Financing for international collective action for health between 2020-2022. Background paper for CIH 3.0.

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1. Introduction

The first report of the *Lancet* Commission on Investing in Health (CIH), "Global health 2035: a world converging within a generation" (GH2035) made a case for reorienting development assistance for health (DAH) away from country-specific support to individual low- and middle-income countries (LMICs), towards international collective action for health (ICAH). More specifically, GH2035 argued that DAH should be targeted at "global functions", which address health challenges that go beyond the boundaries of individual nation states. Funding for global functions reaps transnational health benefits, regionally or globally.

GH2035 categorized global functions into three types:

- Provision of global public goods (GPGs), such as product development for neglected diseases
- Management of cross-border externalities, such as pandemic preparedness and response (PPR)
- Fostering leadership and stewardship, such as convening for consensus building.

Funding for what the CIH calls country-specific functions refers to funding given to an individual country to support disease control activities, such as reducing maternal mortality, that will benefit that country alone. Jamison and colleagues (1998) defined country-specific functions as activities that tackle "time limited problems within individual countries that justify international collective action because of highly constrained national capacity."

At the time GH2035 was released, available DAH data did not provide evidence on the extent to which resources were targeted at global functions, so in 2015 we introduced a new method to track aid by function (Schäferhoff et al, 2015). The method allowed us to estimate the proportion of DAH directed to the three categories of global functions and to country-specific functions. We also introduced a broader concept of health aid, called "DAH Plus" (DAH+), to capture additional public spending on product development for neglected diseases from agencies, such as the National Institutes of Health (NIH), that are usually excluded in studies that track DAH.

Our 2015 study found that global functions accounted for 23% of DAH+ disbursements in 2013, while 77% was allocated towards country-specific activities. A follow-up study by CIH authors confirmed that donors are prone to "cycles of panic and neglect" (Schäferhoff 2019). In response to the 2014-2016 Ebola epidemic in West Africa, during the "panic" phase the share of funding for global functions grew to 29% in 2015, driven by a reactive increase in outbreak response funding. This was followed by a "neglect" phase—donors did not sustain their preparedness funding after the outbreak, and the share of funding for global functions dropped to 24% in 2017.

Our new analysis extends our previous DAH+ assessments well into the pandemic period. In this study, we assess trends in DAH+ in the years 2020-2022. We classify the funding by function and subfunction, i.e., we assess the proportion of funding for global functions and respective subfunctions vs. funding for country-specific funding. We also disaggregate the country-specific funding in two types: funding for the CIH 3.0 priority conditions, which comprise eight infections and maternal health conditions (the "IMH-8"), and funding for other country-specific functions (noncommunicable diseases and health system strengthening).

2. Methods

Development Assistance for Health Plus (DAH+)

The DAH+ framework allows us to conduct a more comprehensive assessment of funding by international funders to global functions. DAH+ includes:

- Official development assistance (ODA) for health as reported by funders to the Organisation for Economic Cooperation and Development's Development Assistance Committee (OECD DAC).
- *Private development finance* from philanthropic funders, such as the Gates Foundation, reporting to the OECD DAC.
- Funding for neglected disease product development from the Global Funding for Innovation for Neglected Diseases (G-FINDER) database (Policy Cures 2024). In our view, all funding for R&D for neglected diseases is an important addition to traditional concepts of DAH, because LMICs are disproportionally affected by them. For example, funding for the development of an HIV vaccine channeled by the US government through the NIH does not count as DAH since the provision of development aid is not NIH's primary purpose. From our perspective, such organizations contribute significantly to global health, and including them improves the accuracy of our estimate of global health funding.

Data sources

As in our previous studies, we used two major data sources:

First, we obtained data on health ODA and private development finance for health from the Creditor Reporting System (CRS) database of the OECD DAC. The CRS database, assembled and hosted by the OECD DAC, is a record of financial aid flows from official donor agencies to recipient countries. The database documents individual project and program level financial data reported by 30 DAC donor countries, 19 non-DAC donor countries, 63 multilateral institutions, and 41 private philanthropic foundations working in development. Each financial record in the CRS database includes a purpose code. The purpose code is a five-digit number representing the sector of destination for aid. The first three digits of the purpose code correspond to a general sector to which the aid is allocated while the last two digits define the specific sub-sector to which the aid is allocated. The three-digit codes are also known as DAC5 codes, while the five-digit codes are called CRS codes.

