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**THE ROLE OF AID IN THE PROVISION OF SEXUAL  
AND REPRODUCTIVE HEALTH SERVICES**

Jesper Sundewall, Björn Ekman, Jessy Schmit



# The Role of Aid in the Provision of Sexual and Reproductive Health Services

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to

The Expert Group for Aid Studies (EBA)

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The researchers are responsible for any errors contained in the report.

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# Foreword by EBA

Sexual and reproductive health and rights (SRHR) are essential determinants of public health as well as drivers of development. SRHR outcomes, such as maternal mortality and antenatal care, have improved over the last decades in parallel with overall development trends. Nevertheless, access to SRHR services remain inadequate, especially in developing countries and among poorer populations. SRHR has long been among the top priorities for the Swedish Government and aid to sexual and reproductive health amounted to over three billion SEK in 2021, which represents around half of all health aid and 6.3 percent of Sweden's total aid.

This report explores what role aid has played in improving access to sexual and reproductive health services over the last two decades. The authors use fixed-effects panel data analysis to study the relationship between aid and the provision of modern contraceptives, skilled birth attendance, and anti-retroviral therapy for HIV/AIDS in 119 developing countries. They conclude that aid indeed has played a role, albeit small, in increasing access to these services, especially in low-income countries. The contribution of aid, moreover, seems to have increased over time, pointing to enhanced effectiveness and a possible learning effect among donors.

We hope this report will find its audience among the Ministry for Foreign Affairs and Sida as well as policymakers and practitioners in SRHR aid in Sweden and abroad more generally. The study has been conducted with support from a reference group chaired by Julia Schalk, Vice Chair of EBA's Expert Group.

The authors are solely responsible for the content of the report.

Stockholm, May 2023



Torbjörn Becker, EBA Chair



Julia Schalk

# Sammanfattning

Sexuell och reproduktiv hälsa och rättigheter (SRHR) är grundläggande för människors välbefinnande och en viktig del av Agenda 2030 och de globala målen för hållbar utveckling. Även om utfall inom SRHR-området har förbättrats under de senaste decennierna kvarstår betydande utmaningar, till exempel vad gäller tillgången till sexuell och reproduktiv hälsovård, särskilt i låg- och lägre medelinkomstländer. En stor andel av dessa länder förlitar sig dessutom på extern finansiering för att tillhandahålla SRHR och andra vårdtjänster, och kommer att göra det även framöver. Men trots den viktiga roll som bistånd spelar är kunskapen om effekterna av SRHR-bistånd på tillgången till sexuella och reproduktiva hälsovårdstjänster i mottagarländer begränsad.

Denna studie syftar till att förbättra förståelsen för vilken roll internationellt bistånd har spelat för tillgången till SRHR. Studien analyserar i vilken utsträckning bistånd påverkat människors tillgång till vård inom SRHR-området. Mer specifikt undersöks vilken roll tre olika klassificeringar av bistånd har spelat för tillgången till tre typer av vårdtjänster inom sexuell och reproduktiv hälsa (SRH): kvalificerad förlossningsvård, moderna preventivmedel och anti-retroviral behandling mot hiv/aids. Den data som samlats in för studien från olika databaser täcker en tidsperiod på 19 år, 2002–2020, och 119 länder (paneldata). Data har analyserats genom statistisk modellering för att uppskatta effekten av bistånd på tillgången till de tre SRH-tjänsterna. Resultaten ger en bild av kopplingen mellan bistånd och tillgången till SRH under tjugoförårsperioden genom att presentera uppskattningar av sambandet mellan bistånd och dessa vårdtjänster.

Analysen visar att bistånd har haft en liten men positiv effekt på de SRH-tjänster som undersökts – kvalificerad förlossningsvård, moderna preventivmedel och antiretroviral behandling mot hiv/aids – under perioden 2002–2020. Resultaten tyder också på att effekten av bistånd har stärkts under tidsperioden, och att den varit större i

låginkomstländer än i lägre medelinkomstländer. Analysen indikerar dessutom att effekten av bilateralt bistånd varit något starkare än andra biståndskällor, exempelvis multilateralt bistånd. Resultaten pekar också på att bistånd har en större påverkan på tillgången till SRH-tjänster när det överstiger en viss andel av ett lands totala hälsoutgifter, vilket kan betyda att biståndet behöver uppnå en viss nivå innan det blir fullt ut effektivt.

Sammanfattningsvis pekar rapportens slutsatser på att SRHR-bistånd bidragit till att öka tillgången till sexuella och reproduktiva vårdtjänster, vilket kan motivera fortsatt bistånd till låginkomstländer för att vidare främja SRHR. Studien visar också att effekterna av SRH-bistånd stärkts under tjugoårsperioden. Detta kan spegla ökad effektivitet och lärande hos givare. Länder som bedriver utvecklingssamarbete inom detta område, såsom Sverige, bör fortsätta arbeta för att förbättra biståndets effektivitet för att säkerställa att de globala målen inom SRHR-området nås.

## Summary

Sexual and reproductive health and rights (SRHR) are integral to people's well-being and a key part of the Sustainable Development Goals (SDGs). Although SRHR health outcomes have improved over the past decades or so, significant challenges remain, including poor access to effective SRHR services, in particular in low- and lower-middle income countries (LLMICs). Furthermore, most of these countries will continue to rely on external funding for these and other health services. However, despite the reliance on official development assistance (ODA), its effects on access to SRHR services remain unclear at the country level.

The purpose of this study is to contribute to an improved understanding of the role that ODA has played for SRHR. The main aim of the study is to estimate the extent to which ODA has had an effect on SRHR services. Specifically, we evaluate the effect of three different classifications of ODA on access to three types of sexual and reproductive health (SRH) service outcomes: access to skilled birth attendants, prevalence of modern contraceptives, and coverage of antiretroviral therapies against HIV/AIDS. As part of the study, we collected data from several sources on 119 LLMICs across 19 years, 2002–2020, (panel data) and applied statistical modelling to estimate the effect of ODA on these services. The results of the analysis provide an indication of the role that ODA has played over this period by presenting estimates of the relationship between ODA and these services.

Our analysis suggests that ODA has had a small, but positive effect on the SRH service outcomes over this period. The results also indicate that the effect of ODA has improved across the period 2002–2020 and is larger in low-income countries compared to lower middle-income countries, and that the effect of bilateral ODA is somewhat stronger than other sources of aid, such as multilateral sources. ODA also appears to be more effective if it reaches a certain share of overall health spending, which may indicate the need to

reach a certain level before it becomes fully effective. The results of the study lend support to the continued allocation of ODA to low-income countries to support the provision of SRHR services. Countries that provide ODA, like Sweden, would be advised to continue enhancing the effectiveness of development assistance to ensure the achievement of the SDGs in this area.

# Introduction

Sexual and reproductive health and rights (SRHR) are central to people's health and well-being and to the economic development of countries. SRHR concerns physical, emotional, psychological, and social well-being in relation to all aspects of sexuality and reproduction. Importantly, SRHR entails the right of all people to control their own bodies and to have access to healthcare and other health promotion services. Extensive research has highlighted the important benefits to individuals, communities, and society more broadly of investing in SRHR (Kaiser et al., 2021; Starrs et al., 2018; United Nations Population Fund, 2019). Consequently, SRHR is seen as a cornerstone of human development, which is illustrated through SRHR being reflected in several of the sustainable development goals and targets.<sup>1</sup> Through international agreements, such as the Programme of Action of the International Conference on Population and Development (ICPD), developing countries and their development partners have committed to enhancing investments in SRHR (United Nations Population Fund, 2014).

Along with several other health outcomes, measures of SRHR health outcomes have improved in most low- and lower-middle-income countries (LLMICs) over the past decades or so. Among other things, maternal mortality rates have gone down, and the health of children and adolescents has improved. Studies across countries and regions have shown that these improvements are the result of several factors, including overall economic and social development (Khorrami et al., 2019). Higher incomes and enhanced schooling of girls have strengthened the situation of women in many countries which, in turn, has contributed to reduced levels of poverty. That said, the critical lesson from the 2018 Guttmacher-Lancet

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<sup>1</sup> For example, target 3.1 – Reduce maternal mortality, target 3.7 – Ensuring universal access to sexual and reproductive care, family planning and education, and target 5.6 – Ensuring universal access to sexual and reproductive health and reproductive rights.

commission on SRHR was that there is an unfinished agenda with respect to improving the SRHR of people in LLMICs and that “[...] almost all of the 4.3 billion people of reproductive age worldwide will have inadequate sexual and reproductive health services over the course of their lives” (Starrs et al., 2018). The manifestation of this inadequacy is that each year, more than 30 million women do not give birth in a health facility, 45 million women have no or inadequate antenatal care, more than 200 million women want to avoid pregnancy but lack access to modern contraception, and some two million women and men are infected by HIV (Starrs et al., 2018).

While challenges exist in all countries and regions, the vast majority of these and the related disease burden are located in low- and lower-middle-income countries (Ravindran & Govender, 2020; Requejo et al., 2020). Table 1 presents recent average values of the main sexual and reproductive health (SRH) service indicators and outcomes across income groups (according to the World Bank), which clearly illustrate that the bulk of the SRHR disease burden is concentrated in LLMICs. For example, maternal mortality is, on average, ten times higher in low-income countries compared with upper-middle-income countries.

**Table 1. SRH indicators by income group classification compared to global averages and SDG targets**

<b>SRH Indicators</b>	<b>LIC</b>	<b>LMIC</b>	<b>UMIC</b>	<b>HIC</b>	<b>Global</b>	<b>Year</b>	<b>SDG target</b>
Adolescent fertility (births per 1,000 women ages 15-19)	91.7	40.7	29.3	11.2	41.1	2020	
Contraceptive prevalence, any modern method (% of married women ages 15-49)	30.8	48.3	73.5	NA	55.75	2019	
Antiretroviral therapy coverage (% of people living with HIV)	77.6	NA	NA	NA	72.0	2020	UC
Births attended by skilled health staff (% of total)	66.7	77.3	98.6	98.7	82.6	2019	UC
Pregnant women receiving prenatal care at least once (%)	81.9	86.1	98.2	NA	88.0	2019	UC
Maternal mortality ratio (per 100,000 live births)	453	253	41	11	211	2017	70
Neonatal mortality rate (per 1,000 live births)	26.4	21.8	5.7	2.7	17.0	2020	12
Under-5 mortality rate (per 1,000 live births)	66	44.9	11.2	4.9	36.6	2020	25

Note: Income groups are indicated as defined by the World Bank in 2021. Year indicates the latest year for which data was available for all income group aggregates in the WDI database.

