Affairs show that development assistance for health rose from 1.8 billion SEK in 2001 to about 4 billion SEK in 2013. This represents about 13 per cent of total Swedish development assistance. Swedish development assistance for health is expected to continue to grow in the coming two years according to projections by the government (based on forecasts and the 2014 budget bill), reaching 4.3 billion SEK in 2014 and 2015 (Figure 4). The government estimates that Swedish development assistance for health is directed mainly to health service delivery (about 60 per cent of total resources), capacity development (30 per cent) and policy dialogue (10 per cent). In the portfolio analysis of Swedish development assistance for health, progress in these three domains was reviewed. According to the findings, impact can most easily be measured in the service delivery area while results in capacity development and even more in policy dialogue are less readily available.[11]

**Figure 4. Swedish multilateral and bilateral development assistance for health 2001-2015.**




Numbers for 2001-2013 are actual payments while 2014-15 are projections. MSEK: Million SEK. (Source: Swedish Ministry for Foreign Affairs)

## 2.2 Sweden's multilateral development assistance for health

Most Swedish development assistance for health is channeled through multilateral institutions. The largest increases in multilateral funding in recent years were in Sweden's contributions to the Global Fund and the GAVI Alliance ("GAVI"). By 2013, Sweden gave over 1 billion SEK to these two organizations, or about 25 per cent of total Swedish development assistance for health (Table 5).

**Table 5. Swedish multilateral and bilateral development assistance for health, 2010-2015 (million SEK, nominal terms)***

| Multilateral | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 |
|---|---|---|---|---|---|---|
| WHO | 27 | 28 | 34 | 30 | 30 | 30 |
| UNFPA | 423 | 445 | 445 | 428 | 485 | 485 |
| UNICEF[a] | 278 | 283 | 283 | 274 | 325 | 325 |
| UNAIDS | 266 | 266 | 266 | 245 | 230 | 230 |
| Global Fund | 500 | 600 | 700 | 700 | 800 | 850 |
| GAVI | 250 | 250 | 375 | 368 | 450 | 450 |
| European Commission[b] | 83 | 63 | 65 | 67 | 70 | 70 |
| Development Banks[c] | 129 | 158 | 150 | 150 | 150 | 150 |
| **Total multilateral DAH** | **1,956** | **2,093** | **2,318** | **2,262** | **2,540** | **2,590** |
| **Total bilateral** | **1,096** | **1,146** | **1,735** | **1,501** | **2,079** | **1,567** |
| | | | | | | |
| **Total multilateral + bilateral DAH** | **3,052** | **3,239** | **4,053** | **3,763** | **4,619** | **4,157** |

*Data for 2010-2013 are actual spending; data for 2014 and 2015 are projected

[a] Calculated as 59 per cent of the total Swedish support; [b] Calculated as the relative share of total support dedicated to health;

[c] Calculated as the relative share of total support dedicated to health

We attempted to estimate the proportion of Sweden's multilateral support that is directed towards global, local, and "glocal" functions. Our approach was to search key documents on the websites of the top five multilateral recipients of Swedish development assistance for health (the Global Fund, UNFPA, the GAVI Alliance, UNICEF, and UNAIDS), together with the WHO, to find evidence of the breakdown of each multilateral's disbursements into global, local, and "glocal" functions. The detailed analysis and results are shown in Appendix 4.

We were able to make a judgment on the approximate breakdown of each agency's total spending into global versus local functions, summarized in Table 6. Due to insufficient evidence we were not able to categorize spending for "glocal" functions. Spending on "glocal" functions is however still captured under either global or local functions. We acknowledge that there is considerable uncertainty around these estimates and they should be interpreted as preliminary. This exercise will hopefully prompt debate and perhaps deeper analyses in this area.

**Table 6. Breakdown of multilateral agency spending into global versus local development assistance for health, 2010-2015**

| Multilateral recipient of Swedish DAH | Proportion of multilateral agency spending that is global | Proportion of multi-lateral agency spending that is local |
|---|---|---|
| Global Fund | 20-25% | 75-80% |
| UNFPA | 10-15% | 85-90% |
| GAVI Alliance | 20-25% | 75-80% |
| UNICEF | 3-8% | 92-97% |
| UNAIDS | 35-40% | 55-60% |
| WHO | 62% | 38% |

For the top five multilateral recipients of Sweden's development assistance for health, the institutional proportion of spending on global functions ranges from about 6 per cent (UNICEF, largely engaged in delivery of supportive goods and services to children and mothers) to about 38 per cent (UNAIDS, heavily involved in global advocacy and research that generate global public goods). Based on the breakdowns shown in Table 6, we estimate that 17-22 per cent of Sweden's total contributions to these five multilateral institutions are channeled to global functions. Table 5 shows that the top five multilateral recipients of Sweden's development assistance for health will receive a total of about 13,800 million SEK over the period 2010-2015; thus we estimate that only about 2,300-3,000 million SEK will be devoted to global functions via these five institutions over that time period.

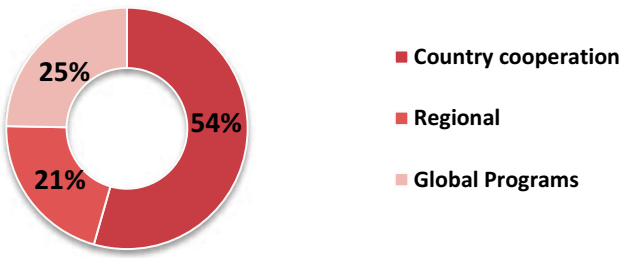
The WHO is set to receive a total of around 180 million SEK from Swedish development assistance for health over the period 2010-2015. How much of this will be directed at global versus local functions? Our analysis (shown in detail in Appendix 4) suggests that about 62 per cent of the WHO's overall expenditures are for global functions. This means that about 110 million SEK out of the 180 million SEK from Swedish health aid will be directed to global functions. The global functions that the WHO supports are headquarters activities; "special programs and collaborative agreements," which include activities undertaken in collaboration with partners (e.g. the WHO Special Program for Research and Training in Tropical Diseases); outbreak crisis and response; and "base programs" that have a regional or global component, e.g. development of medical technologies, leadership, and governance.

We have not analyzed Sweden's multilateral health aid contributions to the European Commission and the Development Banks, but these are unlikely to change the picture of Sweden's multilateral health portfolio being heavily weighted towards local functions. Such a focus on domestic support to individual low-income countries and lower-middle-income countries is consistent with the R4D analysis of development assistance for health over the past two decades, which found that health aid has been predominantly targeted at local rather than global functions.[7]

## 2.3 Sweden's bilateral development assistance for health

Swedish bilateral health aid consists of three main types of cooperation: country support based on country-specific strategies; regional programs; and global programs (Figure 5). The largest share of bilateral health aid, 54 per cent, is for country cooperation. In 2013, country programs received about 880 million SEK, representing just over 20 per cent of total Swedish development assistance for health. The three largest programs were in Zambia, Bangladesh and the Democratic Republic of the Congo (DR Congo).

**Figure 5: Distribution of Swedish bilateral development assistance for health, 2013. Source: Ministry of Foreign Affairs.**



Health made up about 14 per cent of Sweden's support in 2012. **Direct country support for health** accounted for about 17 per cent of total health support in 2012. Below we begin by giving a brief overview of this direct support. Next we discuss the income levels and health needs of the 12 countries that currently receive support. We then project how country income levels are likely to change from 2012 to 2035—such projections allow us to make an informed judgment on which countries are likely to need direct country support by 2035. Lastly, we examine Sweden's direct country support in the context of its support for global programs.

## *Overview of direct country support*

In 2012, Sweden gave country support for health to the 12 countries shown in Table 7. Sub-Saharan African countries received the bulk of the assistance. Total Swedish health support to these countries amounted to about 690 million SEK in 2012, increasing to 880 million SEK in 2013. The Swedish government decides on the choice of countries for bilateral support and the funding levels. Sida provides background materials to the government for these decisions and executes the bilateral programs.

**Table 7: 2012 Swedish development cooperation direct country support for health: 2012-2015 (million SEK)**

| | 2012 | 2013 | 2014 | 2015 |
|---|---|---|---|---|
| South Africa (HIV/AIDS) | 44 | 42 | -- | -- |
| Guatemala | 24 | 9 | -- | -- |
| India | | under "other" | | |
| Sudan | | see Sudan/South Sudan | | |
| Zambia | 90 | 139 | 177 | 210 |
| Bangladesh | 137 | 120 | 125 | 107 |
| Zimbabwe | 21 | 41 | 40 | 40 |
| Sudan/South Sudan | 89 | 100 | 100 | 100 |
| Tanzania (HIV/AIDS) | 60 | 53 | 30 | 30 |
| Uganda | 60 | 83 | 142 | 90 |
| Congo, Dem. Rep. | 69 | 109 | 100 | 100 |
| Somalia | 32 | 40 | 85 | 85 |
| Other | 66 | 95 | 80 | 80 |
| **Total** | **692** | **831** | **879** | **842** |

Source: Swedish Development Cooperation for Health 2012 Summary. September, 2013.

## *Income levels and health needs of 12 countries that currently receive support*

The 12 countries that receive Swedish support include a mix of income levels and health needs. They include 7 low-income countries, the poorest being DR Congo (2012 GNI per capita of 1,430 SEK), 4 lower middle-income and one upper middle-income, (South Africa, 2012 GNI per capita of 49,465 SEK) (see Appendix 5). The countries with the greatest health needs, as measured by the 2012 under-5 mortality rate, include DR Congo, Somalia, and South Sudan which are all countries with mortality rates above 100 per 1000 live births. Guatemala has the lowest child mortality rate at 32 per 1000 live births (Appendix 5).

Sweden plans to phase out support for the two highest income countries on the list (South Africa, Guatemala) and phase in support for Myanmar starting in 2014; this shift will increasingly target bilateral resources on poorer countries with greater health needs, which is supportive of the convergence agenda outlined in Section 1.2 (see key finding (a) in Section 1.2 for a discussion of convergence). In 2012, Bangladesh received the largest amount of Swedish direct country health support, about 20 per cent of the total, although starting in 2013 and going forwards, Zambia is expected to get the largest share of support (Table 7).

The emphasis of Sweden's bilateral assistance in 2012 was on *reproductive health care* (36 per cent), *basic health care* (23 per cent) and *control of sexually transmitted infections including HIV/AIDS* (21 per cent), focus areas that are all in line with achieving a grand convergence in global health around infections and reproductive, maternal, newborn and child health conditions.

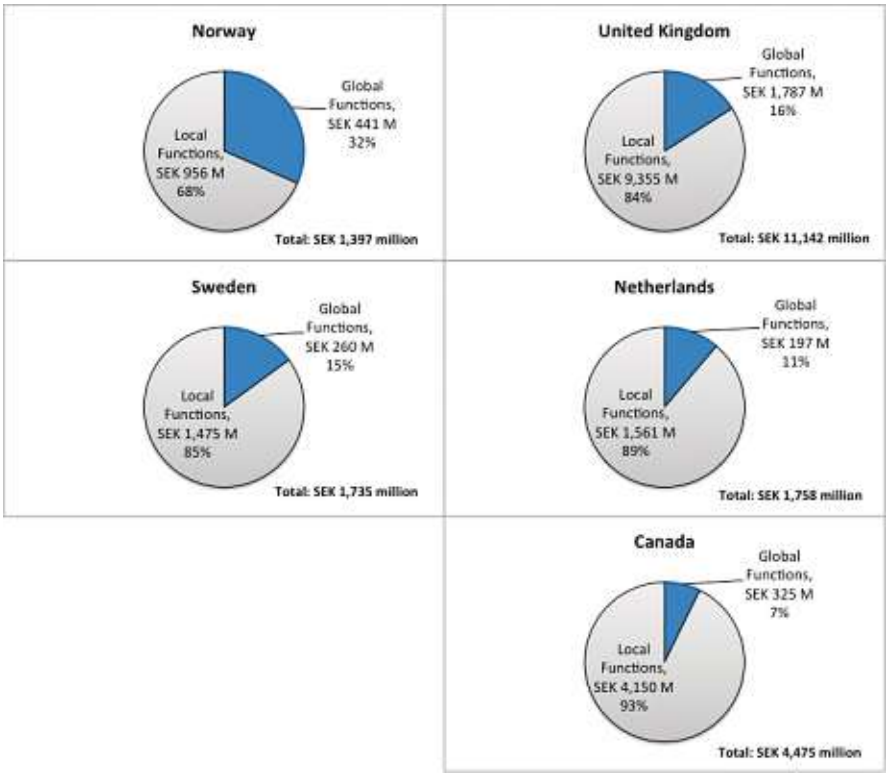
Swedish assistance has a strong focus on fragile states and conflict countries. Four of the twelve countries are fragile/conflict countries: DR Congo, Sudan/South Sudan, and Somalia (note that Guatemala is also categorized as a country "in-conflict/post-conflict" by Sida although it is not included in that category here). Fragile/in-conflict countries also receive support through Sweden's support of the United Nations system. These are difficult countries in which to work, and all have large resource needs.

## *Proportion of bilateral support directed towards global, local, and "glocal" functions*

Just as we did with Sweden's multilateral assistance, we also attempted to estimate the proportion of Sweden's bilateral support that is directed towards global, "glocal" and local functions. However, there were insufficient data to allow us to assess support for "glocal" functions. Thus, support for glocal functions was categorized as either local or global functions. In addition, we attempted to disaggregate the global functions into three major types: provision of global public goods, managing externalities, and strengthening leadership/stewardship. We compared Sweden's bilateral assistance with that of four other donors: the Canada, the Netherlands, Norway, and the UK. Appendix 6 summarizes our methodological approach.

Our analysis is summarized in Figure 6, which shows that **most bilateral assistance supports local functions**. On average, the five donors devote around 16 per cent of their bilateral funding to global functions and about 84 per cent to local functions; the range is between 7 per cent (Canada) and 32 per cent (Norway), with Sweden devoting 15 per cent. As shown in Table 8, for all 5 donors, **the highest proportion of bilateral health ODA devoted to global functions is directed at providing global public goods**, ranging from 44 per cent in Norway to 88 per cent in Canada, with Sweden at 63 per cent. The very high proportion for Canada is due in part to its SEK 224 million disbursement in 2012 to the Development Innovation Fund for Global Health Research; the high proportion for Sweden is also in large part due to its support for R&D. The UK is a major contributor to managing cross-border externalities through its disbursement of SEK 413 million to the Global Polio Eradication Initiative in 2012, but other donors spend only a very small proportion of their bilateral health aid on this global function. The Netherlands and Norway spend about two fifths of their bilateral health aid on leadership/stewardship, and Sweden spends about a quarter, but the other two donors spend under 10 per cent.