We assessed four DAC5 codes for "aid to health": "health, general (DAC5 code 121)," "basic health (DAC5 code 122)," "non-communicable diseases (NCDs) (DAC5 code 123)," and "population policies/programmes and reproductive health (DAC5 code 130)." For these four DAC5 codes, there are a total of 27 purpose codes, of which two are voluntary codes. In addition, we included purpose code 16064 ("social mitigation of HIV"). We assessed health ODA disbursements ("actual international transfer of financial resources, or of goods or services valued at the cost to the donor") for the years 2020, 2021, and 2022 (US Dollars, constant 2021 prices). We used the December 22, 2023 update of the CRS and downloaded the data on January 3, 2024. We downloaded all projects ("aid activities") from the CRS for the period 2020-2022, i.e., we downloaded the "microdata". In total, there were 139,066 health projects in these three years.

Second, we accessed data on funding for neglected disease product development from the G-FINDER database, which tracks disbursements on product development for 42 neglected diseases. Our assessment includes all G-FINDER funding by all international funders (public and philanthropic). We did not include funding for R&D on neglected diseases by LMICs and the private sector. The GFINDER data was accessed on February 19, 2024. Small parts of the funding in the G-FINDER database are also reported by international funders to the OECD DAC. To avoid double-counting, we assessed the CRS purpose code for medical research and removed R&D projects that were in both databases.

Approach

Our assessment entailed four major steps. First, we classified the 27 CRS purpose codes into global functions and country-specific functions (and their respective subfunctions):

- 7 CRS codes report on global functions according to our categorization:
 - GPGs: Health statistics and data; Medical research; Research for prevention and control
 of NCDs; Population statistics and data.
 - Management of externalities: COVID-19 control; Tobacco use control; Control of harmful use of alcohol and drugs.
 - o Leadership and stewardship: None.
- 11 CRS codes focus on country-specific support for the IMH-8: Malaria control; Tuberculosis
 control; STD control including HIV/AIDS; Social mitigation of HIV/AIDS; Infectious disease
 control; Reproductive health care; Family planning; Personnel development for population and
 reproductive health; Population policy and administrative management; Basic health care; Basic
 nutrition.
- 3 CRS codes report on country-specific funding for NCD control.
- The remaining 6 CRS codes report on broader health systems strengthening, including for the provision of tertiary services (see Annex 1 for more information).

Second, our classification of CRS codes provides an initial framework for our analysis. However, we also performed a keyword search to identify projects that support global functions and respective subfunctions. For example, polio eradication is an important subfunction under the management of externalities. Another important subfunction are aid activities against antimicrobial resistance (AMR), so

we searched for projects and programs that aim to tackle AMR. Global health leadership as well as the development and harmonization of international health regulations are important subfunctions under GPGs. We searched the title, short description, and long description of each project in the CRS database for our key terms. Any project containing one of our key terms was allocated to the sub-function associated with that key term (regardless of its purpose code). CRS keyword searches are a common strategy to analyze financing for specific health areas. For each of the 10 sub-functions of global functions (see Table 1), we established a list of keywords. Using these keywords, we searched the CRS database to identify those aid projects that potentially provided funding for global functions.

Third, we conducted a manual coding exercise to qualitatively analyze and confirm which projects supported global functions and identify the primary sub-function. As part of this coding, we assessed the project titles and descriptions to see if the key term search led to valid results. We also assessed other information deemed useful for determining if a project supports global functions or respective subfunctions.

Fourth, we made additional adjustments based on information from the microdata. For example, the "control of cross-border disease movement" is an important subfunction under the management of externalities. As such, if funding was allocated to a geographical region rather than a specific country, it was placed under this category.

Regional analysis

We disaggregated all health aid in the CRS database by geographical region and sub-function. We used geographical regions consistent with the Lancet Commission on Investing in Health: Central Asia, Central and Eastern Europe, China, India, Latin America and Caribbean, Middle East and North Africa, North Atlantic, Sub-Saharan Africa, and Western Pacific and Asia. All projects in the CRS database include a regional recipient. We allocated health aid to our geographical regions using the CRS regional recipient label. Aid with a regional recipient overlapping or outside of our defined regions was categorized as "other."