Abbreviations: HIC, high-income countries; LIC, low-income countries; LMIC, lower-middle-income countries; NA, not available; UMIC, Upper middle-income countries; UC, Universal coverage; SDG, Sustainable Development Goals.

Data Sources: WDI.



However, LLMICs have limited resources to effectively tackle challenges related to SRHR. Most LLMICs are, to a varying degree, relying on aid in the form of Official Development Assistance (ODA) <sup>2</sup> for financing SRHR and other health services (Piemonte, 2020). In low-income countries, ODA accounts for, on average, 20 percent of health spending (World Bank, 2021). SRHR services are particularly dependent on sustained levels of ODA. To reach the sustainable development goal (SDG) targets and to continue improving outcomes in SRHR, most low-income countries will require substantial additional ODA (referred to as SRH-ODA henceforth) and other types of support over the coming years.

However, several issues and challenges remain with respect to SRHR developments. First, improvements in SRHR outcomes within and across countries have been uneven. In some countries, access to, for example, family planning services and contraceptives, may even have been reduced due to both economic and political factors. Second, the country-level evidence on the effectiveness of SRH-ODA to improve access to services and health outcomes is still limited. Studies on the effectiveness of ODA have focused on broad development goals such as economic growth and democracy (Arndt, et al., 2015; Herzer & Nunnenkamp, 2012; Lee et al., 2016; Niño-Zarazúa et al., 2020) while relatively few studies have investigated the effect of ODA on welfare-related outcomes (e.g., health, gender equality) and even less on SRH services and specific SRH outcomes. Indicators for SRH outcomes have been broadly classified into SRH service coverage indicators – or healthcare-level indicators (e.g., modern contraceptive prevalence and antenatal care coverage) – and downstream health impact indicators (e.g., maternal mortality, HIV incidence) (Kibira et al., 2021; World Health Organization, 2006).

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<sup>2</sup> In this report we use the terms ODA, aid, development assistance and external assistance interchangeably.

## Purpose of the study

Supporting advancements in SRHR globally has for many years been a priority for the Swedish Government. SRHR support constitutes a large share of Swedish ODA. In 2021, SRH-ODA amounted to 3,290 million SEK, representing about 50 percent of Swedish ODA for health and 6.3 percent of total Swedish ODA (Utrikesdepartementet & Sida, 2022). Given the priority of SRHR for the Swedish government, it is particularly relevant to understand the effects of SRH-ODA on key SRHR indicators.

Consequently, the purpose of our study is to contribute to an improved understanding of the relationship between SRH-ODA disbursed during the period 2002–2020 and key SRHR indicators. More specifically, we aim to address this issue by conducting an analysis of the effects of SRH-ODA on changes in service outcome indicators. To achieve this, we use a purposive panel data set of 119 LLMICs across the years 2002 to 2020 to estimate the effects of development assistance on three SRHR service outcome indicators for which there are sufficient data: prevalence of modern contraceptive use; skilled birth attendance (SBA); and coverage of anti-retroviral therapies (ART) for HIV/AIDS. The effects of development assistance are measured by modelling the relationship between three different measures of health-related ODA and the service outcomes while controlling for a set of factors that may also affect these outcomes. The panel structure of the data allows for controlling for some, although not all, of the factors that may otherwise lead to biased and inconsistent estimates of the effects of ODA on these outcomes.

## **Evaluating the effects of official development assistance on outcomes**

Development assistance operates on several levels and is administered through many different channels. Understanding the effects of ODA on selected and relevant outcomes necessarily requires adopting a multi-pronged approach with different types of analyses that rely on various sources of data and information. Furthermore, the development process as such, of inducing change across a range of economic, social, and political domains with the aim of improving the lives of individuals, is a complex process that is only partly understood. Consequently, any attempt at investigating the effects of development assistance needs to be based on a sound analytical or theoretical framework, employ rigorous methods using relevant data, while acknowledging the scope and limitations of the analysis.

Given these general considerations, approaches to evaluations of development assistance can broadly adopt either of two perspectives: macro-level analysis and micro-level analysis. Macro-level analyses look at the effects of ODA on national, sub-national, or sector (meso) levels. Micro-level analyses investigate the effects of specific interventions or projects on the level of individuals or households. Furthermore, studies can use either qualitative or quantitative (statistical) research methods, or a combination of these two types of methods (mixed-methods). Each of these approaches can address specific questions and thereby contribute in different ways to the overall evidence of the effects of ODA on relevant outcomes.

The general aim of a quantitative approach, such as statistical or econometric modelling, is to obtain an estimate of the effect of an intervention (such as a reform, policy program, or, in this case, the allocation of financial resources) on some relevant outcome (such as GDP growth, poverty reduction, or as in the current case, changes in service utilization). A challenge, and limitation, when conducting a quantitative analysis on the macro-level is that the unit of analysis

(e.g. countries) cannot be randomly allocated to, in this case, either receive aid or not receive aid. An implication of the inability to randomize countries is that the estimated effects will only provide indications of the strength and size of the effects of aid on the outcomes. As the changes in the outcomes of interest are most likely determined by several factors, some of which can be measured with the available data and others that cannot be measured, it is important to adopt methods that can limit the problems of non-random allocation (see Methods section below for details). Nonetheless, along with other types of evidence, the findings of such analyses will constitute a valuable contribution to the general question of the role of development assistance.

## **Outline of the report**

In the next section, we provide a background for the report including an overview of the current evidence on the effects of health ODA on SRHR outcomes. This overview is based on a recent systematic review of the literature. Section three of the report describes our analytical framework for the study of the effect of health ODA on the identified SRH outcomes. We believe that this framework provides a useful guide to our investigation of the complex relationship between development assistance and the outcomes of interest. It also facilitates the interpretation of the findings of the study. The following section describes the data and the methods that we use in the analysis. Further details and the technical aspects of our econometric modelling can be found in the annexes of the report. Section six presents the findings of the study. In the subsequent section, we discuss our findings with a view to providing a critical assessment of their broader policy implications. In the final section, we draw a set of conclusions, highlighting the contributions of the study to existing evidence and ideas for how to further enhance our understanding of the role of development assistance for health to improve the SRH and well-being of people in low- and lower-middle-income countries.

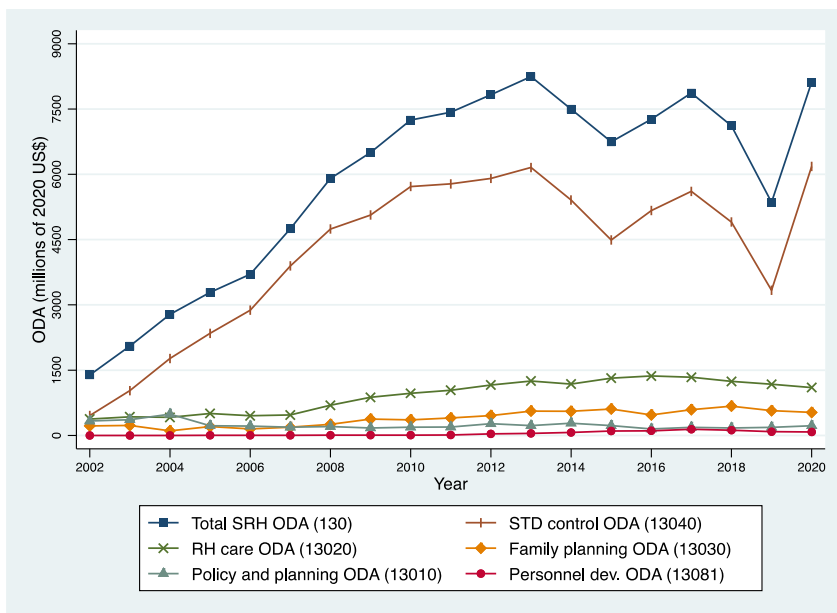
## Background and literature review

### **What is ODA for sexual and reproductive health?**

For this study we define all ODA disbursed under OECD-DAC sector code group 130 as “SRH-ODA”. ODA classified under this group of sector codes can be traced back to the International Conference on Population and Development (ICPD) in Cairo in 1994. The 1994 ICPD-conference was the starting point for the first global commitments to the importance of sexual and reproductive health. The Conference’s Programme of Action listed ways in which countries should work to improve reproductive health and rights and access to family planning and to combat sexually transmitted diseases (United Nations Population Fund, 2014). SRH-ODA has since primarily been reported under this group of sector codes.

Even so, SRH-ODA reported under sector code group 130 covers a wide range of development assistance and any attempt at describing a “typical” intervention will suffer from serious limitations. The three largest (in financial terms) sector codes, however, include reproductive health care (13020), family planning (13030) and STD control, including HIV/AIDS (13040). Reproductive health care covers interventions promoting prenatal and postnatal care including delivery; prevention and treatment of infertility; prevention and management of consequences of abortion; safe motherhood activities. Family planning refers to programs supporting counselling; information, education and communication activities; delivery of contraceptives; capacity building and training. Finally, STD control including HIV/AIDS encompasses all activities related to sexually transmitted diseases and HIV/AIDS control, e.g., information, education, and communication; testing; prevention; treatment, and care.

**Figure 1. ODA disbursements to SRH – sector code group 130 – to 119 low-and lower-middle-income countries, 2002–2020 (in USD millions, 2020 constant)**



Source: OECD-DAC database.

Development agencies support different types of activities under each of these sector codes, ranging from pure service delivery-oriented programs (e.g., providing maternal health services, supplying contraceptives, and providing HIV treatment) to more policy- and advocacy-related activities (e.g., supporting civil society advocacy for access to reproductive health services or promoting changes for improving access to contraceptives). Our analysis explores the effects of these different types of interventions as a package. Therefore, it is not possible based on our approach, to draw conclusions regarding the effects of specific SRHR interventions.