**Figure 6. Breakdown of 2012 bilateral health assistance into global versus local.**




OECD Annual Currency Exchange Average, Rate 1 USD = 6.513 SEK.
(Source: own calculations based on OECD CRS data)

**Table 8. Breakdown of 2012 bilateral assistance for global functions into three key types**

| Donor | % of bilateral health ODA devoted to global functions | Amount devoted to global functions, SEK (million) | Breakdown of global functions (%) | | |
|---|---|---|---|---|---|
| | | | GPGs | Managing externalities | Leadership or stewardship |
| Norway | 32 | 441 | 44 | 13 | 43 |
| UK | 16 | 1,787 | 57 | 34 | 9 |
| Sweden | 15 | 260 | 63 | 14 | 23 |
| Netherlands | 11 | 197 | 48 | 7 | 45 |
| Canada | 7 | 325 | 88 | 10 | |

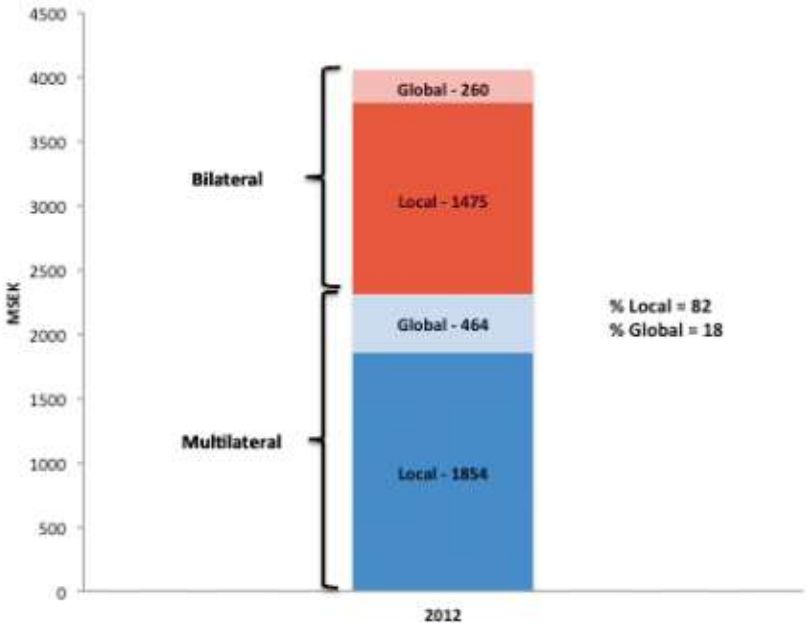
(Source: Own calculations based on OECD creditor reporting system data.)

## 2.4 Summary of the breakdown of Swedish development assistance for health by function

In Sections 2.2 and 2.3, we estimated the breakdown of multilateral health aid and bilateral health aid, respectively, into global versus local functions. We now apply this breakdown to Sweden's overall development assistance for health for the year 2012, as shown in Figure 7. Overall, the share of Swedish development assistance for health that supports global functions is estimated at about 18 per cent.

We were not able to determine how much health aid is directed at "glocal" functions, as there was insufficient detail in the CRS data to allow us to categorize health aid in this way. We note, however, that support that could *potentially* be categorized as "glocal" was present in both the local and the global categories. Further information about our methodological approach to categorizing aid according to function can be found in appendices 4 and 6.

**Figure 7. Breakdown of Sweden's bilateral development assistance for health and multilateral development assistance for health into global and local functions, 2012.**




Source: Ministry of Foreign affairs and own calculations.

## 2.5 Country income projections from 2012 to 2035: which countries might still be most in need of external assistance?

Sweden's development assistance should, according to government policy, focus on low-income countries.[12] Sweden's choice of countries that it will support from today to 2035 is therefore likely to be heavily influenced by the income growth of different countries. To help support the discussions and debates about the changing nature of Swedish country support from now to 2035, we have conducted an income projection analysis. We begin with an analysis of all countries, and then specifically examine the projected economic growth rate of the 12 countries that are the current recipients of Sweden's bilateral development assistance for health.

## *Analysis of all countries worldwide*

For the first projection, the base scenario, we used the following data: the World Bank gross national income (GNI) per capita estimates for 2012 (the base year for our analysis); the IMF real income growth rates from 2013-2019; the assumptions in the *Global Health 2035* report about economic growth from 2020-2035; and UN population projections (medium fertility assumption). We used these data to estimate and compare the distribution of countries across World Bank income classifications in 2012 and 2035. Assumptions about income growth from 2020 to 2035 were based initially on the average projected growth from 2013-2019 and then became increasingly conservative over time. The second (higher growth) scenario uses somewhat less conservative assumptions from 2028-35. These two projections should only be seen as illustrative. Conflict, natural disasters, climate change, future oil and mineral discoveries, technological change, and other factors are difficult to predict and could change this picture in major ways.

There are 214 countries classified into income groups[4] by the World Bank and the most recent classification published in July 2014 uses 2013 GNI per capita:

**High-income countries:** There are 75 countries classified as high-income according to 2012 income data, the base year of our analysis. According to our projections, this number will rise to 94 countries by 2035, and will include China in the base scenario, and 98 in the higher growth scenario. In 2012, high income countries accounted for 18 per cent of the world's population. By 2035, they will account for 40 per cent in the base scenario and 42 per cent in the higher growth scenario. This larger share could potentially constitute a larger source for external assistance.

**Upper-middle-income countries:** There are 55 countries classified as upper middle-income countries in 2012. In 2035, 55 countries are still estimated to be in this category, but the specific

[4] For the most recent income classification, the cut offs are as follows. High income countries: GNI per capita above USD 12,746 in 2013 (81,829 SEK, using the average 2013 exchange rate of 1USD = 6.42 in 2013). Upper middle income countries: GNI per capita between USD 4,125 and USD 12,746 (between 26,482 SEK and 81,229 SEK). Lower middle-income countries: GNI per capita between USD 1,045 and USD 4,125 (between 6,709 SEK and 26,482 SEK). Low income countries: GNI per capita USD 1,045 (6,709 SEK) or below. Each year, as more recent GNI per capita estimates are released, the income classification thresholds are updated in nominal terms to remain constant in real terms.

mixture of countries in this category is likely to change over time. The share of the world's population in this category falls from 34 per cent to 18 per cent in the base scenario and 17 per cent in the higher growth scenario, in part because the largest country in the world, China, moves from the upper middle-income category to the high income category over the time period 2012-2035. Upper-middle-income countries are not expected to require external assistance in 2035. Most countries in this category are expected to experience large income growth over the period 2012-2035.

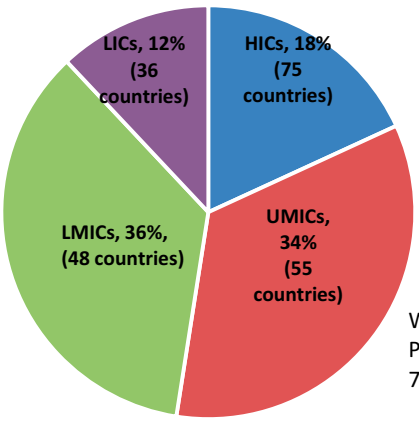
**Lower-middle-income countries:** There are 48 countries classified as lower-middle-income in 2012, making up 36 per cent of the world's population. By 2035, in the base scenario, the total number of countries in this category is estimated at 43 (with 32 per cent of the world's population); in the higher growth scenario, there will be an estimated 45 countries in this category (with 33 per cent of the world's population). The largest country in this category, India, remains in this category during this time period; in the base scenario, its income per capita grows subtantially in real terms, from 9,900 SEK per capita in 2012 to about 18,500 SEK in 2035 (based on the current exchange rate, 1USD = 6.86 SEK). In general, the countries in this category experience significant income growth, with many moving from low-income coutnry to lower-middle-income country status over the period.

**Low-income countries:** Low income countries are most in need of external assistance on a per capita basis. The number of countries in this category falls by about one-third from 2012 to 2035 according to our projections, from 36 to 18-22, depending on the base or higher growth scenario. But in part because of high fertility rates in many of the countries, the share of the world's population in the low-income category falls by a smaller share, from 12 per cent to about 8-10 per cent, depending on the economic growth scenario.

Figures 8 and 9 summarize these shifts in the income categories (9a and 9b represent the base and the higher growth scenarios, respectively). Table 9 summarizes the list of countries that are projected to remain of low-income status by 2035 and indicates how the projected total fertility rate change over the period. With the exceptions of the Democratic Republic of Korea and Myanmar, which have relatively low fertility across the entire period, several countries have very high fertility, even by 2035, and large population growth. Niger is the most extreme example. Its total fertility rate is estimated

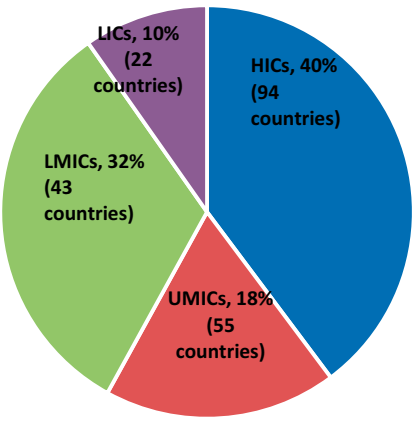
at 7.6 in the period 2010-15, and is projected at 6.4 over the period 2030-35. Its population, estimated at 17 million in 2012, is projected to grow to 42 million in 2035.

**Figure 8. Proportion of World Population in Different Income Categories, 2012**



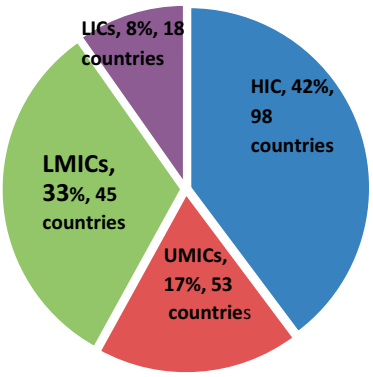

World Population: 7.054 billion

**Figure 9a. Projected Proportion of World Population in different Income Categories, 2035, Lower Growth Scenario**




Projected world population: 8.716 billion 214 countries

**Figure 9b. Projected Proportion of World Population in different Income Categories, Medium Growth Scenario, 2035**




World Population: 8.716 billion, 214 countries

**Table 9. Projected total fertility rates (TFR), 2010-15 and 2030-35, for countries projected to still be low income in 2035**

| | TFR | | Total Population ('000) | |
|---|---|---|---|---|
| | 2010-2015 | 2030-2035 | 2012 | 2035 |
| World | 2.5 | 2.3 | 7,053,900 | 8,716,500 |
| Afghanistan | 5.0 | 2.5 | 29,800 | 47,300 |
| Burundi | 6.1 | 4.5 | 9,900 | 18,600 |
| Central African Republic | 4.4 | 3.0 | 4,500 | 6,900 |
| Chad | 6.3 | 4.3 | 12,400 | 23,800 |
| DRC | 6.0 | 4.1 | 65,700 | 116,000 |
| Eritrea | 4.7 | 3.2 | 6,100 | 10,900 |
| Ethiopia | 4.6 | 2.9 | 91,700 | 150,700 |
| Gambia | 5.8 | 4.5 | 1,800 | 3,500 |
| Guinea | 5.0 | 3.5 | 11,500 | 19,100 |
| Guinea-Bissau | 5.0 | 3.8 | 1,700 | 2,700 |
| Korea DPR | 2.0 | 1.9 | 24,800 | 27,000 |
| Liberia | 4.8 | 3.6 | 4,200 | 7,100 |
| Madagascar | 4.5 | 3.5 | 22,300 | 40,500 |
| Malawi | 5.4 | 4.1 | 15,900 | 29,400 |
| Mali | 6.9 | 5.5 | 14,900 | 30,200 |
| Myanmar | 2.0 | 1.7 | 52,800 | 59,300 |
| Niger | 7.6 | 6.4 | 17,200 | 41,600 |
| Somalia | 6.6 | 4.7 | 10,200 | 19,200 |
| Togo | 4.7 | 3.5 | 6,600 | 11,100 |
| Uganda | 5.9 | 4.2 | 36,300 | 72,700 |
| Tanzania | 5.2 | 4.0 | 47,800 | 90,500 |
| Zimbabwe | 3.5 | 2.6 | 13,700 | 21,800 |

Source: World population prospects, accessed June 14, 2014, medium variant. http://esa.un.org/wpp

## *Projected economic growth rate of countries currently receiving Swedish bilateral development assistance for health*

Table 10 summarizes our projections of the economic growth of 11 of the countries currently supported by Swedish health aid.[5] Note that for this one table, we updated estimates to the World Bank's latest GNI per capita information (2013); projections are in constant 2013 USD. As shown, the 11 countries are all expected to experience economic growth from 2013 to 2035. Growth is projected to be particularly strong for Bangladesh, DR Congo, India, South Sudan, Tanzania, and Uganda. Over this period, South Africa is set to remain in the upper middle-income country category but its income is projected to grow from USD 7,190 per capita (46,160 SEK per capita., using the average 2013 exchange rate of 1 USD = 6.42 in 2013) to about USD 11,900 per capita in real terms (76,400 SEK, using the rate of 1 USD = 6.42). Two of the 11 countries—DR Congo and Uganda—are projected to remain in the low-income-country category from 2013 to 2035 but their income is expected to grow significantly within that category. Bangladesh, Tanzania, and Zimbabwe are expected to transition from low-income to middle-income countries and Guatemala is projected to transition from a lower middle-income to an upper middle-income country. As the analysis is in constant USD 2013, the most recent World Bank income categorization is used to classify countries (see footnote 4 on page 46 for details of this classification).

[5] There is no reliable income statistics for Somalia. The country is, however, estimated to be a low-income country, i.e. having a GNI per capita < USD 1,045.

**Table 10. GNI per capita growth from 2013 to 2035, 11 partner countries, base scenario (2013 USD)**

| | 2013 GNI p.c. and Projected GNI p.c. (2013 US$) | | | | Income Classification | | |
|---|---|---|---|---|---|---|---|
| | 2013 | 2020 | 2035 | Growth Rate | 2013 | 2020 | 2035 |
| Bangladesh | 900 | 1310 | 2390 | 4.5% | LIC | LMIC | LMIC |
| DR Congo | 400 | 550 | 810 | 3.3% | LIC | LIC | LIC |
| Guatemala | 3340 | 3590 | 4440 | 1.3% | LMIC | LMIC | UMIC |
| India | 1570 | 2240 | 4040 | 4.4% | LMIC | LMIC | LMIC |
| South Africa | 7190 | 8400 | 11900 | 2.3% | UMIC | UMIC | UMIC |
| South Sudan | 1120 | 1670 | 2730 | 4.1% | LMIC | LMIC | LMIC |
| Sudan | 1130 | 1330 | 1850 | 2.3% | LMIC | LMIC | LMIC |
| Tanzania | 630 | 830 | 1140 | 2.7% | LIC | LIC | LMIC |
| Uganda | 510 | 650 | 880 | 2.5% | LIC | LIC | LIC |
| Zambia | 1480 | 1850 | 2390 | 2.2% | LMIC | LMIC | LMIC |
| Zimbabwe | 820 | 910 | 1310 | 2.2% | LIC | LIC | LMIC |

## *Suggested "cut-offs" for graduation from development assistance for health*

While a comprehensive review and analysis of different ways to set the eligibility cut-off for development assistance for health goes beyond the scope of this report, here we briefly summarize some of the key development assistance for health eligibility "rules" that are used by donors as well as examples of criteria used for allocation of development assistance for health.

**Eligibility for health aid** is generally based on *need*,[13] typically defined by being below a threshold level of GNI per capita or by using health-based criteria such as burden of disease or under-5 mortality rate. For example, eligibility for funding from the World Bank's International Development Association (IDA) is based on a GNI per capita below a certain threshold, annually updated, which is USD 1,205 for fiscal year 2014, and lack of creditworthiness to borrow on market terms.[14] To be eligible for development assistance for health from UNICEF, countries must have a GNI per capita below that of high-income countries (i.e. below a GNI per capita of USD 12,746).

In addition to eligibility or need, **allocation** is generally based on *aid effectiveness criteria* or *cross-cutting criteria*:

*Aid effectiveness criteria:* Development assistance for health is often allocated based on where aid will most effectively be used. Such allocation is rarely based on specific metrics of effectiveness, but rather on factors such as how the country has used health aid in the past. For example, the allocation formula used by the Global Fund

takes into account a country's past performance in using Global Fund financing.

*Cross-cutting criteria:* Allocation of development assistance for health is also based on a variety of factors that cut across the eligibility (or need) and effectiveness criteria, such as a country's population size, policy environment, governance, and absorptive capacity. For example, UNDP uses an allocation formula based on a combination of GNI per capita and population size. The Word Bank's IDA allocation incorporates country scoring on country policy and institutional assessment indicators such that countries with better rankings get more IDA resources, all things being equal.