Limitations

There are three main limitations. First, CRS project descriptions can be vague, which might have affected our key term search because of the limited project information. Second, aid activities were classified as targeting "global functions" if the CRS project information indicated that the project provided funding in support of global functions. If this was the case, the entire project amount counted towards global functions. We then coded the project to a single global function and the main sub-function. If the project information suggested that the project focused on multiple sub-functions, we only selected the sub-function that was the primary focus. Apportioning project funding across different sub-functions was not feasible due to data limitations in the CRS. Third, the GFINDER database does not disaggregate global R&D funding by geographical region. Consequently, for our regional analysis we only include R&D funding from the CRS database and not from the GFINDER database.

3. Results

3.1 Funding for global functions

DAH+ disbursements reached \$38.4 billion in 2020, \$44.4 billion in 2021 and \$47.3 billion in 2022, its highest ever level (Figure 1; see also Annex 2). Despite justified criticism of the behavior of high-income countries during the pandemic, especially their hoarding of COVID-19 vaccine doses (Yamey et al, 2021; Zelikow, 2023), the pandemic led to a substantial increase in DAH+. In addition, the share of DAH+ targeted at global functions grew from about a quarter before the pandemic to over a third during it (compare Schäferhoff et al. 2019). The pandemic response clearly drove this increase, but funding for other global functions also contributed to this upward trend. Funding for the control of cross-border disease movement, which includes funding for regional programs and polio eradication, grew compared to previous years (Table 1).

However, there are also some concerning trends. First, the share of funding by donor governments channeled through multilateral agencies increased from 23% in 2020 to 30% in 2021, while the share of funding that was directly provided to recipient governments dropped from 38% to 33%. At the same time, DAH+ disbursements to low-income countries remained flat in 2021 compared to 2020 levels, which indicates that the additional funding made available by donors in 2021 did not reach low-income countries (WHO, 2022). Second, funding for basic research and product development for neglected diseases fell from \$3.1 billion in 2021 to \$2.8 billion in 2022. This fall comes at a time when there is a pressing need to increase investment in such product development—in order to achieve the "30 by 2035" and "50 by 50" goals described in section 3—and to leverage new approaches to reduce development costs.

3.2 Funding for country-specific functions

Our analysis finds that in 2022, \$32.0 billion of the funding was targeted at country-specific functions, of which about three-quarters (76% or \$24.4 billion) addressed these priority conditions. The remaining share (24%) was mostly for broader health systems support (\$7.3 billion), while only a small fraction was for NCDs (\$0.3 billion). Thus, the analysis shows that country-specific aid is already strongly targeted at the priority infections and maternal health conditions (Table 1).



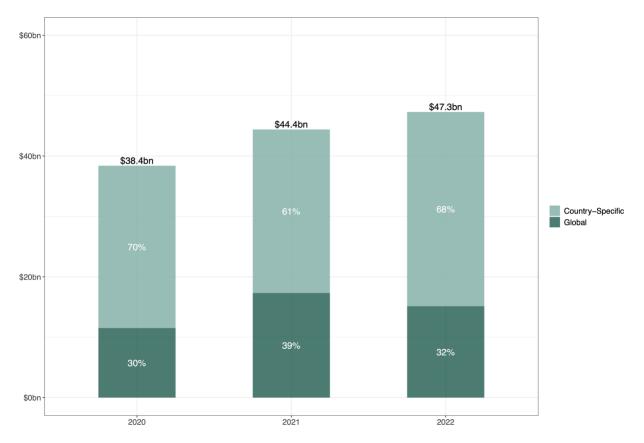


Table 1. Funding for global functions by function and sub-function (constant 2021), US 2020-2022

Function and Sub-Function	2020	2021	2022
Global public goods	\$3200	\$3400	\$3000
Product development	\$3000	\$3100	\$2800
Development/harmonization of health regulations	\$84	\$110	\$93
Knowledge generation	\$150	\$170	\$140
Intellectual property	\$0.00	\$0.20	\$0.10
Externalities	\$8200	\$14,000	\$12,000
Outbreak preparedness and response	\$5300	\$11,000	\$9200
(COVID-19)	(\$4300)	(\$8800)	(\$5700)
AMR	\$210	\$230	\$150
Responses to marketing of unhealthful products	\$110	\$130	\$100
Control of cross-border disease movement	\$2600	\$2700	\$2700
Leadership and stewardship	\$150	\$160	\$140
Health advocacy and priority setting	\$140	\$150	\$130
Aid effectiveness/accountability	\$10	\$13	\$8
Country-specific functions	\$27,000	\$27,000	\$32,000
Priority infections and maternal health conditions	\$22,000	\$21,000	\$24,000
NCDs and health systems strengthening	\$4800	\$5900	\$7600
(Noncommunicable diseases)	(\$270)	(\$300)	(\$260)
(Health system strengthening)	(\$4500)	(\$5600)	(\$7300)
Total	\$38,000	\$44,000	\$47,000