## **Review of the literature**

As part of this study, we undertook a systematic review of published, peer-reviewed and grey (or, non-peer reviewed) literature on the effects of ODA on SRHR indicators and outcomes. More specifically, we set out to determine: what is the existing evidence of the effects of ODA on SRHR outcomes in low-and lower-middle-income countries? Consistent with the components of SRHR presented in the Guttmacher-Lancet report (Starrs et al., 2018), outcomes of interest for the review included gender-based violence (GBV), maternal and new-born health, abortion, HIV/AIDS, other sexually transmitted diseases, reproductive cancer, family planning and female genital mutilation (FGM). Menstrual health was also included. We reviewed literature covering the years 2002–2020 to match the period of the data collected for this study. Below follows a summary of this review. The review was limited to quantitative studies that made a claim at measuring or evaluating the effect of ODA. The full details of the systematic review, including search strategy and reference list, are provided in Annex I.

### **Evidence of effects of sexual and reproductive health ODA**

From a total of 1,619 unique articles identified in the search, 25 met the eligibility criteria and were included in the review. Studies were published during the period 2002–2020 but covered ODA disbursed or committed from 1968 to 2015, with most studies analysing the effects of funding provided between 1990 and 2010. In all, seven extracted studies specified the geographic region of aid recipients, five of which focussed on sub-Saharan Africa and two on southeast Asia.

Results from the review indicate large variations in how ODA was defined and how outcomes were evaluated. While most studies relied on ODA data from the OECD-CRS database, different terms were

used to describe this, for example “ODA”, “foreign aid” and “aid for health”. In terms of outcomes, infant health emerges as a dominant topic in the current literature, with 13 of 25 studies focussing on infant mortality as an outcome. Other studies focussed largely on HIV/AIDS (five studies), or maternal health and related service provision (six studies). Three studies analysed the effects of ODA on family planning and only one study addressed abortion as an outcome. Notably, gender-based violence, reproductive cancers, sexually transmitted diseases other than HIV/AIDS, FGM and menstrual health were absent from the results, indicating considerable gaps in the current literature.

In summary, the evidence suggests that ODA has had a positive effect on the outcomes studied, which were infant health; maternal health; HIV/AIDS; family planning and abortion. That said, there are studies that did not find a positive effect of ODA. Results of the effect of ODA on infant mortality rates are mixed where four studies found evidence that ODA significantly reduces the infant mortality rate (IMR) (Akinlo & Sulola, 2019; Islam, 2003; Kotsadam et al., 2018; Win & Cho, 2018), while three other studies do not detect any significant effect of ODA on IMR in their analyses (Arndt et al., 2015; Pallas & Ruger, 2017; Toseef et al., 2019). The picture for maternal health is similar where one study finds evidence for ODA leading to a significant reduction in maternal mortality (Pickbourn & Ndikumana, 2016), and another study that looked at UK aid estimates that health and family planning programming have saved 103,000 women’s lives between 2010 and 2014 (Friberg et al., 2017). However, two other studies show mixed results, with one study reporting contradictory effects depending on the type of financing provided by the World Bank (Coburn et al., 2017), and another study finding that only aid allocated directly to the reproductive or maternal health sector reduced maternal mortality (Banchani & Swiss, 2019).



Regarding HIV/AIDS, evidence also provides a bit of a mixed picture where two studies reported that ODA has an effect on reducing HIV/AIDS-related mortality (Hsiao & Emdin, 2015; Nunnenkamp & Öhler, 2011). However, evidence for ODA lowering the HIV/AIDS incidence is inconclusive, (Lee et al., 2016; Nunnenkamp & Öhler, 2011). Two studies evaluating the effect of ODA on the HIV/AIDS prevalence found no evidence (Lee et al., 2016) and mixed evidence (Yogo & Mallaye, 2015) of a significant effect of ODA, respectively. One study showed that increases in foreign aid for HIV contributed to an increased antiretroviral therapy coverage in 13 African countries (Bendavid et al., 2010). For family planning, evidence was even more limited. One study observed that ODA significantly reduces adolescent fertility rates (Zhuang et al., 2020), and another showed that USAID family planning funding significantly increased the prevalence rates of modern contraceptives (Shepard et al., 2003). Finally, only one study evaluated the effect of ODA on abortion, but this was limited to the impact of the Mexico City Policy program under the Trump administration of 2016–2020 (Brooks et al., 2019).

## **Quality of evidence**

Overall, the quality of evidence for the effects of ODA on SRH outcomes was assessed as moderate. None of the studies included in this review were experimental in study design. Most studies (n=14) applied a fixed effects analysis using panel data, which is similar to the approach that we adopt in our analysis. Three of the studies could be described as quasi-experimental in nature, using a difference-in-difference analytical approach. Although they do not employ randomization, both fixed effects and DiD provide some evidence as to a possible causal relationship between ODA and SRH outcomes. The remaining studies were observational, except for one which used a structural causal model. Out of the 25 studies that met the eligibility criteria, all except one have been published in peer-reviewed journals. This lack of grey literature in the final review

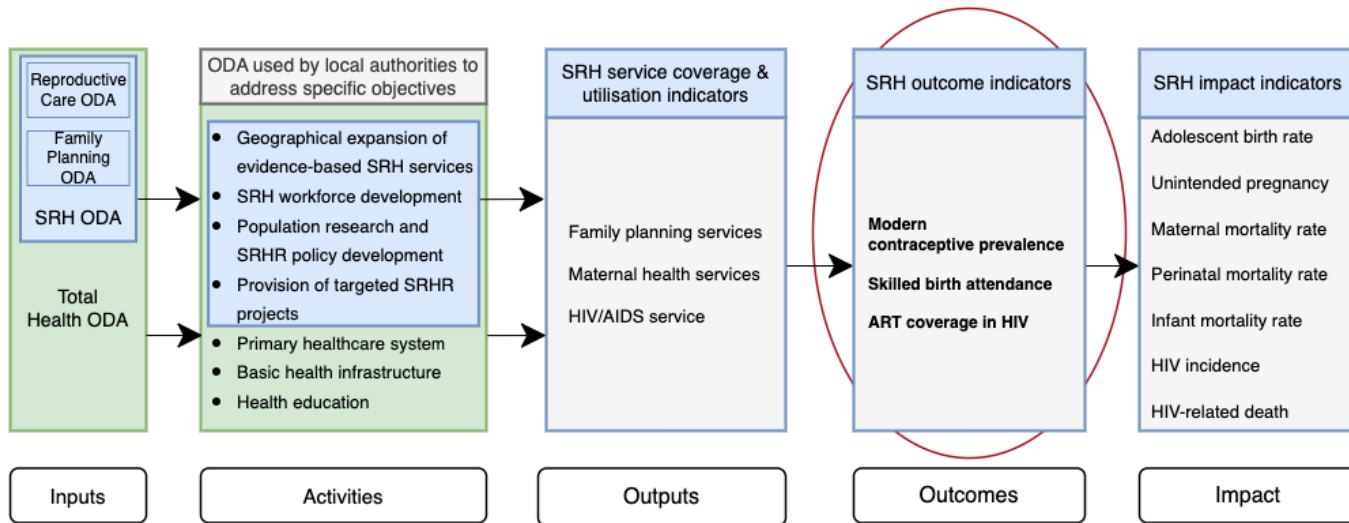
indicates that grey literature largely did not meet the eligibility criteria specified, with reported effects assessments being qualitative or lacking in statistical analysis. The large differences between the studies in terms of study design, definition of ODA and outcomes measured make it difficult to say something conclusive about both the completeness and the quality of the evidence.

# Analytical framework

The statistical analysis of this study is guided by an analytical framework that describes the process of investing in health broadly, and in SRHR more specifically. The framework builds on the existing knowledge and understanding of this process and helps to identify the objectives of the study. Development assistance for health is provided to improve the health of populations in recipient countries. In the SDG framework, child mortality and maternal mortality are of particular importance. Ultimately, external support is provided to reduce poverty and improve the well-being of populations. However, attributing the direct effect of development assistance to these distal outcomes is difficult (Addison et al. 2005; Sumner & Glennie, 2015). Consequently, we focused our analysis on the effects of ODA on SRH service outcomes on which there are reliable data. The analytical framework is illustrated in Figure 2.

As noted above, we adopt this approach to investigate the effects of various types of development assistance for health on a set of measures of access to and coverage of SRH services. The framework captures the process of financial and other inputs to enhance the coverage of SRH services, which, in turn, is assumed to improve longer-term SRH outcomes, including mortality rates, pregnancy rates, and HIV-related morbidity and mortality rates.

**Figure 2. Analytical framework (study focus is highlighted in red)**



Source: Authors.

# Data and methods

## Data

In this study, we evaluate the effects of development assistance on the coverage of key sexual and reproductive health services of recipient populations on a macro level, i.e. at the country level, which is the study's unit of analysis. To meet this end, we collected openly available country level data on a range of SRH and other indicators (see Annex V for full details). The main databases from which the data were collected include the World Development Indicators (WDI) and the World Governance Indicators (WGI) of the World Bank. Data on ODA were collected from the OECD's Creditor Reporting System (CRS) database.

A total of 119 countries were included in the sample. All these countries were classified as either low-income or lower-middle-income by the World Bank in 2002.<sup>3</sup> Data on these indicators cover the years 2002 to 2020, i.e. a period of 19 years. The year 2002 was when data on ODA disbursements for the sample became available and 2020 was the most recently available year for the data at the time of data collection. Table 2 presents descriptive statistics for the sample of countries.

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<sup>3</sup> See <https://datahelpdesk.worldbank.org/knowledgebase/articles/906519> for details.