Many donors have recently revised, or are in the process of revising, their needs-based criteria. Bilateral donors have been closely watching these changes, as they are considering adopting their own rules for graduation from bilateral health aid. Two recent examples of policy revisions are those of the GAVI Alliance (GAVI) and the European Union (EU).

*GAVI:* the initial threshold for eligibility when GAVI launched in 2000 was an annual GNI per capita of up to USD 1,000. A revised eligibility policy came into effect in 2011, in which eligibility thresholds are updated annually for inflation adjustments. For 2014, the "cut-off" for GAVI support was set at USD 1,570. Countries that were previously eligible for GAVI support still receive some form of support, in the form of reduced prices, during and after the graduation process. 15 GAVI is currently reviewing its eligibility policy.

*EU:* the EU recently adopted a new "differentiated" approach to development assistance for the period 2014-2020, called the Agenda for Change, which phases out or reduces assistance to certain middle-income countries.16 The EU has two main funding streams: the Development Cooperation Instrument (DCI), which covers South Africa, Latin America and Asia, and the European Development Fund (EDF), covering the rest of Africa, Caribbean and the Pacific. Under the DCI, the EU proposes that in 2014, "17 upper middle-income Countries (Argentina, Brazil, Chile, China, Colombia, Costa Rica, Ecuador, Kazakhstan, Iran, Malaysia, Maldives, Mexico, Panama, Peru, Thailand, Venezuela and Uruguay) and 2 large lower middle-income whose GDP is larger than 1 per cent of global GDP (India, Indonesia) graduate to new partnerships that are not based on bilateral aid."17 According to this differentiated approach these countries will no

longer be eligible for bilateral aid. However, they may still be for aid through other channels.

If GAVI's cut-off were to remain at USD 1,570 by 2035, and if Sweden were to follow GAVI's graduation threshold, we estimate that only 4 of the 12 countries currently supported by Sweden would still be eligible for Swedish health aid by 2035 (DR Congo, Tanzania, Uganda, Zimbabwe).

However, many development agencies, economists, policy think tanks, and global health researchers have expressed concern about using simple graduation "cut-offs" based solely on GNI per capita. For example, a recent analysis by the Overseas Development Institute (ODI) and UNDP, called *Where Next for Aid? The Post-2015 Opportunity*,[18] criticizes the use of simple eligibility thresholds. The ODI/UNDP analysts note that countries with similar GNI pc (e.g. Iraq and the Maldives) face very different development challenges and vulnerabilities. They argue that graduation rules should go beyond GNI pc to also take into account domestic resource mobilization capacities (defined as "domestic savings, tax revenues, the fiscal deficit, bank credit and gross fixed capital formation"), as well as economic and environmental vulnerabilities (as measured by tools such as the Environmental Vulnerability Index and Human Development Index).

Similarly, a forthcoming Chatham House working paper by Ottersen and colleagues (2014) argues that while GNI pc should certainly be one criterion for determining when middle-income countries could graduate, it should also be balanced by consideration of health needs (e.g. defined by under-five mortality rate).[13] The authors argue that GNI per capita is a valuable starting point, since higher GNI per capita generally indicates greater ability to finance health services domestically, and then they distinguish between "high effort" and "low effort" low-income countries/middle-income countries, determined by the ratio of government health expenditure to GNI. They estimate "lower capacity" and "upper capacity" thresholds for development assistance for health eligibility in the following stepwise manner:

The minimum total health expenditure per capita needed to finance a basic set of health services in low-income countries is estimated to be about USD 86 (in 2012 terms).

When countries are ranked according to their level of government health expenditure, from highest to lowest, large difference were observed. The upper centile ratio of government health expenditure to GNI in low- and middle-income countries was 6.5 per cent in 2011 and the lowest centile ratio was 1.6 per cent.

Based on the levels of government health expenditure, a lower capacity threshold can be determined for the highest effort (i.e. the ratio of 6.5 per cent); at this high level of government health expenditure, the minimum GNI per capita required to provide the basic health service package is USD 1,323 in 2011 terms (i.e., USD 86/6.5 per cent = USD 1,323). Thus, there are good reasons to consider all countries below this level of GNI per capita as being eligible for development assistance for health.

In a similar fashion, an upper capacity threshold can be determined based on the lowest effort (i.e. the ratio of 1.6 per cent); at such a low level of government health expenditure in relation to GNI, the minimum GNI per capita required to provide the basic health service package is USD 5,375 in 2011 terms (i.e., USD 86/1.6 per cent.) Here the authors argue that there can be good reasons to consider countries above this threshold as being ineligible for development assistance for health.

The authors of the working paper argue that these suggested lower and upper capacity thresholds must be combined with consideration of health needs, particularly given the large within-country health inequities in middle-income countries.

## *Swedish direct country support in the context of its support for global programs*

Sweden supports direct country programs but also channels its assistance to multilateral funding programs such as the Global Fund, GAVI, and the World Bank's IDA. There is considerable overlap between Sweden's direct country support and eligibility for major global health programs, which is not surprising (Appendices 5 and 7). All of the countries where Sweden provided direct country support in 2012 are also eligible for Global Fund support. Guatemala is likely to be the first to graduate from Global Fund support, and as mentioned above, Sweden's direct support to Guatemala is also ending. Ten of the 12 countries are eligible for GAVI support (Guatemala and South

Africa are GAVI-ineligible, and Sweden's health support is also ending there). Eight of the ten are theoretically eligible for the World Bank's highly concessional IDA support, but Sudan and Somalia are inactive because of protracted arrears and India is now in the process of graduating from IDA. India's direct country support from Sweden is relatively small, appearing under "other" in Table 7, and is focused on "partner driven cooperation."[19] Ten of the 12 countries are receiving support from the President' emergency plan for aids relief (Somalia and Sudan are not).

## *Implications of the economic growth projections for Sweden's bilateral development assistance for health*

Sweden has, perhaps more than many bilateral donors, shown an ability to end large programs in specific countries in order to shift its support to where it might be most needed or better used. For example, Sweden has ended or will end support to Guatemala and South Africa, the two highest income countries in its portfolio, and is initiating support in Myanmar.

On current medium term growth projections, countries that could be among the poorest in 2035 are listed in Table 9. This list should be seen as illustrative, given the inherent difficulties in projecting income growth over a more than twenty-year period. Some of these countries, such as DR Congo and Uganda, are already receiving bilateral support from Sweden. Sweden could continue to sharply focus its bilateral aid on the poorest countries, balancing that objective against other factors, such as targeting to well-governed countries. Such an approach would be well aligned with the Center for Global Development's indicators of good aid quality.[20]

# Section 3: Global health challenges and opportunities to 2035

In this third section of the report, we begin in Section 3.1 with a brief summary of the five key global health challenges that the *Global Health 2035* report suggests will be the most important in the post-2015 era. In order to explore how Sweden's global aid activities could align with these challenges, in Section 3.2 we give an assessment of Sweden's current impacts and strengths in global health and in Section 3.3 we estimate the likely trajectory of Swedish development assistance for health to 2035 under different development assistance for health growth scenarios. In the final section (Section 4), we will go on to link the challenges/opportunities mentioned in 3.1 to the strengths of Sweden's development assistance for health laid out in 3.2 and the additional Swedish development assistance for health that may be available.

## 3.1 Challenges and opportunities in the post-2015 era for international collective action

The *Global Health 2035* report, summarized in Section 1, is the starting point for our recommendations for Sweden's future development assistance for health. Below, we briefly lay out the key global health challenges identified in *Global Health 2035* that are likely to be dominant and require focused action in the two decades beyond 2015. These challenges are structured around the five key findings of the report (see Section 1.2 for the five key findings, listed as 1.2(a) to 1.2 (e)).

### *Challenges related to the convergence agenda (see sections 1.2(a), 1.2(b))*

**The ongoing high burden of infections and reproductive, maternal, newborn and child health conditions** (the convergence agenda, discussed in 1.2(a), 1.2(b), is aimed at tackling this challenge). A huge burden of preventable infectious, maternal and child deaths persists in low-income countries and lower-middle-income countries; indeed, these causes of death are still the predominant cause of mortality in

low-income countries (Figure 10). The health MDGs—MDG 4, 5 and 6, which cover child health (MDG 4), maternal health (MDG 5), and HIV/AIDS, tuberculosis, and malaria (MDG 6)—will not be met by 2015. Therefore "finishing the health MDGs"—that is, tackling infectious, maternal, and child mortality (the convergence agenda)—will be a crucial post-2015 priority. At the 69th Session of the UN General Assembly in September 2014, the World Bank announced a new Global Financing Facility for Every Woman and Every Child, aimed at mobilizing resources to finish the MDG 4/5 agenda.[21] One intervention that has received too little funding, and that is central to achieving convergence, is the scale-up of modern effective contraception. A big push is needed to expand access to family planning services; the July 2012 London Summit on Family Planning led to a global strategy to try and reach 120 million additional users of effective contraception by 2020 (the "120 by 20" goal).[22] Brown and colleagues estimate that the price tag to reach this 120 by 20 goal would be USD 4.3 billion, and achieving the goal would avert an estimated 116 million unwanted pregnancies, 52 million abortions, 212,000 maternal deaths, and 2.8 million infant deaths over the next 8 years.[22] There will also need to be a rise in financing for R&D for new medicines, vaccines, and diagnostics to tackle infectious, maternal, and child deaths in low-income-countries and middle-income countries.[1]

## *Challenges related to the shift in development assistance for health towards global functions, especially providing global public goods and managing cross-border externalities (see Section 1.2 (c))*

**Microbial evolution, especially the threat of a new influenza pandemic and of antimicrobial resistance**. There is deepening international concern that the world may soon face a very deadly flu pandemic, similar to the 1918 pandemic.[23] New pandemic control methods are needed, such as a universal vaccine and national and strengthened international surveillance systems. The rise of antimicrobial resistance, described by England's chief medical officer as an "apocalyptic threat" similar in magnitude to climate change,[24] also warrants global action, including the development of new antimicrobials, vaccines, and point of care diagnostics. As *Global Health 2035* pointed out, common fatal infections are becoming

resistant to first-line antibiotics, the drugs used for decades to treat tuberculosis no longer work in 20 per cent of patients in some countries, and for malaria "just one new drug class—artemisinins—stand between success and failure."[1]

## *Challenges related to NCDs and injuries (see Section 1.2 (d))*

**The global crisis of NCDs and injuries in low and middle income countries (discussed in 1.2 (d)**. Low-income countries and middle-income countries face a sharply rising burden of NCDs, compounded by rising rates of deaths from road traffic injuries. Such injuries are the world's leading cause of death in young people, with the highest death rate among poor populations in sub-Saharan Africa.[25]

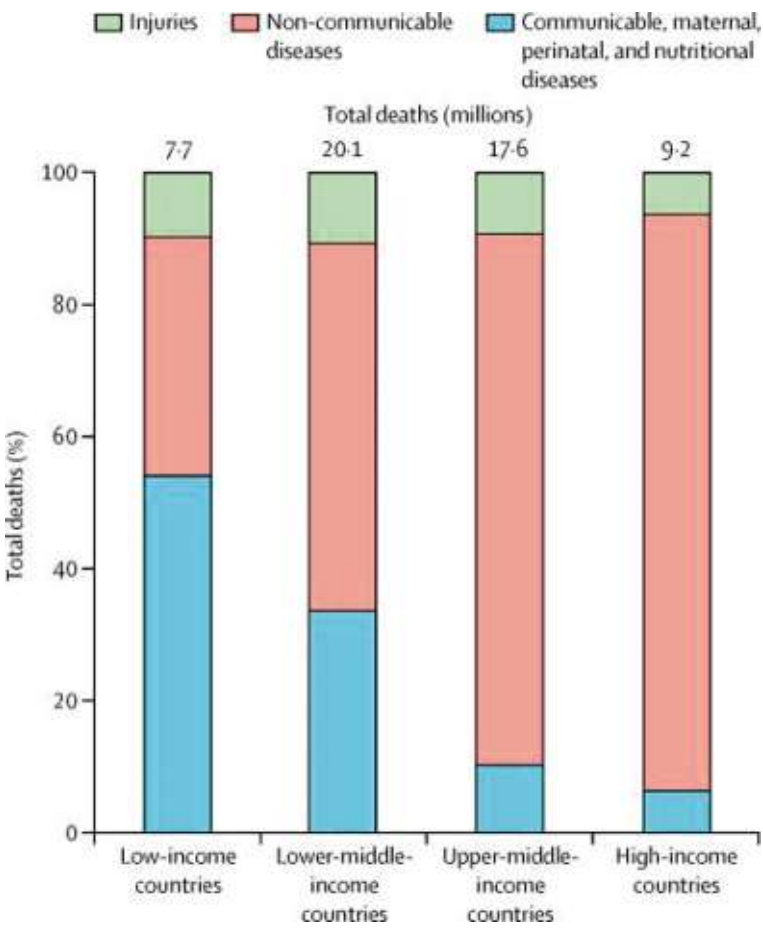
## *Challenges related to medical impoverishment (see Section 1.2 (e))*

**Catastrophic medical expenses pushing households into poverty**. International surveys have found that around 150 million people each year suffer financial catastrophe due to medical expenses, where catastrophe is defined as devoting over 40 per cent of non-food spending to these costs.[26] Kruk and colleagues found that one in four households in low-income countries and middle-income countries sell items or borrow money to pay for health expenses.[27] There is emerging evidence that universal health coverage, particularly if its design is pro-poor from the outset, is an efficient mechanism for offering increased protection against such financial risks as well as offering health protection.[28,29]

## *Cross-cutting challenges related to Section 1.2(a) to 1.2 (e)*

**International collective action arrangements and financing are not "fit for purpose" in dealing with the above challenges**. As previously described, there is inadequate support for provision of global public goods, including R&D; managing cross-border externalities; and providing leadership and stewardship of global health.

**Figure 10. Deaths by broad groups of cause across different income levels, 2011. Data from reference 30.**




## 3.2 Sweden's current and potential impact in global health

### *Focus areas and impacts*

Global health is a core priority for Swedish development assistance.[31] Sweden is an active, visible, and influential donor within the global health landscape. This priority is manifested by, for example, Sweden having a Global Health Ambassador, who represents Sweden in its

exchange with international health organizations.[31] Sweden also co-hosted the Thematic Consultation on Health in the Post 2015 Development Agenda (http://www.worldwewant2015.org/health). Sweden has gained a reputation for impact in global health in the areas of sexual and reproductive health and rights (including provision of contraception and safe abortion services), midwifery, and tackling antibiotic resistance. It is also recognized for its domestic efforts in tackling NCDs and injuries (including through road traffic safety). These strengths are discussed further below.

The emphasis of Sweden's bilateral assistance for health in 2012 was on **reproductive health care** (36 per cent), **basic health care** (23 per cent) and **STD control including HIV/AIDS** (21 per cent). In reproductive health care, Sweden brings its own experience at reducing high maternal mortality rates through the development of **skilled delivery care from midwives**. Midwives in Sweden play a central role in maternal health care. Sweden provides major support to UNFPA (see Table 5) that is primarily for midwifery; Cambodia, Zambia, and Ethiopia have been major recipients of this support. Sweden also brings a perspective on **sexual and reproductive health and rights** (SRHR) to maternal health care and gender equality that is distinct and perhaps more outspoken than many other donors. In Bangladesh, support is targeted to menstrual regulation services (safe abortions), through the government's Health, Nutrition, and Population Sector Programme, and under that program, the Comprehensive Reproductive and Sexual Health Program. In Tanzania and South Africa, the focus is primarily on HIV/AIDS. Thus Sweden is supporting areas that are crucial for achieving a "grand convergence" around infections and RMNCH conditions.