CIH3.0 makes the case that funding for country-specific disease control and HSS should focus on the least-developed countries, which are mostly located in sub-Saharan Africa. Figures 2 and 3 show the regional distribution of the ODA-part of DAH+. In 2022, two-thirds (66%) of country-specific funding (Figure 2) and almost three-quarters of the funding specifically for priority infections and maternal health conditions (74%) was channeled to countries in sub-Saharan Africa (Figure 2). About a quarter of funding (26%) went to countries outside sub-Saharan-Africa, many of which fall in the middle-income country category; middle-income countries have adequate potential for domestic public finance of their health system. Figures 4 and 5 include private development funding in addition to ODA and show a slightly different distribution across regions.

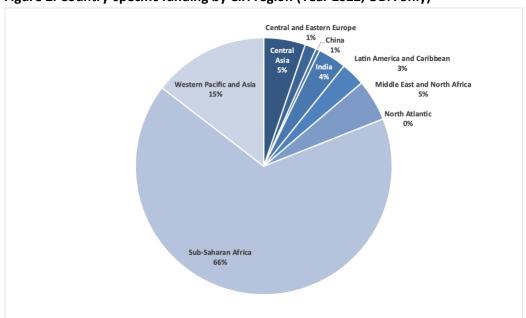


Figure 2. Country-specific funding by CIH region (Year 2022; ODA only)

Note: Excludes funding that cannot be allocated to a country or region ("bilateral unspecified funding").

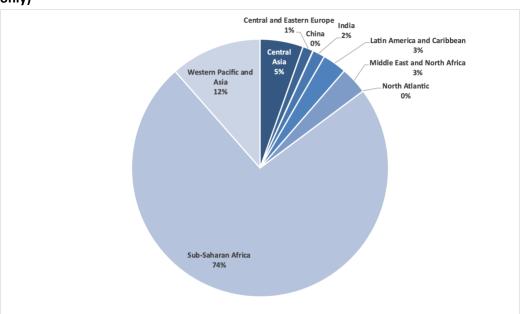


Figure 3. Priority infections and maternal health conditions funding by CIH region (Year 2022; ODA only)

Note: Excludes funding that cannot be allocated to a country or region ("bilateral unspecified funding").

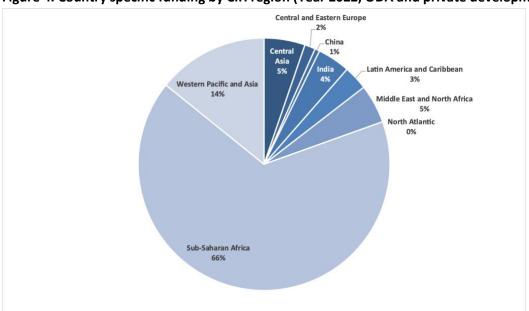
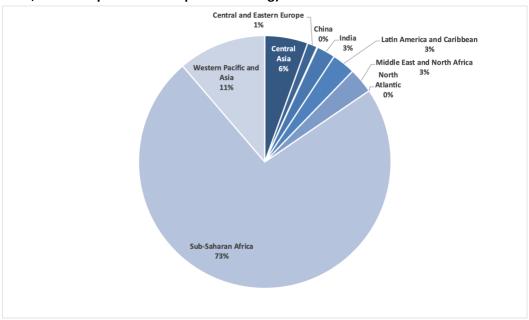


Figure 4. Country specific funding by CIH region (Year 2022; ODA and private development funding)

Note: Excludes funding that cannot be allocated to a country or region ("bilateral unspecified funding").





Note: Excludes funding that cannot be allocated to a country or region ("bilateral unspecified funding").