**Table 2. Mean values for key variables for 2002–2020 for sample of 119 LLMIC, stratified by income classification in 2002**

Variables	LIC 2002		LMIC 2002		Total Sample	
	N	Mean 2002–2020	N	Mean 2002–2020	N	Mean 2002–2020
Skilled birth attendance (%)	428	68.22	522	93.62	950	82.17
Contraceptive Prevalence (%)	334	30.55	171	46.86	505	36.07
ART coverage (%)	1,176	23.38	661	29.00	1,837	25.40
Total health ODA, US\$ millions	1,226	171.4	1,009	42.21	2,235	113.1
SRH-ODA, US\$ millions	1,226	74.93	960	20.01	2,186	50.81
RH-ODA, US\$ millions	1,223	12.74	892	1.999	2,115	8.211
Total health ODA, US\$ pc	1,226	10.25	1,009	15.69	2,235	12.71
SRH-ODA, US\$ pc	1,226	3.851	960	3.495	2,186	3.695
RH-ODA, US\$ pc	1,223	0.688	892	0.348	2,115	0.545
GDP per capita (constant, PPP)	1,148	4,027	970	10,231	2,118	6,868
GHE as share of CHE	1,106	29.42	918	53.52	2,024	40.35
Government Effectiveness (0-5)	1,224	1.601	1,004	2.166	2,228	1.855

<b>Variables</b>	<b>LIC 2002</b>		<b>LMIC 2002</b>		<b>Total Sample</b>	
	<b>N</b>	<b>Mean</b>	<b>N</b>	<b>Mean</b>	<b>N</b>	<b>Mean</b>
		<b>2002–2020</b>		<b>2002–2020</b>		<b>2002–2020</b>
Corruption Control (0-5)	1,227	1.679	1,013	2.145	2,240	1.890
Population Density (per sq. km)	1,215	114.3	999	136.9	2,214	124.5
Primary school enrolment (% gross)	922	102.1	799	104.9	1,721	103.4
Female labour market part. (%)	1,235	57.98	931	41.45	2,166	50.87
Number of countries		65		54		119

Note: The unit of observation is country-year. There are a total of 2,261 observations in the pooled sample. The data covers the period 2002–2020. The panel is unbalanced meaning that not all countries have observations for 19 years. Government effectiveness and control of corruption are scored between a low of 0 and a high of 5. (CHE, Current health expenditure; GHE, Government health expenditure).

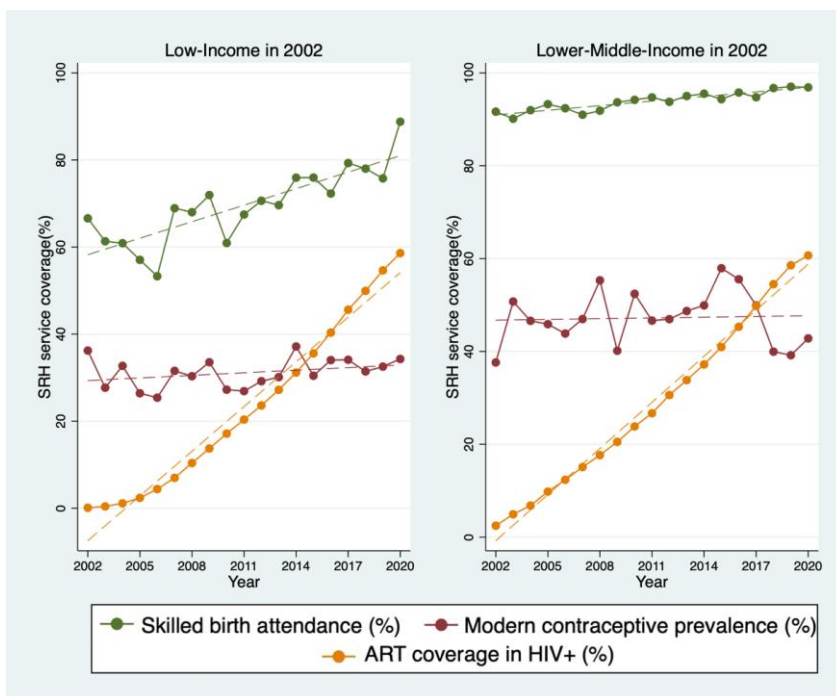
Data Sources. OECD-CRS, WDI, WGI.

In all, there are 2,261 observations (country-year) in the final sample of countries. Around 55 percent of the countries were classified as low-income in 2002. During the sampling period, some of the countries transitioned from one income classification to another, mainly from low-income to lower-middle-income. While service coverage is generally higher in lower-middle-income countries than in low-income countries, these transitions are not expected to affect the analysis. Annex V includes the complete list of sample LLMICs included in the study with their income classifications in 2002 and 2020, respectively.

Figure 3 shows the changes in the average service coverage rates for the sample countries over the period of analysis. The figures show that both skilled birth attendance and ART coverage have improved over the period, in particular ART coverage. However, it should be noted that ART coverage started from a level close to zero as it was not broadly offered until around 2002–2003. Contraceptive prevalence, on the other hand, has remained at relatively similar levels over the period, in both LICs and LMICs.



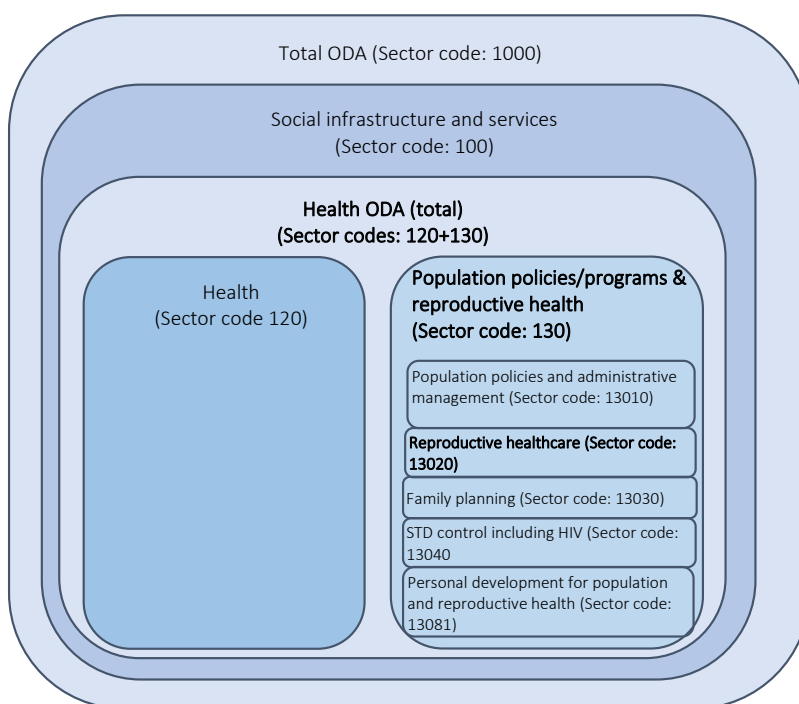
**Figure 3. Average SRH service coverage in low-income countries compared to lower-middle-income countries, 2002–2020**



Three measurements of ODA were used in the analysis: Total health ODA, sexual and reproductive healthcare ODA (SRH-ODA), and reproductive healthcare ODA (RH-ODA). As described above, each measurement consists of one or more “sector codes” in the OECD CRS database. All disbursements, including grants and loans, under each of the sector codes were included. Total Health ODA consists of sectors 120 and 130 combined, SRH-ODA includes all ODA under sector code 130, and RH-ODA consists of disbursements under sector code 13020. Including different measures of ODA was considered important because of the overlaps between ODA-funded programs (for example some broader health programs also support SRH, this is particularly the case for maternal health) and because of inconsistencies in reporting ODA statistics (for example, some SRH support is reported as “basic health care” and vice versa). In addition,

by including several measurements of ODA, we can compare effects between different health ODA classifications and reduce the likelihood of the problem of measurement error, which may affect the accuracy of the effect estimates. Figure 4 illustrates the type of ODA included in each measurement.

**Figure 4. Overview of data included in Total health ODA, SRH-ODA and RH-ODA, respectively**



Note: Headings in 120 and 130 combined bold show ODA measurements used in this study. Total health ODA consists of sector codes.

Source: Authors.

## Methods

Evaluating the effects of development assistance on the identified outcomes is difficult for several reasons. First, measures of ODA are not always accurate. This may be particularly so for development assistance to specific areas of SRH but also with respect to measures of service coverage and possibly also other variables. Consequently, the imperfect measures of the main analytical variable may pose a problem for the validity of the estimation results. Second, the econometric model may be affected by the problem of endogeneity (or unobserved confounding). A common reason for endogeneity in empirical analysis is the potential failure to include a factor that determines the outcome and that is also associated with any of the included variables which would lead to biased and inconsistent estimates of the effect (Wooldridge, 2010). And finally, the estimation may also be affected by the problem of simultaneity if the values of the outcome variable are affected by the values in preceding periods through some dynamic aspect of the process generating the data. This implies that our findings cannot be interpreted as a causal effect.

In light of these methodological challenges, our main approach is to use the so called fixed-effects (FE) panel data analysis. This approach allows for the estimation of the effects of development assistance on our selected outcomes while controlling for both observable factors (i.e. factors that we can measure and include in the analysis) and for time-constant unobserved factors (i.e. factors that are relatively stable over time in a certain country but that we do not have data on). Examples of such factors are religious beliefs, social norms and values, the quality of the countries' institutions and health system, and public management capacity, including the ability to make effective use of the aid received. It is likely that these and similar factors also have an impact on the SRH services that we focus on.

Regarding economic factors, the log of income per capita (GDP) is included in the model to account for a country's state of economic growth/development. A higher GDP has been associated with higher primary care utilization, including SRH services as well as maternal health outcomes (Arsenault et al., 2020). The model also includes public domestic health expenditure as a share of current health expenditure (GHE/CHE), which captures a government's investment in healthcare and citizens' human capital. A domestic healthcare financing structure with a large share of public spending (relative to private and out of pocket expenditure) is expected to be favourable for SRH service provision (Novignon et al., 2012; Ravindran & Govender, 2020).

Next, the model includes indicators of corruption and government effectiveness indexes from the World Governance Indicators (WGI) database to account for the influence of governance quality on health service delivery. Good governance may promote service access through stronger administrative institutions, better policies, and improved resource utilization and allocation (Lee et al., 2016; Makuta & O'Hare, 2015).

Primary school enrolment (gross shares) and the female labour market participation rate (among women above the age of 15) are added to control for the population education level and female empowerment. Across the world, there is evidence that empowerment through education, labour, and political participation are enabling factors for healthcare utilisation, including SRH services (Arsenault et al., 2020; Dickson et al., 2021; Khatiwada et al., 2020).

Finally, the model accounts for population density (number of people per square kilometre of land) as higher density may improve service access by generating economies of scale in healthcare provision (OECD/EC-JRC, 2021). A higher share of urban population and national population density have been shown to be positively related to accessing maternal health services, including antenatal care visits and skilled birth attendance (Hanlon et al., 2012). Our main specification measures ODA in per capita terms (constant 2020 USD)

to determine the effect of ODA after accounting for countries' population sizes. Technically, the model is based on a linear function, which provides estimates of the absolute change (percentage points) in SRH service coverage associated with a USD per capita change in health ODA disbursement. The findings from this approach are presented in the results section.