Furthermore, Sweden was the first country to adopt a "whole of government approach" by introducing **a policy for global development that cuts across multiple policy areas with the aim of promoting policy coherence**. The policy, adopted by the Swedish Riksdag in 2003,[32] considers the impact of both domestic and EU policies on developing countries. This policy, in place since 2008, focuses on six global challenges, one of which is "communicable diseases and other health threats" (the other five are oppression, economic exclusion, climate change and environmental impact, and conflict and fragile situations). The policy recognizes that the main responsibility for the health of a country's population lies with national governments, while at the same time acknowledging that in

an increasingly globalized world, national efforts must be integrated with international collective actions. Antibiotic resistance and the global spread of communicable diseases, including emerging pandemics, are listed as specific examples of such global efforts in the policy. Thus, there seems to be strong political commitment to these issues in the Swedish parliament.[33] In 2010, the government issued a report on the impact of Sweden's global development policy on the six global challenges.[34] It concluded that the "coherence policy" had led to a number of positive impacts on communicable diseases and other health threats, including:

- Showing global leadership in fighting antibiotic resistance (e.g. organizing an EU conference on antibiotics, supporting the ReAct network)
- Deepening its cooperation with India and China (e.g. "through cooperation agreements on infection control and IT in health care services"); Sweden is cooperating with China and with several countries in the Baltic Sea region on tackling antibiotic resistance
- Supporting the Global Fund and UNAIDS, and contributing "very substantially" to a greater rights perspective in international HIV/AIDS control efforts
- Being active in HIV vaccine development efforts (through the Public Health Agency of Sweden)
- Financing the Centre for Global Health Research at Umeå University (funding is through the Swedish Research Council for Health, Working Life and Welfare).

Sweden has a strong reputation in its **support for research on infectious diseases that disproportionately affect low-income countries and middle-income countries**. As discussed in greater detail in Appendix 8, most funding for such research comes from four sources: Sida, the Swedish National Research Council, the Swedish Foundation for Strategic Research, and the Swedish Heart Lung Foundation. The overall funding level, however, remains relatively small—about 200 million SEK annually. Sida supports the Global Health Investment Fund (http://ghif.com/), which invests in developing vaccines against HIV, TB, malaria, cholera, and diarrhea. In addition, Centres for Global Health Research such as those at Karolinska Institutet and Umeå University have internationally strong research agendas conducting studies on topics such as **inequalities in**

**health, burden of disease, and translational research in the context of poverty.**

Sweden has also played an important role in **calling for international action to be targeted towards the growing global crisis of NCDs and injuries**. For example, Sweden supported the UN Global Thematic Consultation on Health and the final report of the consultation had a strong focus on tackling NCDs and injuries, stressing the importance of working across multiple sectors to tackle these problems.[35] Writing in *The Lancet* last year, Sweden's ambassador for global health, Anders Nordström, said that *"it is clear that we are moving from an era focusing mainly on communicable diseases and survival to a time of rapid escalation of non-communicable diseases (NCDs) and the need to put maximum healthy life expectancy at the centre of our work and minds."*[36] Dr Nordström called for ministries of health and international organizations to adopt a new kind of cross-sectoral approach to tackling NCDs that goes beyond the health sector to include other sectors, such as energy, infrastructure, and food. NCDs were included in the 2013 Stockholm Declaration on Global Health, which was the product of a 2013 conference organized by the Swedish Medical Society called *Global Health Beyond 2015* (Box 1).[37]

Sweden has long been internationally acknowledged for its concerted efforts to **limit the use of antibiotics in both health care and in farming**. Through two organizations in particular—the Public Health Agency of Sweden and the Strama network (an advisory network to the Public Health Agency of Sweden on antibiotic and antimicrobial resistance)—the issue has been tackled domestically since the late 1990s. Strama produces information for the public and statistics on antibiotic sales and development of resistance, it commissions studies, and it issues clinical guidelines. These activities have in turn led to a very restrictive attitude towards prescription of antibiotics in Swedish health care. The Public Health Agency also recently showed that sales of antibiotics fell by 8 per cent in 2013, the largest decrease so far in the 21st century.[38] The decrease was attributed to better adherence to treatment guidelines.[38] In a recent article in Sweden's largest daily newspaper, *Dagens Nyheter*, Sweden was ranked the 3rd most restrictive out of 19 countries in the use of antibiotics in meat production.[39] Internationally, Sweden has been one of the most active voices for an increased focus on the issue of antibiotic resistance.[34] Over the last 10 years, ReAct, a global network of

research institutions and NGOs based in Sweden, has addressed antibiotic resistance through various routes, such as promoting the rational use of antibiotics, generating evidence, and promoting innovation.[40] Given that (a) achieving convergence requires a sharp fall in deaths from bacterial, viral, and parasitic infections (including pneumonia, TB, HIV/AIDS, and malaria), and (b) antimicrobial resistance is a problem for many of these infections (e.g. the antibiotics used to treat TB no longer work in 20 per cent of patients),[41] combating resistance is a key concern for achieving convergence. Given its strong research portfolio and active advocacy work, Sweden seems well positioned to take a leading role in moving forward the agenda on antimicrobial resistance. Activities could include increased research funding on resistance and the development of new antibiotics as well as an increased leadership role through international organizations such as the World Health Organization.

Sweden has a worldwide reputation for implementing **successful road traffic safety policies,** some of which could be relevant in low-income countries and middle-income countries, where road traffic safety is a growing concern. Sweden's Vision Zero Initiative (http://www.visionzeroinitiative.com/) road traffic safety policy was started in 1997 and has attracted considerable interest in other high-income countries.[42] The goal of Vision Zero is to reduce road traffic fatalities to zero by 2020. The policy incorporates guidelines for speed limits, whether or not it is possible to separate pedestrian crossings from traffic and the safety of cars on the road. It also incorporates road design safety features. Middle-income countries and low-income countries could draw potential lessons from Sweden's approach. The Swedish International Development Agency (Sida) provided financial support for the World Report on Road Traffic Injury Prevention, demonstrating Sweden's commitment to this issue globally.

**Box 1. The Stockholm Declaration of Global Health. From reference 37.**

To promote social justice globally, and to safeguard the wellbeing of current and future generations, the Stockholm Declaration for Global Health urges governments, the global health community, schools and universities, development agencies, donors, policy makers, research funding agencies, the business sector, and civil society to act urgently on existing evidence in the following areas:

- **Linking ongoing agendas with new agendas:** Ensure that the post-2015 development agenda builds on current MDGs, is universal and incorporates emerging challenges. These include socioeconomic and gender inequalities, non-communicable diseases (such as heart disease, stroke, diabetes, cancer, and chronic respiratory disease), and climate change (including threats to food and water security).
- **Creating stronger leadership and accountability so that health is at the centre of development:** Ensure that health is a high-profile unifying theme in the post-2015 development agenda, positioned to act as a catalyst for human rights and global solidarity; and that appropriate accountability mechanisms and professional leadership for global and national commitments are established.
- **Building capacity and investing in health:** Invest in leadership for global health through education from primary school to university, and enable public empowerment by bringing together networks for inter-sectoral multidisciplinary research and action on global health.
- **Exploiting opportunities and synergies:** Identify and exploit opportunities for applying effective democratic principles to ongoing health agendas (including maternal, child, and mental health), violence, climate change, and other emerging challenges, thus bringing sustainable social, ecological, and economic short-term and long-term returns for both public and private sectors. Pursue synergies such as health and climate co-benefits that bring multiple gains.

## 3.3 Anticipated trajectory of Swedish development assistance for health to 2035

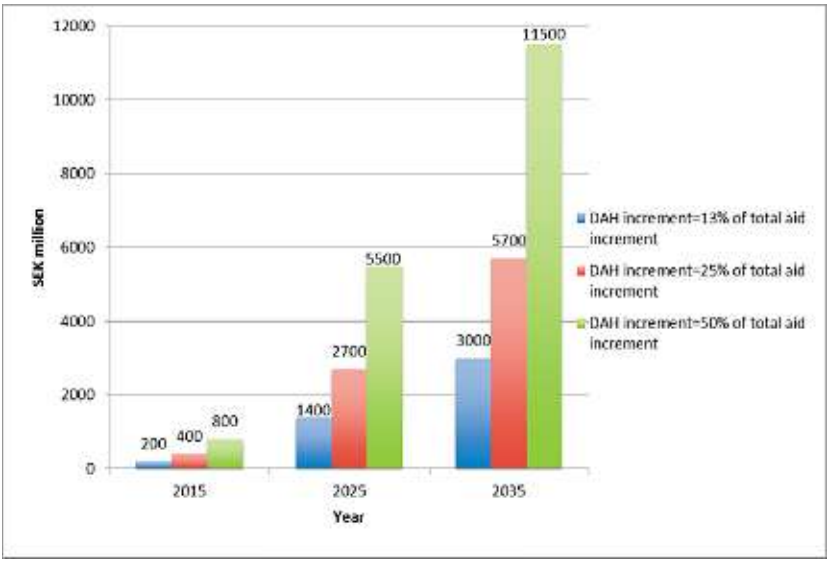
In Figure 11, we estimate the possible growth in Swedish health aid, assuming 2.5 per cent real GDP growth and assuming that the share of GDP devoted to aid remains constant. Our projections include three scenarios:

- The additional development assistance for health (the "development assistance for health increment") remains at 13 per cent of the total aid increment (i.e. health aid remains as it is today, at 13 per cent of total Swedish aid);
- The development assistance for health increment rises to 25 per cent of the total aid increment; or
- The development assistance for health increment rises to 50 per cent of the total aid increment.

As shown, under the most conservative scenario (no change), an additional 3,000 million SEK per year in health aid will be available in 2035 compared to 2013. In the most optimistic scenario, an additional 11,500 million SEK per year would be available. An increase of the development assistance for health increment to 50 per cent of the total aid increment is perhaps overly optimistic, but we argue that there are good arguments for increasing the proportion of total aid that is targeted to development assistance for health. First, health aid has a strong record of exceptional implementation success, as shown for example by the robust association between development assistance for health for scaling up HIV and malaria control tools and reduced mortality from these infections.[43,44] Second, the returns to investing in the health sector have historically been very large—benefit-cost analyses can be around 5-10 or even higher.[1]

In section 4 we discuss how these additional funds could be used to strengthen Sweden's contribution to achieving convergence; pandemic preparedness and tackling antibiotic resistance; curbing NCDs and injuries, reducing medical impoverishment; and improving other global functions such as leadership, stewardship and technical norms. We have not put a price tag on the policy options we present. The calculation of the anticipated health aid trajectory should rather be viewed as an exercise to illustrate how much funds could become available over the next 20 years to give an idea of the potential scope of additional activities.

**Figure 11. Projected increment in Swedish development assistance for health under three scenarios,**




SEK million. The estimates have been rounded. Source: own calculations

# Section 4: Policy options to align Swedish development assistance for health with the recommendations of *Global Health 2035*

In this final section of this report, we apply the lessons and insights from Sections 1, 2, and 3 to considering Swedish development assistance for health in the post-2015 era. In particular, we link the challenges/opportunities that we defined in in Section 3.1 to the strengths of Sweden's development assistance for health laid out in 3.2, spelling out a range of policy options that we believe could help to (a) align Swedish development assistance for health with the goals and targets of *Global Health 2035* and (b) set a "catalytic" example to other bilateral donors.

As we have argued in section 3, Sweden's strengths are well aligned with several of the global health challenges identified by the CIH. Furthermore, our modeling of potential growth of Swedish health aid shows that there is likely to be significant resources available for Sweden to invest in global health and we have presented arguments for why health is a good investment. In the final section below (Section 4), we examine how this additional financing could best be targeted to meet the challenges laid out in section 3.1.

## 4.1 Overarching policy considerations

There are a number of key findings from our analyses in previous sections that have potential implications for the future of Swedish development assistance for health. Our analysis shows that Swedish development assistance for health is currently mainly supporting local functions. In 2012, about 85 per cent of Sweden's bilateral development assistance for health was directed at local functions (1,475 million SEK out of 1,735 million SEK). Similarly, about 78-83 per cent of Sweden's support to five major multilateral financing institutions (the Global Fund, GAVI, UNICEF, UNAIDS, and UNFPA) was channeled to local functions (1,808-1,924 million SEK out of 2,318 million SEK). The inclination towards funding local functions is also true for the bilateral development assistance for

health of the four other donors that we analyzed. Over the years, Sweden has increased its multilateral health aid, in particular its support to Global Fund, GAVI, and UNFPA. However, these organizations also mainly support local functions.

A central argument of the CIH is that there is underinvestment in global functions, and this in turn will be an obstacle to achieving the goal of a grand convergence in global health by 2035. In order to support the convergence agenda as outlined by the CIH, we therefore argue that over time Swedish health aid should focus more on **investment in high priority global functions**. Such a transition will need to occur slowly as sudden shifts would cause disruption to health programs, with adverse consequences. The transition can be achieved by investing incremental health aid in global functions, while also, over time, redirecting health aid that is currently funding local functions in countries that over the coming 20 years will be able to provide these resources by themselves. Below, we propose a number of policy options for consideration and debate by key stakeholders. Table 11 gives a set of overarching principles in considering the channeling of Swedish development assistance for health from now to 2035, which is then followed by a detailed discussion of policy options (summarized in Table 12).

Our aim is not to be prescriptive, but to provide a range of suggested policies that could have a transformative impact in helping to realize the *Global Health 2035* goals. We present recommendations for increased investments to support all three functions discussed in this report: global, local, and "glocal," recognizing that there could be several valid reasons why Sweden would prefer to continue its strong support to local functions, and that there are several countries which will continue to need support for local functions for many years to come. The list of recommendation aims to make use of the particular strengths of Swedish development assistance for health that we have identified, including sexual and reproductive health and rights; provision of contraception and safe abortion services; midwifery; tackling antibiotic resistance; curbing NCDs; and reducing road traffic injuries. While data limitations mean that we were unable to quantify Sweden's current support for "glocal" functions, we believe the "glocal" concept could be very valuable for informing future allocation decisions. Some countries will be graduating from development assistance for health once they reach a certain "threshold" of income, and while they should be able to finance many health sector activities

through domestic sources as their GDP grows, there are likely to be some activities that are hard for them to finance themselves.

We argue that increased investments in global, local or "glocal" functions do not have to come at the expense of existing health assistance, or indeed other aid programs. There can be valid reasons for Sweden to avoid sudden changes to its aid portfolio. Our estimations show that in 2035, there could be at least an additional 3,000 million SEK of development assistance for health available annually (Figure 11); we have thus tried to provide recommendations that can be seen as *complementary* to the existing Swedish health aid portfolio with the aim of speeding up progress to reach the *Global Health 2035* goals.

Several of the recommendations below target areas that have implications beyond the realm of development assistance for health. For example, tackling antibiotic resistance and preparing for a severe influenza pandemic are global concerns for both rich and poor countries and for multiple sectors beyond health. We are aware that financing for such efforts thereby is a responsibility that stretches beyond donor countries' development budgets in general and development assistance for health in particular. However, it is beyond the scope and terms of reference of this analysis to consider the broader financing and responsibility for tackling emerging global health crises.

**Table 11. Potential alignment of Swedish development assistance for health with post-2015 global health challenges: overarching principles**

| | Investment in global functions | Investment in "glocal" functions | Investment in local functions |
|---|---|---|---|
| Policy considerations | ▪ Funding should be directed to global functions that (a) have the greatest potential impact (e.g. R&D) and (b) face a funding shortfall<br><br>▪ Funding should follow from Sweden's particular interests and strengths<br><br>▪ Funding should be directed at institutions or organizations (or specific initiatives or departments within organizations) that have demonstrated their effectiveness | ▪ The fungibility of funding should be analyzed as a criterion for external financing (if the function can easily be funded domestically, it is less likely to warrant DAH)<br><br>▪ Funding should be directed to under-funded "glocal" functions that have the greatest potential impact (e.g. reaching poor, remote communities)<br><br>▪ Funding should be coupled with dialogue to influence policy change. | ▪ Funding should primarily be directed to countries that fall below an agreed eligibility threshold (e.g. based on World Bank income classification or IDA eligibility)<br><br>▪ Funding could be given to countries above this eligibility threshold, but should then be ideally targeted at the poorest, most vulnerable sub-populations<br><br>▪ Dialogue should be initiated to influence countries to focus spending tightly on true priorities |

## 4.2 Investment Opportunities for Swedish development assistance for health, 2015-2035: global, "glocal" and local

We structure our discussion of investment opportunities around the five major post-2015 global health challenges. These opportunities are summarized in Table 12.