Annex. 1 Categorization of DAH+ by function based on CRS codes

Purpose	Purpose code	Purpose code	Function	Sub-function
code	name	description Health sector policy,		
12110	Health policy and administrative management	planning and programmes; aid to health ministries, public health administration; institution capacity building and advice; medical insurance programmes; including health system strengthening and health governance; unspecified health activities.	Country specific	Health systems strengthening
12196	Health statistics and data	Collection, production, management and dissemination of statistics and data related to health. Includes health surveys, establishment of health databases, data collection on epidemics, etc.	Global public good	Knowledge generation
12181	Medical education/training	Medical education and training for tertiary level services.	Country specific	Health systems strengthening
12182	Medical research	General medical research (excluding basic health research and research for prevention and control of NCDs (12382)).	Global public good	Product development
12191	Medical services	Laboratories, specialised clinics and hospitals (including equipment and supplies); ambulances; dental services; medical rehabilitation. Excludes noncommunicable diseases (123xx).	Country specific	Health systems strengthening

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12220	Basic health care	Basic and primary health care programmes; paramedical and nursing care programmes; supply of drugs, medicines and vaccines related to basic health care; activities aimed at achieving universal health coverage.	Country specific	Priority infections and maternal health conditions
12230	Basic health infrastructure	District-level hospitals, clinics and dispensaries and related medical equipment; excluding specialised hospitals and clinics (12191).	Country specific	Health systems strengthening
12240	Basic nutrition	Micronutrient deficiency identification and supplementation; Infant and young child feeding promotion including exclusive breastfeeding; Non-emergency management of acute malnutrition and other targeted feeding programs (including complementary feeding); Staple food fortification including salt iodization; Nutritional status monitoring and national nutrition surveillance; Research, capacity building, policy development, monitoring and evaluation in support of these interventions. Use code 11250 for school feeding and 43072 for household food security.	Country specific	Priority infections and maternal health conditions
12250	Infectious disease control	Immunisation; prevention and control of infectious and parasite diseases, except malaria (12262),	Country specific	Priority infections and maternal health conditions

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		tuberculosis (12263), COVID-19 (12264), HIV/AIDS and other STDs (13040). It includes diarrheal diseases, vector-borne diseases (e.g. river blindness and guinea worm), viral diseases, mycosis, helminthiasis, zoonosis, diseases by other bacteria and viruses, pediculosis, etc.		
12261	Health education	Information, education and training of the population for improving health knowledge and practices; public health and awareness campaigns; promotion of improved personal hygiene practices, including use of sanitation facilities and handwashing with soap.	Country specific	Health systems strengthening
12262	Malaria control	Prevention and control of malaria.	Country specific	Priority infections and maternal health conditions
12263	Tuberculosis control	Immunisation, prevention and control of tuberculosis.	Country specific	Priority infections and maternal health conditions
12264	COVID-19 control	All activities related to COVID-19 control e.g. information, education and communication; testing; prevention; immunisation, treatment, care.	Management of cross- border externalities	Outbreak preparedness & response
12281	Health personnel development	Training of health staff for basic health care services.	Country	Health systems strengthening
12310	NCDs control, general	Programmes for the prevention and control	Country specific	NCDs

		of NCDs which cannot be		
		broken down into the		
		codes below.		
		Population/individual		
		measures and		
		interventions to reduce		
		all forms of tobacco use		
		in any form. Includes		
		activities related to the	Management	Responses to
12320	Tobacco use	implementation of the	of cross-	marketing of
12320	control	WHO Framework	border	unhealthful
		Convention on Tobacco	externalities	products
		Control, including		
		specific high-impact		
		demand reduction		
		measures for effective		
		tobacco control.		
		Prevention and reduction of harmful use		
		of alcohol and		
		psychoactive drugs;		
	Control of harmful use of alcohol and drugs	development,		
		implementation,		
		monitoring and	N.4	Responses to marketing of unhealthful products
		evaluation of prevention	Management of cross-	
12330		and treatment	border	
		strategies, programmes	externalities	
		and interventions; early	externances	products
		identification and		
		management of health		
		conditions caused by use of alcohol and drugs		
		[excluding narcotics		
		traffic control (16063)].		
		Promotion of		
		programmes and		
		interventions which		
		support mental health		
12340		and well-being		
	Promotion of	resiliency; prevention,	Country	N.C.D.
	mental health and	care and support to	specific	NCDs
	well-being	individuals vulnerable to		
		suicide. Excluding treatment of addiction		
		to tobacco, alcohol and		
		drugs (included in codes		
		12320 and 12330).		