To assess the robustness of the results, we perform a series of sensitivity analyses with respect to missing values, measurement error, potential outliers, model specification, and reverse causality (the results of these analyses are presented in Annex IV). First, to compensate for the missing values of certain observations, we impute values using interpolation (i.e. inserting values based on the values before and after the missing values). Using imputed values in the estimation of the main models did not affect the main results of the analysis. Additionally, to address the risk of measurement error, we averaged each variable over three-year periods giving a panel dataset of 119 countries measured over six 3-year periods.<sup>4</sup> This reduces the variation in the yearly time-series data to provide more stable observations. Overall, the use of the three-year average values along with the other sensitivity analyses resulted in estimates that were in line with the main results of the analysis.

Second, the potential problem of a strong influence of outliers (observations with values very far from the average values) was investigated by using plots to identify such observations and calculating Cook's Distance statistics. The main models were estimated after removing Cook's Distance outliers and two additional outlier robust FE estimators were employed (the so-called S-estimator and the MM-estimator). Adjusting the main models for some of the potential outliers affected the coefficient estimates for some of the variables but did not affect the main results of the analysis.

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<sup>4</sup> The six three-year periods being 2003–2005, 2006–2008, 2009–2011, 2012–2014, 2015–2017, 2018–2020.

Third, to assess the sensitivity of the main models to the functional form of the main measures, we re-estimated the models in the log-log specification. We used the logarithmic values of all variables, including development assistance measures (in millions USD). This log-log form measures elasticities, i.e. the percentage change in SRH service outcomes associated with a 1 percentage change in SRH-ODA disbursements. The use of the alternative functional form variables affected the statistical significance of some of the effects of ODA on these outcomes but did not alter the main results more generally.

Fourth, it is possible that the effects of ODA are not contemporaneous such that ODA allocated in one year only affects the outcomes in the following years. We adjusted our main models to investigate such a delayed effect by using lagged values of health ODA ( $ODA_{t-1}$ ) and other independent variables ( $X_{t-1}$ ) as regressors for current service coverage. The results of this adjustment suggest that ODA may indeed have delayed effects on these outcomes in the sense that our main results were somewhat strengthened by the adjustment.

Finally, to account for a potential dynamic relationship between ODA and SRH services (i.e. previous levels of SRH services determine current ODA allocation and service coverage), we implemented what is sometimes called a two-step system-general method of moments (GMM) estimation, characterized by the inclusion of the lagged dependent variable (service coverage) among the regressors. Next to the maximum likelihood estimation and structural equation modelling (ML-SEM) approach (Moral-Benito et al., 2019), GMM estimators are most commonly used to estimate dynamic panel models (Baltagi, 2021). The results of these alternative estimation approaches were broadly in line with our main findings.

## Limitations

The area of SRHR is large and comprises a range of different types of services and health outcomes (Starrs et al., 2018). While it would be interesting to analyse the effects of development assistance on this area as a coherent entity, this is not possible for several reasons.

First, data on some SRHR outcomes are not available, in particular with respect to the “rights” aspects of SRHR. This study is therefore primarily focused on SRH indicators. Second, treating SRHR as a single object would risk hiding the effects of development assistance on the indicators of SRHR that we are interested in. Third, data on development assistance to some specific aspects of SRHR are not easily obtained. Consequently, we have opted to look at those areas of SRHR where data are available for sufficiently long periods of time to be able to use the analytical approaches that we believe will support our investigation. Limiting the analysis to these services will help us understand the effect of ODA more broadly.

The limitation of the fixed-effects approach to modelling the data is similar to that of most other approaches, namely that it cannot control for all factors or completely overcome the problem of non-randomized selection. In this case, we cannot control for country specific factors that we do not have data on and that change over time. Although identifying such factors is difficult, it is not inconceivable that they do exist and thereby affect the accuracy of the estimates. By also employing complementary approaches to compensate for this limitation in handling the possible confounding problem, our analysis can contribute to the general, macro-level understanding of the effects of development assistance for SRH on these service outcomes.

# Results

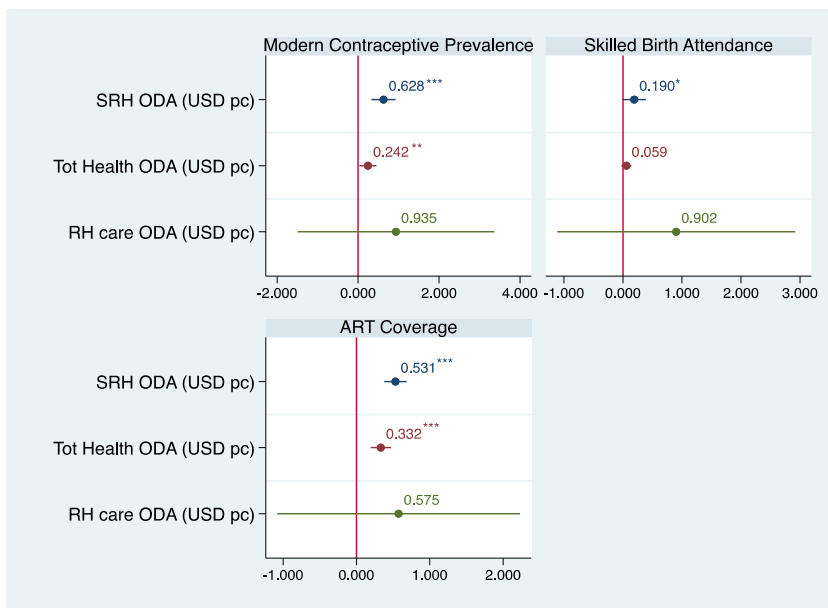
This section presents the results of the econometric analysis. We first present the main results and then describe some additional results of relevance. We then present the results of the sensitivity analysis. Detailed results are presented in Annex II.

## Main results

The main finding of our analysis suggests that development assistance for health and for SRH has had, on average, positive effects on service coverage during the period 2002–2020 in our sample of countries. Figure 5 illustrates the effect estimates of the three different measures of ODA across the investigated types of services. More specifically, we see that SRH-ODA have statistically significant positive effects on all three outcomes measured (as they do not cross the red vertical line showing statistical significance). Total health ODA is estimated to have a positive effect on two out of three outcomes. A 1 USD per capita increase in SRH-ODA would then, on average, be associated with a 0.628 percentage point increase in contraceptive prevalence, a 0.190 percentage point increase in skilled birth attendance and a 0.531 percentage point increase in ART coverage (see Figure 5). With respect to RH-ODA, the results suggest that also this type of ODA was, on average, positively associated with service coverage. However, these results were not statistically significant.



**Figure 5. Overall effects of ODA, 2002–2020**



Note: Horizontal lines that cross the red vertical line show effects that are statistically not significant. The rope-ladder plot shows markers for point estimates, and spikes for confidence intervals at 95% levels. \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ .

Source: Authors.

## Coverage of modern contraceptives

Concerning the coverage of modern contraceptives, the analysis suggests that ODA has, on average, had a positive effect on this outcome over the study period (see Table 3 and Figure 6).

**Table 3. Effects of ODA per capita on modern contraceptive prevalence (Main FE estimation)**

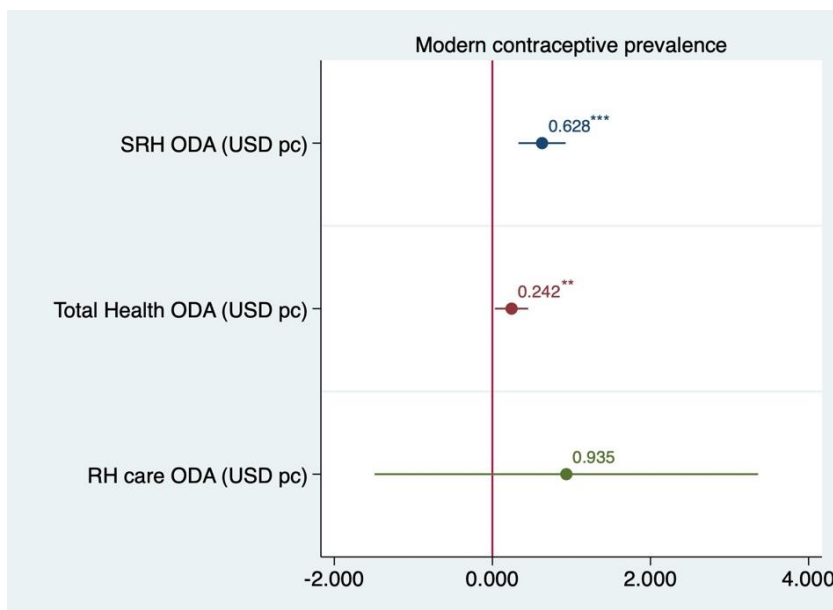
<b>Variables</b>	<b>SRH-ODA</b>	<b>Total health ODA</b>	<b>RH-ODA</b>
Health ODA	0.628*** [0.330 - 0.926]	0.242** [0.032 - 0.453]	0.935 [-1.490 - 3.361]
Controls	YES	YES	YES
Two-way FE	YES	YES	YES

Note: Standard errors are clustered at the country level. \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ , and 95 % CI in brackets.

Data sources: OECD-CRS, WDI, WGI.

More specifically, the analysis indicates that Total health ODA and SRH-ODA had statistically significant positive effects on modern contraceptive prevalence over the sampling period. Looking at SRH-ODA, in our sample of LLMICs, a 1 USD per capita increase in SRH-ODA (e.g. an increase from 3 to 4 USD per capita) is, on average, associated with a 0.628 percentage point increase in the contraceptive prevalence rate (e.g., an increase from 20.0 percent to 20.628 percent). This suggests that to increase the contraceptive prevalence rate from the average of 30.55 percent for LICs 2002–2020 to, for example, 35 percent, SRH-ODA would have to increase from, on average, 3.85 USD/capita to 10.40 USD/capita, (i.e. an increase of SRH-ODA of 6.54 USD/capita or, equivalently, more than double in size). In Annex IV, tables A9-A12, results are shown for alternative specifications of the models along with their interpretations.

**Figure 6. Size effects of ODA on modern contraceptive prevalence**



Note: Estimates are based on main FE estimation. The rope-ladder plot shows markers for point estimates, and spikes for confidence intervals at 95% levels. \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ .

## Coverage of skilled birth attendants

Table 4 presents the findings of the analysis of the effects of ODA on country level rates of skilled birth attendance.