**Table 12. Investment opportunities for Swedish development assistance for health to tackle major post-2015 global health challenges**

(following pages)

| Post-2015 Health Challenge | Sweden's Strenght in Tackling the Challgne | Investment Opportunities for Swedish DAH | | |
|---|---|---|---|---|
| | | Global Functions | "Glocal" Functions | Local Functions |
| **1. Achieving a grand convergence around infections and RMNCH conditions** | | | | |
| 1a. Low coverage of evidence-based interventions | Scaling up sexual and reproductive health services, family planning, midwifery, safe abortion, and supporting a "rights perspective" that strengthens scale-up and includes marginalized groups | ▪ Invest in global functions conducted by major multilateral agencies (GFATM, GAVI, UNFPA, UNAIDS, UNICEF), e.g. pooled procurement, market shaping, data collection, research<br>▪ Enhanced support to international NGOs, e.g. IPPF | | |
| 1b. Under-funding of R&D for infections/RMNCH conditions that disproportionately affect LICs/MICs | Support for infectious disease research, including HIV vaccine and microbicide development | ▪ Step up commitments to infectious disease research | ▪ Build national capacity to conduct research on infections and RMNCH conditions that has global value (e.g. on delivery methods for scaling up control tools) | |
| 1c. Under-investment in health by national governments of LICs and MICs | Strong performance in fostering national priority-setting | | | ▪ Initiate a dialogue on focusing increased domestic health spending on high burden infections and RMNCH conditions |

| Post-2015 Health Challenge | Sweden's Strengths in Tackling the Challenge | Investment Opportunities for Swedish DAH | | |
|---|---|---|---|---|
| | | Global Functions | "Glocal" Functions | Local Functions |
| **2. Preparing for the next influenza pandemic and tackling antimicrobial resistance** | International leader in controlling antibiotic resistance domestically and internationally (e.g. through ReAct network); pandemic preparedness is a specific priority in Sweden's global development policy | ▪ Fund coalition of international and Swedish universities, health system providers, and private sector actors to ramp up global surveillance and control of antibiotic resistance<br>▪ Catalyze consortium of donors to build a critical mass of engaged funders<br>▪ Finance global and Swedish R&D on flu drugs, vaccines and diagnostics, and in surge flu vaccine production capacity in Sweden | ▪ Build national capacity on infectious disease surveillance, including surveillance of antimicrobial consumption and resistance, which has benefits that go beyond national boundaries | |
| **3. Curbing NCDs and injuries** | Spends increasing political capital in highlighting crisis of NCDs; international leader in curbing deaths from road injuries | ▪ Global advocacy<br>▪ Support shared learning on NCD and injury control<br>▪ Fund a program of adaptive R&D and pre-qualification of products | ▪ Build national capacity in conducting NCD research with a global value, e.g. on population and economic factors, policies, and delivery methods for scaling up NCD intervention | ▪ Targeted financing to help introduce cost-effective NCD interventions<br>▪ Build national capacity on disease and risk factor surveillance systems |
| **4. Tackling impoverishment from medical expenses** | Sweden co-chaired the Thematic Consultation on Health in the Post 2015 Development Agenda, which advocates strongly for UHC | | ▪ Build national capacity in conducting NCD research with a global value, e.g. on population and economic factors, policies, and delivery methods for scaling up NCD intervention | ▪ Support to national institutions to develop mechanism for revenue mobilization and pooling and for designing benefits package |

| Post-2015 Health Challenge | Sweden's Strengths in Tackling the Challenge | Investment Opportunities for Swedish DAH | | |
|---|---|---|---|---|
| | | Global Functions | "Glocal" Functions | Local Functions |
| **5. Improving other key global functions e.g. leadership, stewardship, technical norms and standards** | Strong global health metrics research agenda<br><br>Historically, Sweden has provided deep backing for WHO, UNAIDS, and other multilateral institutions focused on norms, knowledge, and advocacy | ▪ Funding UN Inter-agency Groups for Child Mortality and Maternal Mortality Estimation<br><br>▪ Fund high quality, competitive work by multilateral bodies on RMNCH, infectious disease, and NCD norms, knowledge generation, and advocacy | | |

## *Challenge 1: Achieving a grand convergence around deaths from infections and reproductive, maternal, newborn and child health conditions*

*Summary of the challenge:* There are three components to this challenge: low coverage of many of the evidence-based interventions that must be scaled up (e.g. modern effective contraception, skilled birth attendance, treatment of childhood pneumonia and diarrhea); insufficient funding for research and development to develop the new medicines, vaccines, diagnostics, and other health tools that are required to achieve convergence; and insufficient domestic financing for health, which will need to grow over the next 20 years to help fund convergence.

*Summary of Sweden's strengths in addressing the challenge:* Scaling up sexual and reproductive health services, family planning, midwifery, safe abortion, and supporting a "rights perspective" that strengthens scale-up and includes marginalized groups; support for R&D for infectious diseases that disproportionately affect low-income countries and middle-income counties, including HIV vaccine and microbicide development.

Investment opportunities:

- **Global functions**: Swedish development assistance for health has recently shifted towards multilateral organizations, but these institutions are primarily funding local functions. There is an important investment opportunity in supporting the global functions carried out by the major multilateral financing agencies (the Global Fund, the GAVI Alliance, UNFPA, UNAIDS, UNICEF) that can help support convergence, such as pooled procurement, market shaping, data collection, research, and advocacy. The Global Fund was recently ranked as the world's most efficient development agency, and warrants continued investment.[20] Sweden's historically strong support to UNFPA, and to international NGOs working on reproductive, maternal, newborn and child health conditions (e.g. the International Planned Parenthood Federation[45]), has played an important role in advancing sexual and reproductive health and rights worldwide; Sweden could help to amplify this role through an enhanced commitment to these organizations. An important opportunity to support convergence is through scaled up investment in large-scale infectious disease research (Sweden is arguably under-investing in

this area; see Appendix 8), particularly the discovery and delivery of new control tools, and in broader global health research.

- **"Glocal" functions**: Sweden could play a key role in building national capacity to conduct research on infections and reproductive, maternal, newborn and child health conditions that have global value. In addition to funding national studies to develop new health tools, it would be valuable for countries supported by Swedish development assistance for health to co-invest in testing and rigorously assessing various approaches to achieving rapid scale up of reproductive, maternal, newborn and child health and infectious disease intervention packages using different platforms (e.g., community health workers, mobile service units, financial incentives). More rigorous national operations research on effective platforms, and the use of the findings to drive better policies and programs, would be a tremendously valuable "glocal" good and would accelerate progress on health outcomes in low-income and fragile countries. Another opportunity is to invest further in supporting local NGOs that promote sexual and reproductive health and rights. The number of "low income" countries per the World Bank's income classifications is expected to shrink considerably on current income projections, but many of these countries have some of the highest fertility rates in the world, so population growth is projected to be high (e.g. Niger, Mali). These countries will need support for reproductive health and more broad-based efforts to increase demand for family planning, including investments in girls' education.

- **Local functions**: Bilateral development assistance for health could support convergence by targeting the countries with the greatest need (and the most vulnerable populations within those countries) and focusing on those interventions that are the most cost effective (these interventions are listed in Appendix 1). Sweden could leverage its strong performance in fostering national priority-setting[14] to initiate a dialogue on focusing increased domestic health spending on high burden infections and RMNCH conditions.

## *Challenge 2: Preparing for the next influenza pandemic and tackling antimicrobial resistance*

*Summary of the challenge:* Current global investment in preparing for the next flu pandemic is not commensurate with the threat (e.g. the WHO's entire influenza budget in 2013 was just USD 7.7 million—less than a third of what the city of New York devotes to preparing for public health emergencies[46]). There is widespread international concern about drug-resistant bacterial infections, artemisinin-resistant malaria, and drug-resistant TB. While there is no single technological fix for antimicrobial resistance, new antibiotics, vaccines, and point-of-care diagnostics will be needed, along with a reduction in both inappropriate use of, and the need for, antibiotics.[1] The challenge is particularly acute in low- and middle-income countries, since the burden of infection is high, and "patients with a resistant infection may be unable to obtain or afford any antibiotic, let alone expensive second line treatments."[47]

*Summary of Sweden's strengths in addressing the challenge*: Sweden's global development policy includes pandemic preparedness as a key priority; Sweden is world-renowned in controlling antibiotic resistance domestically and internationally (e.g. through the ReAct network).

Investment opportunities:

- **Global functions:** The international community is massively under-investing in pandemic influenza preparedness, including improving surveillance systems and developing more effective control tools. Sweden could help to address this gap by financing global and Swedish R&D on flu drugs, vaccines and diagnostics, and in surge flu vaccine production capacity in Sweden either through the public sector or public-private partnerships. The major strength that Sweden has in tackling antibiotic resistance offers the opportunity to step up its involvement in this global crisis, such as by funding a coalition of international and Swedish universities, health system providers, and private sector actors to ramp up global surveillance and control of antibiotic resistance. One potentially useful approach could be for Sweden to catalyze a consortium of donors, including Denmark, the Netherlands, Norway, and Finland, to build a critical mass of engaged funders. Financing for this type of global public good should not be limited to development assistance for health alone, but should come from

other sectors, including the food and agricultural industries and the veterinarian sector.

- **"Glocal" functions:** As with supporting convergence, Sweden could play a key role in building national capacity to conduct surveillance for infectious diseases, including surveillance of antimicrobial consumption and resistance.

## *Challenge 3: Curbing the global rise of NCD and injury mortality and morbidity*

*Summary of the challenge:* In recent years, there has been a rapid shift in the global disease burden away from infectious diseases and towards NCDs and injuries, and age-adjusted rates of some NCDs (e.g. cardiovascular disease) are now higher in low-income countries and middle-income countries than in high-income countries.[48] Economic development and urbanization in low-income countries is associated with a rise in road traffic injury deaths; the highest death rate is in sub-Saharan Africa, where pedestrians and other vulnerable road users are at greatest risk.[1,16] The burden is highest among the poor, who are less likely to have access to emergency injury care.[1,16]

*Summary of Sweden's strengths in addressing the challenge*: Sweden has recently invested major political capital in highlighting the crisis of NCDs and advocating for international collective action on NCD prevention and treatment; it is also an international leader in curbing deaths from road injuries.

Investment opportunities:

- **Global functions:** Sweden could play a continuing leadership role in advocacy for action on NCDs and injuries. It could also play a catalytic role by targeting one or two specific NCDs that have a high burden in low-income countries and lower-middle-income countries and that it has shown success in curbing domestically. For example, Sweden could invest from now to 2035 in a program of (a) adaptive R&D, e.g. research on combining multiple NCD treatments into a single pill taken once daily, which could potentially lower costs and improve adherence, while also simplifying treatment and allowing for greater task shifting[49]; (b) pre-qualification of products adapted for low-income countries and middle-income countries; and (c) shared global learning on

effective control strategies, including for tackling NCD risk factors (e.g. shared learning on tobacco and alcohol taxation policies).

- **"Glocal" functions:** A tremendously valuable "glocal" investment opportunity is to invest in helping to build national capacity across partner countries in conducting research that has global value, such as on the population and economic factors, policies, and delivery methods for scaling up NCD interventions. If the results of such national research were captured in a single open access "hub" of knowledge, the data would coalesce over time into a global evidence base on cost-effective population-wide measures to address NCDs and injuries.
- **Local functions:** In the countries that Sweden supports to 2035, there is an important role for development assistance for health in providing targeted financing to help introduce high impact, highly cost-effective NCD interventions and in helping to build national disease and risk factor surveillance systems.

## *Challenge 4: Tackling impoverishment from medical expenses in low- and lower middle-income countries*

*Summary of the challenge:* Out-of-pocket medical expenses in low-income countries and lower-middle-income countries are a major cause of impoverishment, which in turn hinders household ability to provide for and educate children; 70 per cent of all health care in low-income countries is paid for out of pocket.[50]

*Summary of Sweden's strengths in addressing the challenge*: The final report of the Thematic Consultation on Health in the Post 2015 Development Agenda, co-hosted by Sweden, argued that UHC should be an explicit post-2015 health goal, and stated that: "financial risk protection for everyone is necessary in order to prevent people from being driven into poverty or incurring catastrophic expenses due to the cost of health services."[51]

Investment opportunities:

- **"Glocal" functions:** A valuable "glocal" opportunity for Sweden is to support national policy and implementation research on UHC and financial risk protection (FRP) that generates knowledge that could benefit other countries. The evidence remains limited on key

questions such as how best to scale up UHC, how to provide the greatest amount of FRP for the money invested, how to ensure protection of the poor, and how to monitor and evaluate the "distributional" (equity) and health impacts of efforts to achieve UHC.[52]

- **Local functions:** Swedish bilateral development assistance for health could play an important role in helping individual countries finance national institutions for revenue mobilization and pooling and for designing the benefit package and payment mechanisms.

## *Challenge 5: Improving other key global functions: leadership, stewardship, technical norms and standards (these functions are cross-cutting and relate to convergence, NCDs, injuries, and UHC)*

*Summary of the challenge:* There is relative under-funding of crucial global functions such as setting technical norms, standards, and guidelines; collecting robust data on international health metrics; and providing leadership and stewardship of global health.

*Summary of Sweden's strengths in addressing the challenge*: Sweden's Centres for Global Health Research at Karolinska Institutet and Umeå University have a strong research agenda on international health metrics. Historically, Sweden has shown deep backing for WHO, UNAIDS, and other multilateral institutions focused on norms, knowledge, and advocacy.

Investment opportunities:

- **Global functions:** An important opportunity is to provide increased funding to international working groups on the measurement of child mortality and maternal mortality—the UN Inter-agency Group for Child Mortality Estimation and the UN Inter-agency Group for Maternal Mortality Estimation. These groups are operating on a shoestring budget, greatly hampering their work.
- Another global opportunity for Sweden is to fund high value, high quality, competitive work by multilateral institutions on norms, knowledge generation, and advocacy for RMNCH, infectious diseases, and NCDs.

## 4.3 An agenda for future research

In this report, we have presented an initial policy analysis aimed at providing a suite of policy options for future investments of Swedish development assistance for health. Our approach would benefit from further research in three particular domains:

- We believe that our presentation of development assistance for health by function (rather than disease target or geographical focus) is a valuable framework for considering the future role of development assistance for health, but we acknowledge that the framework requires refinement (in particular, further delineating "glocal" functions).
- In Section 4, we suggested a set of specific global, "glocal" and local priorities, but global health priority setting for the post-2015 agenda will be an evolving area that will require further analysis.
- The future of development assistance for health in the period 2015-2035 remains a subject of much debate. The CIH contributed significantly to estimate the *cost* of convergence, but further analysis is required of the detailed financing mechanisms behind achieving convergence. There is an important role for additional analysis of the best ways in which development assistance for health can support achievement of the post 2015-agenda related to health.