		Population/individual		
		measures to reduce		
		exposure to unhealthy		
		diets and physical		
		inactivity and to		
		strengthen capacity for		
		prevention, early		
		detection, treatment		
		and sustained		
		management of NCDs		
		including:		
		Cardiovascular disease		
		control: Prevention,		
		screening and treatment		
		of cardiovascular		
		diseases (including		
		hypertension,		
		hyperlipidaemia,		
		ischaemic heart		
		diseases, stroke,		
		rheumatic heart disease,		
		congenital heart disease,		
	Other prevention	heart failure, etc.).		
12350	and treatment of	Diabetes control:	Country	NCDs
12330	NCDs	Prevention, screening,	specific	NCD3
	NCD3	diagnosis, treatment and		
		management of		
		complications from all		
		types of diabetes.		
		Exposure to physical		
		inactivity: Promotion of		
		physical activity through		
		supportive built		
		environment (urban		
		design, transport),		
		sports, health care,		
		schools and community		
		programmes and mass		
		media campaign.		
		Exposure to unhealthy diet: Programmes and		
		interventions that		
		promote healthy diet		
		through reduced		
		consumption of salt,		
		sugar and fats and		
		increased consumption		
		of fruits and vegetables		
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		e.g. food reformulation,		
		nutrient labelling, food		
		taxes, marketing		
		restriction on unhealthy		
		foods, nutrition		
		education and		
		counselling, and		
		settings-based		
		interventions (schools,		
		workplaces, villages,		
		communities). Cancer		
		control: Prevention		
		(including immunisation,		
		HPV and HBV), early		
		diagnosis (including		
		pathology), screening,		
		treatment (e.g.		
		radiotherapy,		
		chemotherapy, surgery)		
		and palliative care for all		
		types of cancers.		
		Implementation,		
		maintenance and		
		improvement of cancer		
		registries are also		
		included. Chronic		
		respiratory diseases:		
		Prevention, early		
		diagnosis and treatment		
		of chronic respiratory		
		diseases, including		
		asthma. Excludes:		
		Tobacco use control		
		(12320), Control of		
		harmful use of alcohol		
		and drugs (12330),		
		research for the		
		prevention and control		
		of NCDs (12382).		
		Research to enhance		
		understanding of NCDs,		
		their risk factors,		
	Research for	epidemiology, social		
12382	prevention and	determinants and	Global public	Knowledge
	control of NCDs	economic impact;	good	generation
	2011.101.01.110.03	translational and		
		implementation		
		research to enhance		
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		operationalisation of cost-effective strategies to prevent and control NCDs; surveillance and monitoring of NCD mortality, morbidity, risk factor exposures, and national capacity to prevent and control NCDs.		
13010	Population policy and administrative management	Population/development policies; demographic research/analysis; reproductive health research; unspecified population activities. (Use purpose code 15190 for data on migration and refugees. Use code 13096 for census work, vital registration and migration data collection.)	Country specific	Priority infections and maternal health conditions
13096	Population statistics and data	Collection, production, management and dissemination of statistics and data related to Population and Reproductive Health. Includes census work, vital registration, migration data collection, demographic data, etc.	Global public good	Knowledge generation
13020	Reproductive health care	Promotion of reproductive health; prenatal and postnatal care including delivery; prevention and treatment of infertility; prevention and management of consequences of abortion; safe motherhood activities.	Country specific	Priority infections and maternal health conditions
13030	Family planning	Family planning services including counselling;	Country specific	Priority infections

		information, education and communication (IEC)		and maternal health conditions
		activities; delivery of contraceptives; capacity building and training.		Conditions
13040	STD control including HIV/AIDS	All activities related to sexually transmitted diseases and HIV/AIDS control e.g. information, education and communication; testing; prevention; treatment, care.	Country specific	Priority infections and maternal health conditions
13081	Personnel development for population and reproductive health	Education and training of health staff for population and reproductive health care services.	Country specific	Priority infections and maternal health conditions
16064	Social mitigation of HIV/AIDS	Special programmes to address the consequences of HIV/AIDS, e.g. social, legal and economic assistance to people living with HIV/AIDS including food security and employment; support to vulnerable groups and children orphaned by HIV/AIDS; human rights of HIV/AIDS affected people.	Country specific	Priority infections and maternal health conditions

Annex 2: DAH+ disbursements by type (constant 2021 USD millions)

	2020	2021	2022
ODA	\$30,000 (79.1%)	\$36,000 (80.2%)	\$40,000 (84.3%)
Private development finance (philanthropic)	\$5,000 (13.1%)	\$5,700 (12.9%)	\$4,700 (9.9%)
G-FINDER	\$3,000 (7.8%)	\$3,000 (6.9%)	\$2,800 (5.8%)
Total	\$38,000 (100.0%)	\$44,000 (100.0%)	\$47,000 (100.0%)

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