**Table 4. Effects of health ODA per capita on skilled birth attendance (Main FE estimation)**

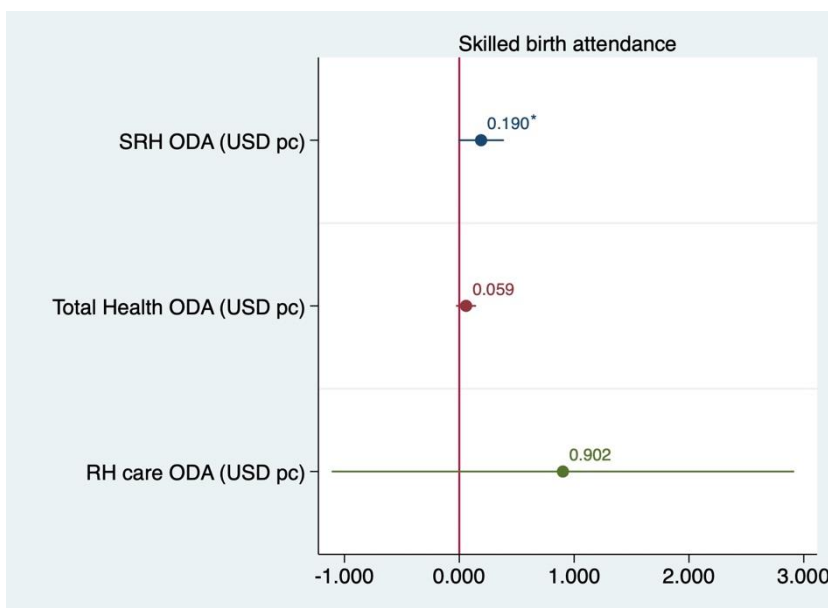
Variables	SRH-ODA	Total health ODA	RH-ODA
Health ODA pc	0.190*	0.059	0.902
	[-0.009 – 0.389]	[-0.028 – 0.146]	[-1.111 – 2.916]
Controls	YES	YES	YES
Two-way FE	YES	YES	YES

Note: Standard errors are clustered at the country level. \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ , and 95% CI in brackets.

Data sources: OECD-CRS, WDI, WGI.

The findings suggest that ODA has had a small positive contribution to skilled birth attendance in the sample of countries during this period. However, apart from SRH-ODA, the positive effects are not statistically significant (Figure 7). Instead, government health expenditure as a share of current health expenditure and population density both had statistically significant positive effects on SBA (see Annex II for details).

**Figure 7. Size effects of health ODA on skilled birth attendance**



Note: Estimates are based on main FE estimation. The rope-ladder plot shows markers for point estimates, and spikes for confidence intervals at 95% levels. \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ .

## Coverage of ART for HIV

Regarding treatment for HIV, our estimations show that ODA has, on average, had a positive effect on the coverage of ART in the studied countries (Table 5).

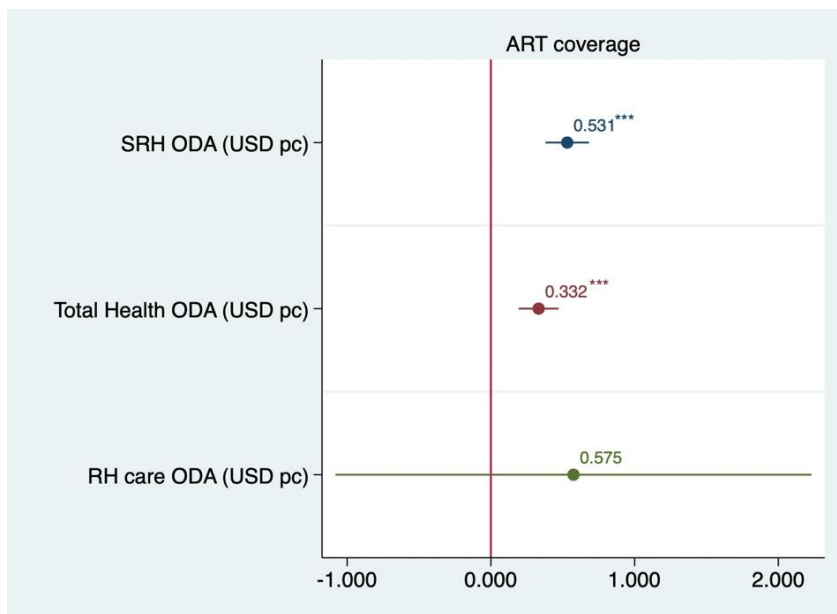
**Table 5. Effects of ODA per capita on ART coverage (Main FE estimation)**

Variables	SRH-ODA	Total health ODA	RH-ODA
Health ODA pc	0.531*** [0.380 – 0.682]	0.332*** [0.193 – 0.471]	0.575 [-1.081 – 2.231]
Controls	YES	YES	YES
Two-way FE	YES	YES	YES

Note: Standard errors are clustered at the country level. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1, and 95 % CI in brackets. Data sources. OECD-CRS, WDI, WGI.

More specifically, Total health ODA and SRH-ODA had a statistically significant positive effect on ART service coverage whereas RH-ODA had a positive but not statistically significant effect (Figure 8). A 1 USD per capita increase of SRH-ODA is, on average, associated with a 0.531 percentage point increase in antiretroviral therapy coverage (e.g. from 20 percent to 20.531 percent). For example, increasing SRH-ODA from 3 to 4 USD per capita would be associated with an average 0.531 percentage point increase in ART coverage. This suggests that to increase ART coverage from the current LIC average of 80 percent to the UNAIDS target of 90 percent would require an increase of SRH-ODA of 18.83 USD/Capita (i.e. nearly five times more than the 2002–2020 average SRH-ODA). In Annex IV, tables A9-A12, results are shown for alternative specifications of the models along with their interpretations.

**Figure 8. Size effects of ODA on ART coverage**

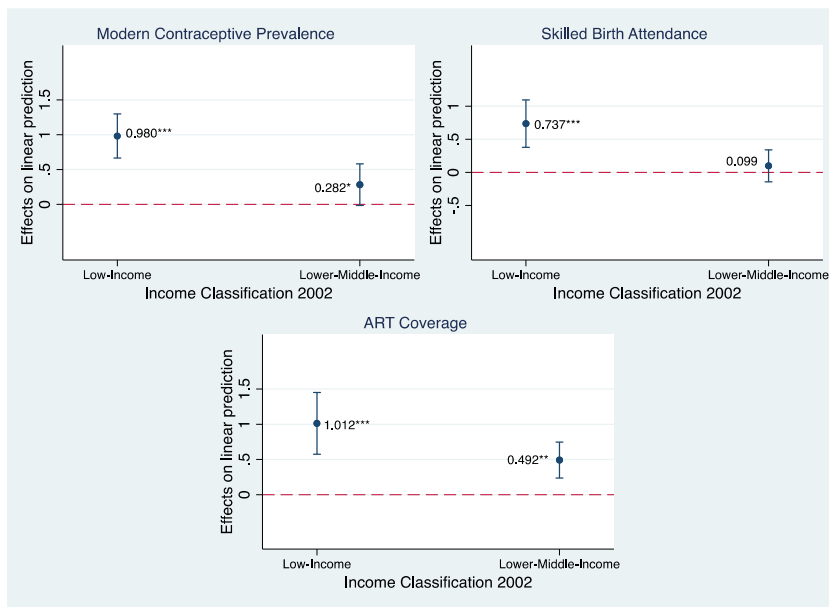


Note: Estimates are based on main FE estimation. The rope-ladder plot shows markers for point estimates, and spikes for confidence intervals at 95% levels. \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ .

In addition to our main findings of the effects of ODA on the identified SRH service outcomes presented above, we are also able to report some additional observations of relevance to the study's overall purpose (see Annex III).

First, we do not find any statistically significant negative effect of ODA on the SRH service outcomes; all estimates are either statistically significant positive or statistically not-significant positive. Second, income has generally been an important factor for the SRH outcomes. In particular, GDP per capita has had a strong effect on skilled birth attendance in the countries over the analysed period. And third, the observed effects of ODA generally appear to be stronger in low-income countries than in lower-middle-income countries (Figure 9).

**Figure 9. Marginal effect of SRH-ODA (2020 USD, pc) on SRH service outcomes, by countries income classification in 2002 (based on 3-Year-Averages Models)**



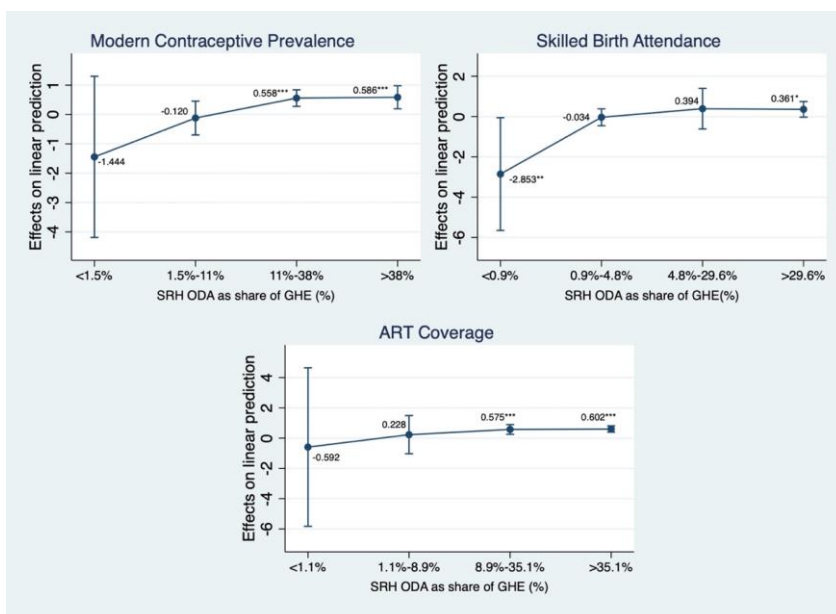
Note: Income Classification in 2002 as defined by the World Bank. The plot show markers for point estimates, and spikes for confidence intervals at 95% levels. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.

## The effects of ODA by volume, time, and type

While the main findings of the analysis suggest that, in general, ODA to SRH services has had a positive effect over this period, there may be reasons to investigate whether the effect has varied by volume, across time, and by the type of donor. The issue of a possibly different effect of ODA depending on the volume of aid is important as it may suggest that the amount of ODA allocated to a country needs to reach a certain level before it begins to affect the outcome in any meaningful way. The question of whether the effect of ODA is stronger during the later years of the study period is important as it captures potential improvements in development partners' and recipient countries' effective use of ODA for the intended purposes.