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# Appendix 1. Methodological approach used by the CIH to model a grand convergence in global health

To estimate the costs and impacts of achieving a "grand convergence" in global health by 2035, the CIH began by modeling the aggressive scale up of existing evidence-based interventions that reduce infectious, maternal, and child deaths and control morbidity from neglected tropical diseases.[1] The interventions included in the model were:

- **Reproductive, maternal, newborn, and child health (RMNCH)**: pregnancy-related interventions (antenatal care, treatment of pregnancy complications, delivery interventions, and post-partum care); safe abortion and management of complications; family planning; treatment of childhood pneumonia and diarrhea; immunization; nutrition (breastfeeding and supplementation).
- **HIV/AIDS**: prevention activities (community mobilisation; working with specific groups, such as intravenous drug users and men who have sex with men); management of opportunistic infections; HIV care and treatment; collaborative tuberculosis–HIV treatment.
- **Malaria**: treatment with appropriate drugs for adults, children, pregnant women, and those with severe malaria; indoor residual spraying; long-lasting insecticidal bednets; intermittent presumptive treatment in pregnancy.
- **TB:** diagnosis, care, and treatment of drug-sensitive and multidrug-resistant disease.
- **Neglected tropical diseases (NTDs)**: community-directed interventions to control lymphatic filariasis**,** onchocerciasis, schistosomiasis, trachoma, and soil-transmitted helminths.

The modeling approach combined both "bottom up" (country-based) and "top down" (global) estimation. For the bottom-up analysis, the CIH used a country-based scenario planning software called the OneHealth Tool.[2]

Users of this tool select a specific country, a set of health interventions, a time frame for scaling these up, and a chosen coverage

level that would be achieved by the end of that time period. The OHT then estimates the lives saved by such scale-up, the costs, and the breakdown of these costs (e.g. health worker and clinic time for delivery of the interventions, commodity costs, etc.). The CIH used the OHT to model the impact and costs of scaling up maternal and child health interventions in 34 LICs and 48 lower MICs. Two scenarios were modeled: (1) a **status quo baseline scenario**, which assumes that today's level of intervention coverage remains constant over time, and (2) an **enhanced investment scenario**, in which all countries accelerate the scale-up of interventions to the existing rate in the "best performing" countries of the last decade. At this accelerated rate, countries would reach coverage levels of most interventions of at least 90% by 2035. The results, summarized in Table 2, present the incremental costs and impacts of the enhanced investment versus status quo scenarios.

The RMNCH interventions included in the modelling were based on evidence from a recent systematic review.[3] The HIV interventions were based on those suggested by the Investment Framework Study Group (Schwartländer et al[4]), and they included prevention, behavior change, and creation of a supportive policy environment. The malaria control tools were those suggested by the Roll Back Malaria Taskforce's Global Malaria Action Plan.[5]

For broader health system strengthening (HSS) costs, neglected tropical diseases, and TB, the CIH projections drew on "top down" sources and estimates outside the OHT software:

- The costs and impacts of broad HSS were based on estimates from the Taskforce on Innovative International Financing for Health Systems.6
- For control and elimination of neglected tropical diseases, a separate analysis was conducted by the WHO, the World Bank, and the Ghana Ministry of Health, focusing on five diseases that can be controlled by mass drug administration (see above for the list of diseases).7
- For TB control, the CIH used the OHT to create a starting point that was indicative of the existing TB rates in each LIC and lower MIC and to estimate rates of TB mortality in people with HIV co-infection. A separate "top-down" calculation was made of the

projected overall fall in TB incidence and mortality, based on analyses provided by WHO's Stop TB Department.

Finally, the CIH factored in the effects and costs of scaling up new tools that will become available from now to 2035. Previous research has shown that countries that aggressively adopt new health tools (e.g., medicines, vaccines, and diagnostics) experience an additional 2% per year decline in their child mortality.[8] The CIH thus factored this rate into its modeling, applying an additional 2% year decline to the under-5 mortality rate, the maternal mortality ratio, and the annual number of infections and deaths from HIV/AIDS and TB. For the cost estimates, the CIH assumed that the cost per death prevented by scale-up of new tools (i.e., the programmatic and HSS costs) would be the same as that of scaling-up of existing tools. The costs of the R&D itself were estimated at an additional US$3 billion per year, an estimate taken from the recent analysis of R&D financing needs by the Consultative Expert Working Group on R&D: Financing and Consultation.[9]

## *Assumptions and uncertainties in the modeling*

As with all modeling exercises, the CIH model of convergence has several assumptions and uncertainties. These include:

- Uncertainties in the *true costs of the interventions* included in the model: the costs are derived from the WHO's cost-effectiveness and strategic planning work (WHO-CHOICE; see http://www.who.int/choice/en/), but these may not be accurate or up to date. In addition, costs can change with the scale-up of interventions, and such cost elasticity may not have been fully captured in the model.
- The *aggressive rate of increase in the coverage of these interventions that the model assumes*: even if sufficient funding becomes available, it is unclear whether all countries would have the institutional and absorptive capacity to achieve coverage levels of the magnitude. For example, the model assumes that all LICs and lower MICs could increase coverage rates of pregnant women sleeping under an insecticide-treated net to 100% by 2035.
- The CIH model only includes health sector interventions; it does *not include other sectors that could have an impact on health* (e.g. water and sanitation, climate change).

- The modeling assumed that there would be no new disease threats emerging from now to 2035 to derail scale-up, and that sufficient peace and stability would be present to maintain coverage without backsliding, and that the current interventions (e.g. malaria drugs) would not lose effectiveness in the time period to 2035.
- Lastly, the integrated investment framework laid out in the convergence model assumers that all LICs and lower MICs will support the rights of certain groups (e.g. girls, women, men who have sex with men) who are key to successful scale-up.

# Appendix 2. Breakdown of the costs of achieving convergence

Tables A and B below give the detailed breakdown of the incremental costs of achieving convergence (i.e., over and above current spending) across 34 LICs (table A) and 48 lower MICs (table B). The costs refer to the "enhanced investment scenario" described in Appendix 1 above.

**Table A. Incremental costs of enhanced investment scenario across low-income countries as a group[1]**

| | Incremental costs 2015 (US$ billion) | Incremental costs 2025 (US$ billion) | Incremental costs 2035 (US$ billion) | Incremental costs 2016–25 (US$ billion) | Incremental costs 2026–35 (US$ billion) |
|---|---|---|---|---|---|
| Programmatic investment (scale-up of existing interventions) | | | | | |
| Family planning | <1 | <1 | 1 | 3 | 5 |
| Maternal and neonatal health | <1 | 1 | 1 | 5 | 11 |
| Immunisation | 1 | 1 | <1 | 6 | 4 |
| Treatment of childhood illness | <1 | 1 | <1 | 4 | 4 |
| Malaria | 1 | 2 | 2 | 15 | 19 |
| Tuberculosis | 1 | 1 | 1 | 8 | 7 |
| HIV/AIDS | 1 | 3 | 5 | 22 | 43 |
| Subtotal | 4 | 9 | 10 | 63 | 94 |
| Health system strengthening | | | | | |
| Incremental investment | 17 | 14 | 17 | 150 | 160 |
| Programmatic investment (scale-up of new tools) | | | | | |
| All new tools and interventions | 2 | 2 | 3 | 18 | 22 |
| Total investment | 24 | 24 | 30 | 230 | 270 |
| Ratios | | | | | |
| Cost per death averted (US$) | 11 500 | 4600 | 4100 | 5700 | 4200 |
| Population (millions) | 900 | 1100 | 1250 | 10 300 | 11 900 |
| Incremental cost per person (US$) | 26 | 22 | 24 | 22 | 23 |

## Table B. Incremental costs of enhanced investment scenario across lower middle-income countries as a group[1]

| | Incremental costs 2015 (US$ billion) | Incremental costs 2025 (US$ billion) | Incremental costs 2035 (US$ billion) | Incremental costs 2016–25 (US$ billion) | Incremental costs 2026–35 (US$ billion) |
|---|---|---|---|---|---|
| Programmatic investment (scale-up of existing interventions) | | | | | |
| Family planning | <1 | 1 | 1 | 4 | 7 |
| Maternal and neonatal health | 2 | 5 | 8 | 32 | 68 |
| Immunisation | 1 | 4 | 5 | 28 | 44 |
| Treatment of childhood illness | 1 | 5 | 6 | 33 | 59 |
| Malaria | 4 | 6 | 9 | 51 | 74 |
| Tuberculosis | 2 | 2 | 2 | 17 | 15 |
| HIV/AIDS | 1 | 4 | 7 | 24 | 56 |
| Subtotal | 11 | 27 | 38 | 189 | 323 |
| Health system strengthening | | | | | |
| Incremental investment | 19 | 14 | 16 | 150 | 150 |
| Programmatic investment (scale-up of new tools) | | | | | |
| All new tools and interventions | 4 | 5 | 6 | 40 | 57 |
| Total investment | 33 | 45 | 61 | 380 | 530 |
| Ratios | | | | | |
| Cost per death averted (US$) | 11 100 | 7700 | 8300 | 7800 | 8000 |
| Population (millions) | 2500 | 2800 | 3100 | 27 000 | 29 700 |
| Incremental cost per person (US$) | 13 | 16 | 20 | 14 | 18 |

# Appendix 3. GDP and GDP per capita, estimates for 2011 and projections to 2035, by income category

| | Estimates | Projections | | | | | Annual growth rate |
|---|---|---|---|---|---|---|---|
| GDP per capita | 2011 | 2015 | 2020 | 2025 | 2030 | 2035 | 2011-35 |
| High Income | $ 42 000 | $ 44 000 | $ 49 000 | $ 53 000 | $ 58 000 | $ 62 000 | 1,6% |
| Low Income | $ 600 | $ 700 | $ 870 | $ 1 000 | $ 1 100 | $ 1 100 | 2,7% |
| Lower-Middle | $ 1 900 | $ 2 200 | $ 2 800 | $ 3 500 | $ 3 800 | $ 4 000 | 3,1% |
| Upper-Middle | $ 7 300 | $ 8 900 | $ 12 000 | $ 15 000 | $ 17 000 | $ 19 000 | 3,9% |
| GDP (billions) | | | | | | | |
| High Income | $ 46 000 | $ 49 000 | $ 55 000 | $ 62 000 | $ 68 000 | $ 74 000 | 2,0% |
| Low Income | $ 470 | $ 590 | $ 800 | $ 1 100 | $ 1 300 | $ 1 400 | 4,5% |
| Lower-Middle | $ 4 800 | $ 5 900 | $ 8 000 | $ 10 000 | $ 12 000 | $ 13 000 | 4,3% |
| Upper-Middle | $ 18 000 | $ 23 000 | $ 30 000 | $ 39 000 | $ 45 000 | $ 50 000 | 4,2% |

Data from references 10, 11, and 12. Data notes:

IMF World Economic Outlook April 2013 for GDP projections in real terms 2012-2018. For period 2019-23, annual average from 2012-2018 used. If this average was negative, then a zero growth was assumed. For 2024-26, annual average from 2019-23 was continued, unless it was above 5%, then it was replaced with 5%. For 2027-29, previous annual average used, unless it was 5%, then it was replaced with 3%. For period 2030-35, previous annual average used, unless it was 3%, then it was dropped to 2%.

UN World Population Prospects, 2012 Revision for Population Projections, accessed June 26, 2013. Medium variant.

2011 GDP from World Bank, World Development Indicators, accessed June 26, 2013.

Countries in the income categories are held constant, based on the World Bank's income classifications as of July 1, 2012.

# Appendix 4. Assessment of multilateral agencies' support for global versus local functions

Most of Sweden's contributions to global functions are found in its multilateral assistance. The top five multilateral recipients of Swedish DAH are the Global Fund, UNFPA, GAVI Alliance, UNICEF and UNAIDS (Table C). This appendix examines the activities of those five organizations and provides rationales for approximate estimates of the proportions that constitute global versus local functions. It also examines the activities of the WHO, which does not receive much funding from Sweden (an average of just 30 million SEK annually from 2010-2015, less than 1% of total Swedish DAH).

**Table C. Top 5 multilateral recipients of Swedish DAH (average annual Swedish funding from 2010-2015)**

| Multilateral organization | Ave. annual Swedish funding, million SEK | Percentage of total Swedish DAH |
|---|---|---|
| The Global Fund | 692 | 18% |
| UNFPA | 452 | 12% |
| GAVI Alliance | 357 | 9% |
| UNICEF | 295 | 8% |
| UNAIDS | 251 | 7% |
| **Total** | **2,047** | **54%** |

## *The Global Fund (18% of Swedish DAH)*

The Global Fund for AIDS, Tuberculosis, and Malaria (the Global Fund) was established in 2002 to provide grants to governments and civil society in low- and middle-income countries for prevention, treatment, and care and support of persons affected by the three diseases. Primarily funded by bilateral donors with some additional private sector contributions, the Global Fund is a financing mechanism, designed to mobilize, pool, and distribute funds for programmes rather than to implement programmes itself.

Atun et al. list several of the Global Fund's innovations, which appear to cover mainly local functions.[13] The Global Fund's grants are used for disease control activities in individual countries, mainly local functions of service delivery and improved programme management. The Global Fund's grant portfolio by type of expenditure (Table D) suggests that it plays a strongly supportive role as a global health organization that focuses resources on the poorest countries, and on diseases that are concentrated among the poor. Much of the Global Fund's cumulative disbursements to date have gone to low-income countries – about 50% to West, Central, and East Africa and South Asia. However, two of the Global Fund's largest aid recipients are upper middle income countries (Russia and China, both of which have received $250 million between 2002 and 2012). Other upper middle-income countries (e.g., Brazil, Namibia, Thailand) are among the Global Fund's top recipients.

**Table D. Global fund DAH by type of expenditure, 2002-12**

| Cost category | US$ millions | % total | *Proxy for global |
|---|---|---|---|
| Health products and health equipment | 2,700 | 21.2 | *Local* |
| Medicines and pharmaceutical products | 2,500 | 19.7 | *Local* |
| Human resources | 1,900 | 14.9 | *Local* |
| Training | 1,200 | 9.4 | *Local* |
| Infrastructure and other equipment | 1,000 | 7.9 | *Local* |
| Monitoring and evaluation | 550 | 4.3 | *Global* |
| Living support to clients/target populations | 600 | 4.7 | *Local* |
| Planning and administration | 600 | 4.7 | *Global* |
| Communication materials | 510 | 4.0 | *Global* |
| Procurement and supply management costs | 390 | 3.1 | *Global* |
| Overheads | 370 | 2.9 | *Global* |
| Technical assistance | 230 | 1.8 | *Global* |
| Other | 160 | 1.3 | *Global* |
| Total | 12,710 | 100.0 | |

Note: All cumulative budgetary numbers reproduced are in nominal US$.

Source: Global Fund 2012 Annual Report; *Authors' choice of proxies for global vs. local valuation.

At the same time, the Fund serves global functions in several ways. First, its activities play an important role in managing and reducing negative cross-border externalities, especially lowering the development and spread of drug resistant malaria and TB. The Fund is also a market shaper for AIDS drugs and malaria bed nets, effectively lowering prices for all low- and middle-income countries. Through its price and quality reporting system (PQR) launched in 2009, the Global Fund also makes the prices and terms for all the key medicines and health products it finances publicly available.[14] That information is a public good which is widely utilized by countries. In addition, one might argue that the pooled and standardized allocation of Global

Fund funds (according to need, good governance, and performance) is itself a global function whose benefits (e.g., improved and more equitable control of infectious diseases) accrue to the entire global community, and which would likely be undersupplied if left to individual states. Other Global Fund global activities overlap with WHO activities—monitoring, global surveillance, data collection, and convening non-state actors for health. Finally, the Fund plays a translational, communications role globally, translating WHO's global guidelines to the subnational level.