We find that SRH-ODA may have a “threshold effect” in that SRH-ODA may need to reach a certain volume relative to domestic government health expenditure to have a significant positive contribution to SRH service outcomes (Figure 10). However, we also find that the marginal effect of ODA plateaus above certain levels (roughly when SRH-ODA exceeds 25 percent of government health expenditure). This finding is important as it suggests that development partners should find an appropriate balance between providing sufficient levels of ODA to, on one hand, reach the threshold level and, on the other, not provide excessive levels of ODA that the recipient country is unable to utilize effectively.

**Figure 10. Marginal (threshold) effect of SRH-ODA (2020 USD, pc) on SRH services, by ODA relative to government health expenditure (based on 3-Year-Average Models)**

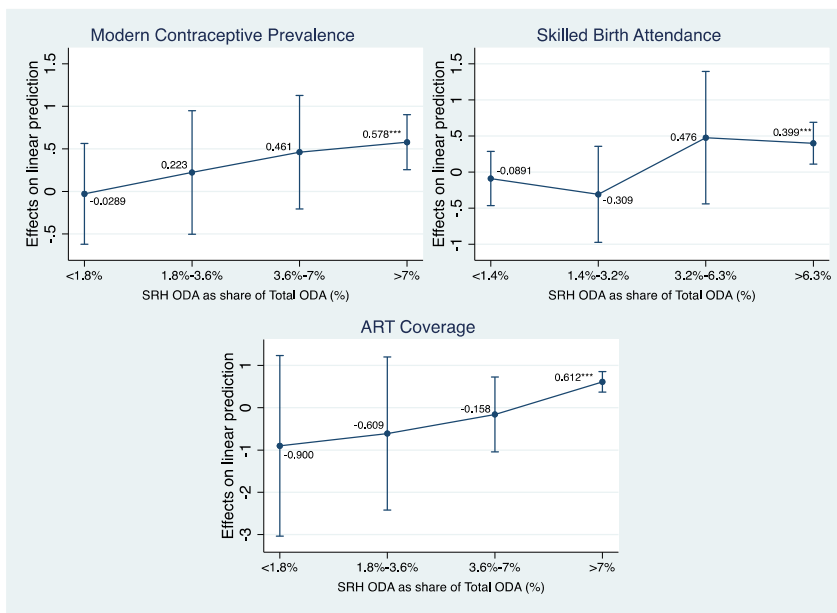


Note: ODA/GHE is calculated by dividing the sectoral ODA (constant 2020 USD per capita) by domestic general government health expenditure (current USD per capita). The levels were defined using quartile values of the ODA/GHE variable. The plots show markers for point estimates, and spikes for confidence intervals at 95% levels. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.



Similarly, we investigated whether there is a difference in the effect of SRH-ODA depending on the volume of SRH-ODA relative to the total ODA received by a country. The findings suggest that the positive contribution of SRH-ODA is most apparent when SRH-ODA represents a larger share of total ODA.

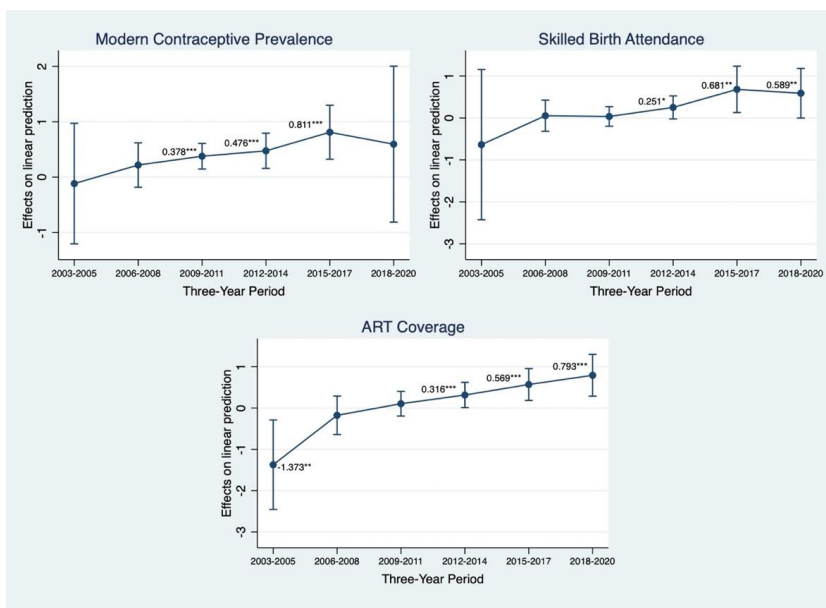
**Figure 11. Marginal effect of SRH-ODA (2020 USD, pc) on SRH services, by SRH-ODA relative to Total ODA (based on 3-Year-Average Models)**



Note: SRH-ODA/Total ODA is calculated by dividing the sectoral ODA (constant 2020 USD per capita) by Total ODA (constant 2020 USD per capita) received by a country. The levels were defined using quartile values of the SRH-ODA/Total ODA variable. The plots show markers for point estimates, and spikes for confidence intervals at 95% levels. \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ .

We also find evidence suggesting that the effect of SRH-ODA has increased over time (see Figure 12). The finding of a positive learning effect is also important as it provides motivation for the continuous allocation of ODA to support the provision of SRH services, especially in low-income countries.

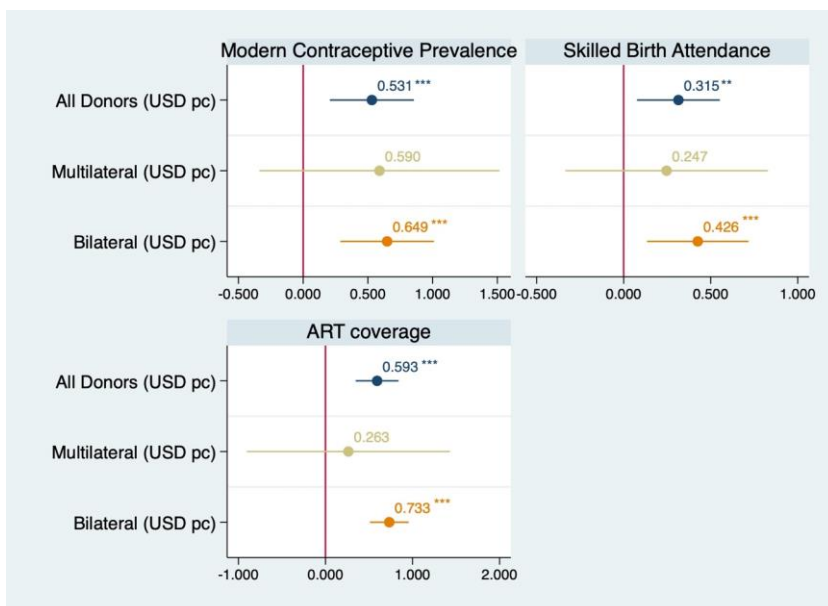
**Figure 12. Marginal effect of SRH-ODA (2020 USD, pc) on SRH service outcomes, by 3-Year period (based on 3-Year Averages Models)**



Note: The plot show markers for point estimates, and spikes for confidence intervals at 95% levels. \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ . Based models with variables averaged over three-year periods and five time periods.

Finally, we find some support for the proposition that the effect of ODA varies by donor type. Bilateral ODA appears to be more effective than multilateral development assistance (Figure 13). See Annex III for more tables on the additional results, including findings for Total health ODA and RH-ODA.

**Figure 13. Effects of SRH-ODA (2020 USD, pc) on SRH service outcomes, by donor type (based on 3-Year Averages Models)**



Note: The rope-ladder plot show markers for point estimates, and spikes for confidence intervals at 95% levels. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1. All models control for ln GDP per capita, GHE/CHE, government effectiveness, control of corruption, ln population density, primary school enrolment, female labour market participation.

# Discussion and conclusions

The findings of this study suggest that, on average, ODA has had a positive effect on skilled birth attendance, access to contraceptives, and coverage of anti-retroviral therapies in low- and lower-middle-income countries during the period 2002–2020. While the effects are small and vary across these outcomes, the findings provide general support the continued allocation of development assistance to improve SRHR service outcomes in low- and lower-middle-income countries. However, further analyses of the data have revealed that the effects of ODA are not uniform across different levels of ODA, time periods, and types of ODA. In this section, we critically discuss these findings and point out remaining gaps in the evidence base. Based on the discussion, we draw conclusions of relevance to research, practice, and policy development.

## Discussion

The main findings of the study are broadly in line with the findings of previous studies in this field. However, they also indicate that the effects of aid may be more complex than would initially appear to be the case. The magnitude of the effect seems to be stronger for SRH-specific ODA than for Total health ODA, which is reasonable given the narrower focus of SRH-ODA. Our findings are thus in line with similar studies that have identified a positive effect of SRH-ODA on SRH-related mortality (Taylor et al., 2013; Wilson, 2011). While most studies in our systematic review focused on the effects of aid on long-term outcomes (such as maternal or infant mortality), a few studies have examined the effect of ODA on service indicators. In line with our findings, Bendavid et al. (2010) observed a positive correlation between ODA and ART coverage, although their study was limited to the effect of ODA on HIV specifically. Shepard et al. (2003) estimated the effect of USAID family planning funding during the period 1989–1998 on the contraceptive prevalence rate

and found a significant positive association. This is in line with our findings, though their analysis was much more limited in terms of the sources of ODA included and covered a different period. Grepin (2012) studied how different types of health ODA correlated with maternal health service provision but found no significant associations for any of the types of health ODA. Our analysis reported similar results where we noted a positive, though insignificant, effect of health ODA on deliveries attended by a skilled birth attendant. The findings also suggest that other factors may have played a more significant role than health ODA in strengthening these services over the past two decades. In particular, economic development and population density seem to be of importance, as does control of corruption for some outcomes. Our findings thereby resonate with Lee et al. (2016) who argued that ODA needs to be accompanied by efforts to improve governance and accountability in order to be effective. Toseef et.al made similar claims arguing for control of corruption for aid to be effective (2019).