The Global Fund's more indirect global functions described above are difficult to quantify distinctly from local functions, but their value is substantial. Several of the line-item expenditures in Table B (noted as "global") are most likely to support the kind of global (non-country-specific) functions described above. These provide reasonable proxy indicators for the value of global functions, and summing these, **we conclude that approximately 20-25% of Sweden's contribution to the Global Fund could reasonably be considered as global.**

## *UNFPA (12% of Swedish DAH)*

The United Nations Population Fund spent $384 million (from regular resources) in 2012 in pursuit of its mission to "deliver a world where every pregnancy is wanted, every childbirth is safe and every young person's potential is fulfilled." Sweden's regular contribution in that year was $66 million, making it the largest regular contributor to UNFPA.

**Table E. UNFPA expenditure by outcome, 2012**

| Development Results Framework Outcome | US$ millions | % total |
|---|---|---|
| Maternal and newborn health | 80.5 | 23.1 |
| Population dynamics | 44.7 | 12.8 |
| Data availability and analyses | 40.5 | 11.6 |
| Gender equality and reproductive rights | 38.4 | 11.0 |
| Family planning | 25.8 | 7.4 |
| Sexual and reproductive health and education | 25.5 | 7.3 |
| HIV/STI prevention services | 15.5 | 4.4 |
| Programme coordination and assistance | 77.5 | 22.2 |
| Total | 348.4 | 100.0 |

Source: Reference 15.

Table E shows that 12% of UNFPA spending as of 2012 is on data availability and analyses, which arguably constitutes largely a global public good, even if initially focused on individual countries as a substitute for weak national health information systems. The vast majority of UNFPA activities, however, (maternal and newborn health, family planning, sexuality education, gender equality, STI-prevention services) are local functions. Although most of this funding went to lower income countries, if we assume that regular resources are allocated to countries in the same proportions as total resources, then 18% of country-level support ($55 million) goes to upper middle- and high-income countries. Perhaps one-third of UNFPA activities (family planning, sexual and reproductive education, reproductive rights, HIV/STI prevention) are country-specific investments that, due to cultural or political obstacles, countries may have low willingness to pay for, even if the resources are available.

Approximating global versus local functions with geographic indicators points to a similar conclusion: 10% of UNFPA assistance is targeted at the global level, with the remainder going to regional and country activities (more likely local). **We therefore conclude that approximately 10%-15% of Sweden's contribution to UNFPA could be counted as global function contributions to global public goods for family planning.**

**Table F. UNFPA expenditure by region, 2012**

| Assistance by Region | US$ millions | % total |
|---|---|---|
| Sub-Saharan Africa | 142.9 | 41.0 |
| Asia and the Pacific | 91.9 | 26.4 |
| Arab States | 29.3 | 8.4 |
| Latin America and the Caribbean | 34.5 | 9.9 |
| Eastern Europe and Central Asia | 16.5 | 4.7 |
| Global and Other Programmes | 33.3 | 9.6 |
| Total | 348.4 | 100.0 |

Source: Reference 15

## *GAVI Alliance (9% of Swedish DAH)*

The GAVI Alliance is a public-private partnership founded in 2000 to finance the provision of new and underused vaccines to children in developing countries. The alliance is comprised of the major global health actors in immunization: the WHO, the World Bank, UNICEF, and the Gates Foundation, as well as dozens of partners from governments, civil society organizations, and the pharmaceutical industry.

GAVI performs mostly local functions for global health as it aims to improve access to immunizations for children in low-income countries, a basic public health task that normally falls under the responsibility of national governments. From its inception to mid-year 2013, GAVI has disbursed over US$5 billion (Table G). Over that period, over three-quarters of the approved expenditure went to accelerating the introduction of new and underused vaccines (e.g. rotavirus, pneumococcal, pentavalent, measles second dose, and meningitis A vaccines) in eligible low- and lower middle-income countries. The other major expenditures—health systems strengthening (increasing access to immunization by improving health service delivery, financing, and leadership) and Immunization Services Support (improving immunization performance via flexible, performance-based funding)—also focus on delivery in low-income countries, and thus GAVI financing may be considered heavily local. All of GAVI's supporting funding goes to low- or lower middle-income countries, since GAVI has an eligibility threshold of $1,520

per capita. 55% of GAVI's disbursements to date have been concentrated in 10 countries (out of the 77 that have received support since 2000). Of those 10 countries, four are lower middle-income (Pakistan, Nigeria, Ghana, Sudan). The remaining six (Ethiopia, Democratic Republic of Congo, Bangladesh, Kenya, Tanzania, Uganda) are low-income countries.[16]

**Table G. GAVI DAH by programme, 2001-2013**

| Programme | US$ millions | % total |
|---|---|---|
| Civil society organizations | 28 | 0.5 |
| Health systems strengthening | 512 | 9.3 |
| Injection safety support | 110 | 2.0 |
| Immunization services support | 341 | 6.2 |
| Vaccine introduction grant | 72 | 1.3 |
| New/underused vaccine support | 4,241 | 77.1 |
| Operational support | 204 | 3.7 |
| Total | 5,500 | 100.0 |

Source: Reference 16

As with the Global Fund, GAVI is both a new actor (organization) and a channel for new modalities of DAH, notably the International Financing Facility for Immunisations (IFFIm) and Advance Market Commitments (AMCs) for vaccines. The IFFIm transforms long-term pledges of up to twenty years from donor governments into 'vaccine bonds' sold on capital markets, generating large volumes of funds that are then immediately available for GAVI's immunization programmes, greatly improving both upfront budgets and long-term budget predictability. AMCs are commitments global health donors make to purchase newly-developed health products (e.g., a pneumococcal vaccine in GAVI's case), spurring research and development investments by the private sector that otherwise may not have occurred due to insufficient market demand. In addition to incentivizing initial production, GAVI has negotiated discounted prices for the pneumococcal vaccine and has introduced the vaccine in 24 countries since 2010, with an additional 26 countries approved for introduction. GAVI estimates that as many as 1.5 million child deaths may be averted by 2020 by the pneumococcal AMC.[17]

Again, as with the Global Fund, GAVI produces its primarily local support in ways that also contribute to global functions of DAH. This includes pooling resources to increase and improve the predictability of global funding for immunizations globally through the IFFIm, and incentivizing research and development through the AMCs for vaccines. Even its primary purpose, supporting vaccines for poor children, arguably has a global feature: eliminating negative global health externalities by slowing the spread of vaccine-preventable diseases. Most importantly, GAVI acts as the dominant funder of vaccines for low-income countries (through its procurement agent—the UNICEF Supply Division), shaping the market for a wide range of vaccines, maintaining contracts with a diverse set of manufacturers, and keeping prices low. Finally, GAVI funds some global functions through its support of other organizations, such as support to WHO and UNICEF for activities including surveillance, development of standards, product profiles, and guidelines for implementation.[17] But such support constitutes a minor proportion of GAVI's total spending.

The expenditure categories GAVI uses for its financial reporting, listed in Table G, unfortunately do not create the same "proxy indicator" opportunities to estimate the value of global versus local support as used for the Global Fund. However, given a similar conceptual division of functions for the Global Fund and GAVI—where the primary rationale of the organization (and bulk of expenditures) is to support local health needs, but in ways that produce global benefits—we argue that both organizations make similar proportional contributions to global DAH functions. **We therefore conclude that 20-25% of Sweden's contribution to GAVI serves global functions related to immunization.**

## *UNICEF (8% of Swedish DAH)*

Sweden is the third largest contributor of regular resources to UNICEF (after the U.S.A. and Norway). UNICEF, established in 1946 as the United Nations Children's Fund, has been working for decades in a range of development sectors. In 2012, UNICEF spent a total of $3.9 billion, $2.4 billion of which was used to procure supplies and services, suggesting that UNICEF is a predominantly local-targeted organization.[18] Much of the remaining $1.5 billion was also spent on local functions – country programs and program

effectiveness activities that entail "policy advisory, technical and implementation activities that facilitate UNICEF's ability to deliver effective programmes on the ground."[18]

Investigation of UNICEF's regular budget supports that notion. Of the $3.9 billion in total spending by UNICEF, $663 million was funded from regular resources. As is shown in Table F, only $14 million of regular resources were spent on global advocacy, program development and strategy, suggesting that only a small fraction of UNICEF expenditure is on global functions. It could be argued that UNICEF's spending on "Strategic and Innovative Activities" ($24 million in 2012) creates global public goods by building the knowledge base on innovations that will contribute to acceleration of progress in global health. Still, $604 million was spent on country-level programs, confirming that UNICEF plays a heavily locally-targeted role in global health, with perhaps upward of 90% of its spending to country-specific local activities. Table G supports this conclusion, showing that only 2.3% of UNICEF spending in 2012 was for interregional activities. Furthermore, of the funding disbursed on country-level programs, over five-sixths went to 40 countries with per capita income less than $1,200. UNICEF support is thus highly concentrated in low-income countries.

It is also important to note that much of UNICEF spending is not health-focused (e.g. basic education, child protection). At most, half of 2012 regular spending was strictly health spending (see table H below). Of the global health activities it does engage in (HIV/AIDS for children, young child survival), the main functions can be classified as local because they focus on reaching marginalized populations (persons living with HIV/AIDS, children living in poverty).

**Table H. UNICEF regular expenditure by focus area, 2012**

| Programme assistance expenditure by focus area | US$ millions | % total |
|---|---|---|
| Young child survival and development | 297 | 44.8% |
| Basic education and gender equality | 126 | 19.0% |
| Child protection | 93 | 14.0% |
| Policy Advocacy and partnerships | 111 | 16.7% |
| HIV/AIDS for children | 34 | 5.1% |
| Other | 2 | 0.3% |
| Total | 663 | 100.0% |

Source: Reference 18

**Table I. UNICEF regular expenditure by region, 2012**

| Programme assistance by geographic region | US$ millions | % total |
|---|---|---|
| Sub-Saharan Africa | 401 | 60.4% |
| Asia | 175 | 26.4% |
| Latin America and the Caribbean | 23 | 3.5% |
| Interregional | 15 | 2.3% |
| Middle East and North Africa | 28 | 4.2% |
| CEE/CIS | 21 | 3.2% |
| Total | 663 | 100.0% |

Source: Reference 18

**Table J. UNICEF regular expenditure by category, 2012**

| Programme assistance expenditure by focus area | US$ millions | % total |
|---|---|---|
| Countries with UNICEF programmes of cooperation | 604 | 91.1% |
| Strategic and innovative activities | 24 | 4.2% |
| Emergency Programme Fund | 18 | 2.7% |
| Advocacy and Programme development | 14 | 2.1% |
| Net revenue on product sales | 2 | 0.3% |
| Revenue adjustments | 1 | 0.2% |
| Total | 663 | 100.0% |

Source: Reference 18

Combining our findings that nearly 90% of UNICEF activities appear to be local and that as much as half are not strictly health-related, **we conclude that approximately 3%-8% of Sweden's contribution to UNICEF represents global functions of DAH.**

## *UNAIDS (7% of Swedish DAH)*

UNAIDS was established in 1996 to lead and coordinate the global response to the AIDS pandemic. UNAIDS consists of a Geneva-based secretariat and a number of "co-sponsoring" organizations, mostly UN bodies. Starting with five cosponsors in the 1990s, there are currently 11 such organizations, including UNHCR, UNICEF, WFP, UNDP, UNFPA, UNODC, UN Women, ILO, UNESCO, WHO, and World Bank.

An analysis of UNAIDS 2014-2015 budget reveals a total estimate of $4.3 billion for the two year period, or an average of $2.15 billion per year. Of this total amount, $484 million is raised together by the cosponsors for joint activities, and the balance of around $3.8 billion is mobilized separately by each cosponsoring organization.

Most global function activities are located in the common budget of $484 million. In fact, UNAIDS estimates that about 40% of this amount, or around $200 million, is allocated to global activities (Table K), especially in the areas of: global leadership and evidence-based advocacy; influencing policy making; generating and disseminating strategic information; providing technical expertise; and building partnerships. Much of these funds (about $170 million) flow through the UNAIDS Secretariat, which claims that it "plays a leadership and advocacy role to mobilize and sustain political commitment, increase and enhance country ownership and capacity, domestic and international investments, coordination, coherence, partnerships, and accountability at all levels to ensure maximum impact of resources."

Across the entire $4.3 billion for 2014-15, UNAIDS further states that around $320 million or 7% of this larger total is devoted to global activities, implying that the co-sponsors raise an additional $120 million for such global functions individually, on top of the $200 million in global activities contained in the joint budget. The $320 million in global activities is further broken down (see Table L) among advocacy and leadership (41%), coordination (33%), and accountability (26%). Like UNFPA, a significant proportion of

UNAIDS's local spending is devoted to family planning and reproductive/sexual health services, which domestic sources may be unwilling to pay for.

**Table K. UNAIDS core budget, 2014-2015**

| Programme assistance expenditure by focus area | US$ millions | % total |
|---|---|---|
| Global level | 201 | 41.5% |
| High Impact Countries | 125 | 25.9% |
| Other Countries | 158 | 32.6% |
| Total | 484 | 100.0% |

Source: Reference 19

**Table L. UNAIDS core budget allocation by strategic direction, 2014-2015**

| Programme assistance expenditure by focus area | US$ millions | % total |
|---|---|---|
| Leadership and advocacy | 132 | 41.1% |
| Coordination, Coherence and Partnerships | 105 | 32.8% |
| Mutual accountability | 84 | 26.1% |
| Total | 320 | 100.0% |

Source: Reference 19

In applying a percentage of Sweden's annual contribution to UNAIDS to global versus local functions, the challenge is to know whether this yearly contribution of 230 million krona ($34 million) is for the common UNAIDS budget or the larger cosponsor-raised budget. **Assuming the former, we estimate that at present about 35-40% of Swedish DAH for UNAIDS is for global functions, with the remaining 60-65% going to local, country-focused activities.** Of UNAIDS country-focused spending from the core budget, nearly half went to "high-impact in 2012. Like the Global Fund, a significant portion of funding does not go to low- and lower middle-income countries. Many of those 38 high-impact countries are upper middle- or high-income countries (South Africa, Russia, China, Brazil, Botswana, Namibia, Thailand).

## *WHO (under 1% of Swedish DAH)*

To estimate funding levels for global functions, we used WHO's "Programme Budget 2012–2013 Performance Assessment Report," which was published as an advanced draft in May 2014. It includes WHO expenditures for the 2012–2013 biennium. Expenditures are broken down by:

- WHO's 13 strategic objectives[6] (SOs): SO 1: reduce the burden of communicable disease; SO2: combat HIV/AIDS, TB and malaria; SO3: reduce the burden of NCDs; SO4: improve health during key stages of life; SO5: reduce health consequences of emergencies, disasters, crises and conflicts; SO 6: tackle risk factors for health such as tobacco, alcohol, drugs; SO7: address social determinants of health; SO8: promote a healthier environment; SO9: improve nutrition, food safety and food security; SO10: improve health services through better governance; SO 11: improving access, use, and quality of medical products and technologies; SO 12: improving leadership, governance and partnership; SO13: sustain WHO as a flexible learning organization.
- Major office (HQ; regional offices).
- Budget segments, of which there are three: base programmes, special programmes & collaborative agreements, and outbreak & crisis response.

Our analysis is based on two broad assumptions. First—in line with R4D's 2013 working paper conducted for the CIH[20]—we assume that **all headquarter funding is for global functions**. Second, we assume that some of the funding channeled through WHO's **regional offices** (e.g. for polio eradication or regional pandemic outbreak surveillance systems) also counts as funding for global functions. To estimate the share of regional expenditures relating to the provision of global functions, we assessed the three budget segments and their regional funding shares as follows:

[6] These strategic objectives were set out in the WHO Medium-term strategic plan 2008-2013 (translating the Eleventh General Programme of Work's long-term vision for health into strategic objectives and providing the basis for the Organization's detailed operational planning). However, with the end of the strategic plan, as of 2014, a medium-term strategic plan is no longer be in place and new categories of work are the structure around which the work of WHO will be organized for programme budgets housed under WHO's twelfth general programme of work (five programmatic categories of work plus an additional category for corporate services and enabling functions).

- The budget segment "Special programmes & collaborative agreements" includes activities that are undertaken in collaboration with partners (e.g. the WHO Special Programme for Research and Training in Tropical Diseases). A list of these special programs is available in WHO's Programme Budget 2012-2013 and after assessing the list, we assumed that they all count fully to global functions, as they are mostly research partnerships. To account for this assumption, we added the regional funding of this budget segment (i.e. the funding of this budget segment that is not HQ funding) to global functions funding. This is specifically the case for SO 1, which is also the largest SO in absolute terms (the Global Polio Eradication Initiative is one of the special programs), but also for SO 2 and SO 10.
- The budget segment "Outbreak & crisis response" includes activities governed by acute external events. Regional funding in this budget segment is provided for SO 1 and SO 5; the vast majority (97%) is allocated to these two SOs. We counted the full amount of SO 1 and a small share of SO 5 as funding for global functions (SO 5 includes some funding for disease surveillance and response systems).
- As for the third budget segment, "Base programmes", some SO achievements in the performance assessment report clearly showed regional activities serving as global functions. However, data constraints made it difficult to determine the precise share of global function funding. Hence, we conducted qualitative assessments of the SO achievements reported to estimate what shares of regional funding serve global functions in base programmes of SOs. Our assessment showed that all SOs except for SO 3, SO 5, SO 9 and SO 13 included global functions activities, especially the following ones:
- SO 6 (risk factors for health such as tobacco, alcohol, drugs)
- SO 10 (improve health services through better governance)
- SO 11 (medical products and technologies)
- SO 12 (leadership, governance and partnership).

The achievements of all SOs were screened for global functions activities that are presumably not covered by the other two budget segments. The value of expenditure for those activities was estimated.

We found that:

- In 2012-2013, **31%** (US$1.2 billion) of all WHO expenditures went to headquarters and is therefore considered as funding for global functions.
- In addition to the HQ funding, global functions funding in the regional offices' budget segment "Special programmes & collaborative agreements" amounted to **US$906 million** for the years 2012-2013 (Total global functions funding in HQ and regional offices for this budget segment for the years 2012-13: US$1,212 million).
- Moreover, **US$70 million** of the regional funding in the budget segment "Outbreak & crisis response" for the years 2012-13 was considered as global functions funding (Total global functions funding in HQ and regional offices for this budget segment for the years 2012-13: US$105 million).
- We further estimated that **US$245 million** from WHO regional offices in the "Base programmes" budget segment also serves as global functions (Total global functions funding in HQ and regional offices for this budget segment for the years 2012-13: US$1,118 million).

According to these results, the total global functions funding for the 2012-2014 biennium was US$2,435 million, which is **62%** of WHO's expenditures (US$3,914 million).

The disaggregation of the WHO's global function investments into the three components—provision of global public goods, management of externalities across countries, and strengthening leadership and stewardship—is challenging due to the lack of detailed data. For all budget segments, there is only information on overall funding per SO and major office, but no indication (or only a qualitative description) of how much funding each special program or activity received. The annual reports of the Regional Offices also do not provide more detailed quantitative data on the disaggregated activities. A reliable assessment of the disaggregated global functions does not therefore seem feasible.

# Appendix 5: 2012 Swedish development cooperation country support for health

**Table M: characteristics of the 12 countries: GNI p.c., income classification, projected GDP growth rates per capita, population, health indicators**

| Country | GNI p.c. Ranking [1] | World Bank 2012 GNI p.c. (US dollars) | World Bank Income Classification [4] | Real GDP Growth P.C. Estimates and Projected [5] | | | 2012 Population (000) [6] | 2012 Health Indicators | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 2012 | 2013 | Annual Ave. 2014-19 | | U5MR | $e_0$ | TFR | Adult HIV/AIDS Prev (%) |
| South Africa | 96 | $ 7,610 | UMIC | 1.6% | 1.1% | 2.3% | 52,386 | 45 | 56.1 | 2.4 | 17.9 |
| Guatemala | 144 | $ 3,120 | LMIC | 0.4% | 1.0% | 1.1% | 15,083 | 32 | 71.7 | 3.8 | 0.7 |
| India | 164 | $ 1,530 | LMIC | 3.5% | 3.1% | 5.3% | 1,236,687 | 56 | 66.2 | 2.5 | 0.3 |
| Sudan | 165 | $ 1,450 | LMIC | -5.1% | 1.3% | 2.4% | 37,195 | 73 | 61.9 | 4.5 | N/A |
| Zambia | 169 | $ 1,350 | LMIC | 4.1% | 2.8% | 3.4% | 14,075 | 89 | 57.0 | 5.7 | 12.7 |
| Bangladesh | 183 | $ 840 | LIC | 4.9% | 4.5% | 5.6% | 154,695 | 41 | 70.3 | 2.2 | 0.1 |
| Zimbabwe | 190 | $ 680 | LIC | 7.9% | -0.1% | 1.5% | 13,724 | 90 | 58.0 | 3.6 | 14.7 |
| South Sudan | 193 | $ 650 | LIC | -51.9% | 20.3% | 6.3% | 10,838 | 104 | 54.6 | 5.0 | 2.7 |
| Tanzania | 196 | $ 570 [2] | LIC | 3.9% | 3.9% | 4.1% | 47,783 | 54 | 60.8 | 5.3 | 5.1 |
| Uganda | 206 | $ 440 | LIC | -0.6% | 2.7% | 3.8% | 36,346 | 69 | 58.6 | 6.0 | 7.2 |
| DR Congo | 213 | $ 220 | LIC | 4.4% | 5.8% | 4.8% | 65,705 | 146 | 49.6 | 6.0 | 1.1 |
| Somalia | [3] | [3] | LIC | N.A. | N.A. | N.A. | 10,195 | 147 | 54.7 | 6.7 | 0.5 |

[1] Rankings include all 2014 World Bank Atlas economies.

[2] Covers mainland Tanzania only.

[3] Estimated to be low income (no point estimate available).

[4] UMIC (Upper middle income country): GNI between $4,086 and $12,615, LMIC (Lower middle income country): GNI between $1,036 and $4,085), LIC (low income country): GNI $1,035 or less. Based on 2012 GNI p.c.

[5] International Monetary Fund, World Economic Outlook Database, April 2014 and UN World Population Prospects, Medium Fertility Projections (see below).

[6] United Nations World Population Prospects: the 2012 Edition, Medium Fertility Projections, accessed April 15, 2015. http://esa.un.org/unpd/wpp/unpp/panel_population.htm

# Appendix 6 Assessment of bilateral support for global versus local functions: Sweden and other donors (Canada, the Netherlands, Norway, the UK)

To estimate the funding for global and local functions from bilateral health assistance, we used the OECD Creditor Reporting System (CRS) database as a starting point (http://www.oecd.org/dac/stats/idsonline.htm). This database includes commitment and disbursement data on bilateral ODA of 25 DAC donor governments plus the Bill & Melinda Gates Foundation. Since 2013 data will only be available in December 2014, the analysis focuses on **2012 disbursements**. Our focus on a single year (2012) means that the analysis can only be a snapshot; it cannot provide time trends. An analysis of the past three years (or even a longer timeframe) would have been preferable but was not possible under the time and resource constraints of this study.

The CRS database is useful for the assessment of global versus local functions because it allows us to filter donor projects by geographical focus. In addition to projects supporting specific recipient countries, this filter can be used to generate a list of global and multi-regional projects – this category is called **unspecified bilateral ODA** in the CRS database. By definition, donors are expected to use this category if a project benefits several regions (http://www.oecd.org/dac/stats/crsguide.htm). This list of global and multi-regional projects also includes funding for certain multilateral initiatives (although it is *supposed* to be focused just on bilateral funds), including funds directed to product development partnerships, WHO, and others. According to our analysis, most donors report 20-40% of their bilateral funding as "unspecified". In 2012, only three donors (Australia, Canada, and Japan) reported that they had allocated less than 10% to the "unspecified" category.

However, it cannot be assumed that all of the funding categorized as 'unspecified bilateral funding' is for global functions. Therefore, a fine-grained **'project-by-project' analysis** of every single project categorized as unspecified funding had to be conducted.

Furthermore, as the CRS database often does not provide comprehensive descriptions of project expenditures, we needed to conduct additional research – going beyond the CRS – to estimate how much of the funding for each project related to global functions. This research involved examining websites, project descriptions, and budgets.[7] Our greatest challenge was to further disaggregate global aid into the three main categories (global public goods [GPGs], managing externalities, and leadership/stewardship), since there were so few descriptive project data. Table N provides examples of projects and initiatives that support global functions of global health.

[7] For some projects, it was not necessary to look at other data sources (i.e. beyond the CRS). For instance, CRS projects focusing on research, product development, and tackling drug resistance were all counted as being 100% targeted towards global functions.

**Table N. Examples of bilateral DAH that supports global functions, by the three key categories**

| Category | Examples |
|---|---|
| Providing global public goods | The International Partnership for Microbicides 2008-13<br>The AERAS Global TB Vaccine Foundation (AERAS) 2009-14<br>The Government of Canada has created a fund to support health research and innovation aimed at improving the lives of the world's poor. The Development Innovation Fund (DIF) will support scientists and scientific institutions engaged in health research through a series of peer-reviewed grant competitions.<br>The World Health Organisation Special Programme of Research and Training in Tropical Diseases |
| Management of negative externalities | Accountable Grant With Carter Center to Provide Support for the Eradication of Guinea Worm Disease<br>DFID Contribution Towards the Global Polio Eradication Initiative (GPEI) 2008-2013<br>ReAct network (taking action on antibiotic resistance) |
| Leadership and stewardship | The Partnership for Maternal Newborn and Child Health<br>UNDP Securing Commitment & Accountability for Nutrition results: To support a global programme with country-led civil society initiatives in Scaling Up Nutrition countries to generate political commitment and leadership, to tackle undernutrition: improving nutrition policies and programmes; leveraging increased finance<br>WHO- Stop TB Partnership project: To help foster greater collaboration, cohesion and integration within the global tuberculosis control movement and as a result improve prioritisation and the efficiency and effectiveness of the global response.<br>IHP+: To support greater effectiveness and accountability in global aid for health through implementation of i) the work plan of the International Health Partnership (IHP+) and ii) the work plan of the Commission for Information and Accountability. |

# Appendix 7: 2012 Swedish development cooperation country support for health: eligibility status World Bank (IDA), GAVI, Global Fund, PEPFAR

| Country (area of support) | World Bank 2012 GNI p.c. (US dollars) | World Bank IDA Classification 1/ | Currently GAVI Eligible? | Projected GAVI graduation 2/ | Global Fund Status Eligibility 4/ | Currently Receiving PEPFAR support? 5/ |
|---|---|---|---|---|---|---|
| South Africa | $ 7,610 | Ineligible | no | N.A. | HIV/AIDS,/TB | Yes |
| Guatemala | $ 3,120 | Ineligible | no | N.A. | HIV/AIDS/TB/Malaria | Yes |
| India | $ 1,530 | Blend | eligible | 2020 | HIV/AIDS/TB/Malaria | Yes |
| Sudan | $ 1,450 | Inactive 3/ | eligible | 2022 | HIV/AIDS/TB/Malaria | No |
| Zambia | $ 1,350 | Eligible | eligible | 2023 | HIV/AIDS/TB/Malaria | Yes |
| Bangladesh | $ 840 | Eligible | eligible | 2031 | HIV/AIDS/TB/Malaria | Yes |
| Zimbabwe | $ 680 | Eligible | eligible | after 2035 | HIV/AIDS/TB/Malaria | Yes |
| South Sudan | $ 650 | Eligible | eligible | 2032 | HIV/AIDS/TB/Malaria | Yes |
| Tanzania | $ 570 | Eligible | eligible | after 2035 | HIV/AIDS/TB/Malaria | Yes |
| Uganda | $ 440 | Eligible | eligible | after 2035 | HIV/AIDS/TB/Malaria | Yes |
| DR Congo | $ 220 | Eligible | eligible | after 2035 | HIV/AIDS/TB/Malaria | Yes |
| Somalia | N.A. | Inactive 3/ | eligible | after 2035 | HIV/AIDS/TB/Malaria | No |

1/ Generally 2012 GNI p.c. of $1,205 or less with exceptions for some small island economies.

2/ Under current eligibility and graduation policy (which is under review).

3/ Inactive due to protracted non-accrual status.

4/ Guatemala likely to graduate the soonest due to projected GNI p.c. growth and changes in disease prevalence.

5/ Hard to predict how long PEPFAR support will continue as no explicit eligibility and graduation policy.

# Appendix 8. Analysis of Sweden's support for research on infectious diseases

We reviewed Swedish funding for research on infectious diseases that disproportionately affect poor populations in LICs and MICs.[8] Most funding is from 4 sources: Sida, the Swedish National Research Council, the Swedish Foundation for Strategic Research, and the Swedish Heart Lung Foundation. Table O provides an overview of funds from these three institutions for 2010-2013.

[8] There is no simple way to define what constitutes research funding for such diseases. For the purpose of this review, information on all research projects and grants provided by the National Research Council and the Foundation for Strategic Research has been reviewed. All research grants that are either (1) directly for research on infectious diseases or (2) indirectly related to infectious diseases (e.g. health systems research or health economics related to infections of poor populations) have been included in the calculation of total funds. For Sida, it has been assumed that all research grants provided for medical research are of relevance for infectious diseases.

**Table O: Swedish funds for research on infectious diseases of poor populations, 2010-2013. Amounts in thousands SEK**

| | Amount | | | |
|---|---|---|---|---|
| **Funding Source** | 2010 | 2011 | 2012 | 2013 |
| Swedish National Research Council[9] | 41,037 | 49,050 | 56,945 | 50,595 |
| Swedish Foundation for Strategic Research[10] | 9,100 | 8,250 | 12,500 | 25,000 |
| Sida[11] | *177,582 | *152,085 | *133,229 | n/a |
| The Swedish Heart Lung Foundation | 0,255 | 1,962 | 6,026 | 13,318 |
| **TOTAL** | 227,974 | 211,347 | 208,700 | n/a |

*calculation made from USD using the annual average exchange rate. For 2012, the average rate was 6.77 SEK/USD; for 2011, the average rate was 6.48 SEK/USD; for 2010, the average rate was 7.21 SEK/USD.

As shown in table O, total funding amounted to about 200 million SEK annually. Sida provides grants for medical research purposes; while the total amount of Sida funding is fairly large, most of these funds are distributed to a few recipients, particularly the WHO. Other large Sida grants include support to the INDEPTH network, to ICDDR,B and to institutional collaborations with universities in LICs such as Uganda. It is likely only a small share of the funding from Sida benefits researchers in Swedish universities.

Overall, funding for infectious disease research of relevance for LICs and MICs is relatively limited. Funding flows for such research within Sweden have been maintained year on year, but at fairly low levels (57-75 million SEK, 2011-2013). Most of the funding from Sida is directed to recipients outside of Sweden.

[9] Includes all research grants approved related to infectious disease research of relevance to poor populations.
[10] Includes all research grants disbursed related to infectious disease research of relevance to poor populations.
[11] Includes all grants disbursed with the exception of those administered by the National Research Council and MSB, which are included under the National Research Council column.

According to key informants interviewed, funding at current levels is not sufficient for any large-scale research programmes on infectious diseases of the poor. Normally grants are fairly small and are used to finance the thesis projects for one or two students. This limited funding cannot be explained by a lack of good quality research proposals. In 2012, 31 proposals to the National Research Council were graded as "very good to excellent" or above. However, due to limited resources only 18 of these were granted funds, which mean that 13 proposals with high scientific relevance were left unfunded. Finally, in the last few years, funding from the National Research Council has been awarded to fewer and fewer applicants, but with larger grants to each applicant. That said, average grants are still relatively small (2-3 million SEK over a period of about 3 years).

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