In this study, we measured the effects on service indicators using three measures of ODA (Total health ODA; SRH-ODA and RH-ODA). The strongest and most significant effect was observed for SRH-ODA. Even though we did not expect a strong effect of reproductive health ODA on contraceptive prevalence and ART coverage, as funding to these areas should be reported in other ODA sector codes, the relatively weak association between reproductive health ODA and the skilled birth attendance indicator is noteworthy. One possible explanation for the lack of a strong association could be that the share of births attended by skilled personnel was at a relatively high level already in 2002 – around 70 percent on average in the sample of LLMICs – compared to the contraceptive prevalence rate and ART coverage, which were around 36 percent and 1 percent, respectively. This may point to the challenge of reaching universal coverage of SRH services as it may be more difficult to reach the remaining uncovered population groups.

Given the recognition of the strong link between SRHR and general development, the importance of addressing SRHR is widely acknowledged today. It is therefore important to understand the overall contribution of SRH-ODA to the improvement of key SRH indicators. This study contributes to a better understanding of the overall effects of SRH-ODA on specific sexual and reproductive health indicators at the macro level using quantitative data. That said, other types of studies and additional evidence are needed to broaden the evidence base. Rather than more studies of the same kind, we argue for the value of different types of analyses, including qualitative and quantitative (as well as mixed-methods) studies at both macro and micro levels. Quantitative studies using micro-level data could provide evidence of the effects of SRH-ODA at the level of households and communities. Qualitative studies could explore how ODA contributes to policy development for advancing SRH or how issues of SRH-ODA are perceived and experienced by the beneficiaries. Combined, such a “patchwork” of evidence would provide a more comprehensive answer to the question of how SRH-ODA can be most effectively implemented.

Our analysis does not capture what share of SRH interventions is funded by SRH-ODA in each country. We know that in several countries, the majority of SRH services are funded with the support of ODA (The Partnership for Maternal, 2019). When a large share of a country’s health sector or general government expenditure is financed by ODA, it is often referred to as “aid dependent” (see for example Olakunde, et al., 2019; Marty, et al., 2017). Therefore, the share of SRH interventions funded by ODA in a country is one important factor to consider to understand the effect of ODA. For example, the HIV/AIDS response in Malawi is 90 percent funded using external resources,<sup>5</sup> primarily ODA. In such a funding scenario, improvements in ART coverage will likely be largely attributable to SRH-ODA. However, one reason for countries like Malawi being so heavily reliant on ODA to finance the HIV/AIDS

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<sup>5</sup> <https://www.state.gov/wp-content/uploads/2019/12/Malawi-SID-2019.pdf>

response is that development partners have earmarked large funds for this specific purpose. At the overall health sector level, however, reliance on external funding is much lower (although still high in absolute terms), about 50 percent of current health expenditure in Malawi. Consequently, the reliance on ODA appears higher when looking at certain sub-sectors, such as HIV/AIDS. This “earmarking” of resources for specific purposes is one reason for why we conducted our analysis based on several measurements of ODA and why we opted to control for the level of government spending on health. Our results appear robust with respect to both concerns, but earmarking could explain the slightly lower effect size that we observe when analysing Total health ODA compared to SRH-ODA. Furthermore, we would also argue that the earmarking of ODA contributes to a distorted picture of donor dependency, and we would welcome a more nuanced discussion on what ODA dependence entails for health system development and service delivery.

Another reason why we included several measures of ODA in our analyses is that aid targeting SRHR is not always reported as SRH-ODA. Other studies trying to measure SRH-ODA have illustrated the difficulties of relying solely on SRH-ODA codes, as many SRHR interventions are reported using other statistical codes (DSW & European Parliamentary Forum, 2020; Schäferhoff et al., 2019). For example, programs targeting violence against women or supporting LGBTQI rights are commonly reported under sector codes outside the health sector. So, despite our expanded measure of health ODA, we acknowledge that even this measurement does not fully capture all ODA of relevance for SRHR, implying that we might have underestimated the effect of ODA on SRH outcomes.

Our analysis also points to other interesting findings. First, our results indicate the existence of threshold effects of health ODA. In particular, health ODA appears to have an effect once it reaches a certain share of available domestic government health spending (measured as government health expenditure, GHE). While

threshold effects have been explored in other studies of ODA (e.g. by Wayoro & Ndikumana, 2020), an exploration of the threshold effect of health or SRH-ODA as share of GHE was not found in any of the studies reviewed in this report. There may be several reasons behind the observed threshold effect. One reason could simply be that below a certain level, health ODA does not have any material effect on available resources or on policy effectiveness. Similarly, our additional analyses indicate that the effect of ODA appears to be stagnating as it expands beyond a certain share of domestic resources. As shown above, for modern contraceptive prevalence, we find a threshold at around 39 percent of total government health expenditures, where the effect of health ODA is less pronounced compared with when it constitutes between 11 and 38 percent. Results are similar for skilled birth attendance and ART coverage, but at slightly different shares of health expenditure (see Figure 10 for details).

There may also be several different reasons for an upper threshold for the effect of health ODA on these outcomes and further investigation is needed to be able to draw any conclusions. However, one reason could be that if health ODA makes up a very large share of total available financial resources, it may lead to a situation where too many programs, projects, and services are being implemented without a sufficient supply of other resources, such as personnel or medicines. It is broadly accepted that the effective delivery of SRH services (and other types of health care and other types of services) ultimately depends on the availability of competent and motivated staff. It may thus be the case that the effect of health ODA directed toward these services is reduced due to the lack of such staff. An additional and related reason may be that large amounts of ODA lead to coordination problems at the management level of the health system. The inability to effectively coordinate the allocation of resources may lead to diminished effectiveness (Chansa et al., 2008; Sundewall & Sahlin-Andersson, 2006).



A second result of relevance that we find is that the effects of health ODA on these service outcomes appear to have improved over the course of the study period. As shown in Figure 12, the general trend is that the effects of health ODA are larger toward the end of the period compared to the beginning of the period. The reason for this may, among others, be a learning effect, whereby countries and development partners become better at utilizing health ODA effectively. For example, overall management, planning, and coordination of resources may have become more well-functioning over time as those involved in managing health ODA and domestic resources have become more skilled at it. It may also be due to the effectiveness of the various agreements, such as the SDGs and the Paris Declaration on Aid Effectiveness, that have been reached over the past decades or so about the focus areas for ODA, and criteria and conditions for ODA allocation and disbursement. Pallas and Ruger (Pallas & Ruger, 2017) argued that it takes time for commitments to translate into disbursements and it takes time for disbursements to generate outcomes, which could also contribute to, although not fully explain, the stronger effect towards the end of the time period. The reasons for this effect should be studied further.

Third, and finally, we also find that the source of ODA appears to matter. Specifically, we find that ODA, where the source is classified as 'bilateral', is associated with a larger effect compared with ODA classified as 'multilateral'. It should be reiterated that this analysis is limited to ODA by source of funds (i.e. where funding is coming from), and not by, for example, channel (i.e. who implements the development program). Biscaye et al. (2017) conducted a review of 45 articles that all tested the association between bilateral and multilateral aid flows and did not find any consistent evidence of one being more effective than the other. That said, while different types of ODA play different roles, our finding that the effects of ODA may vary by source is noteworthy on a principal level as both sources of ODA most likely will continue to be important over the coming years. While these results are relevant to the understanding of the role of development assistance, the validity of the results will need to be confirmed by further studies using supplementary data and methods.

## **Conclusions and implications for Swedish development assistance**

Our study suggests that overall SRH-ODA has a positive effect on ART coverage, the contraceptive prevalence rate and the share of births attended by skilled personnel. This is encouraging and at an overall level, pointing to results of SRHR investments, a long-term priority for the Swedish Government. However, the effects of ODA that our analysis points to are relatively small, and even if SRH-ODA was substantially increased it would not be sufficient to reach targets set for the outcomes that we have studied. For example, our results suggest that to reach 90 percent coverage of ART, SRH-ODA would have to increase by almost six times compared with current levels, which is not realistic to expect. This suggests that reaching the target of 90 percent coverage of ART, will likely not be achieved only through increased SRH-ODA. Development partners would therefore be advised to also continue improving the effectiveness of SRH-ODA. Furthermore, our analysis indicates that there may exist a threshold effect of ODA, which leads us to argue that investments in SRHR must be large relative to the share of domestic funding for health. This would imply that it is better to focus SRH-ODA on fewer and larger programs in a limited number of countries rather than spread available aid funds more thinly across many countries.

Our finding that ODA appears to have had the largest effect in low-income countries also provides support to Sweden's focus on the poorest and most vulnerable countries and population groups. As we have argued in this report, effective development assistance requires different types of evidence bases. This study has contributed to an improved understanding of the role of ODA in this area, but it is only one piece of the evidence required. Successful implementation of SRHR projects will require multiple sources of evidence from research applying both qualitative, quantitative and mixed-methods approaches. As Sweden works to improve development effectiveness, we encourage investments in rigorous

empirical evidence at both macro and micro levels to continue improving the effectiveness of aid and the contribution of Swedish ODA to the achievement of Agenda 2030 and the SDGs.

# References

- Addison, T., Mavrotas, G., & McGillivray, M. (2005). Development assistance and development finance: evidence and global policy agendas. *Journal of International Development*, 17(6), 819-836.
- Akinlo, A. E., & Sulola, A. O. (2019). Health care expenditure and infant mortality in sub-Saharan Africa. *Journal of Policy Modeling*, 41(1), 168-178.
- Arndt, C., Jones, S., & Tarp, F. (2015). Assessing Foreign Aid's Long-Run Contribution to Growth and Development. *World Development*, 69, 6-18.
- Arsenault, C., Kim, M. K., Aryal, A., Faye, A., Joseph, J. P., Kassa, M., . . . Kruk, M. E. (2020). Hospital-provision of essential primary care in 56 countries: determinants and quality. *Bulletin of the World Health Organization*, 98(11), 735-746D.
- Baltagi, B. H. (2021). *Econometric analysis of panel data*. Springer Cham.
- Banchani, E., & Swiss, L. (2019). The Impact of Foreign Aid on Maternal Mortality. *Politics and Governance*, 7(2), 53-67.
- Bendavid, E., Leroux, E., Bhattacharya, J., Smith, N., & Miller, G. (2010). The relation of price of antiretroviral drugs and foreign assistance with coverage of HIV treatment in Africa: retrospective study. *Bmj*, 341, c6218.
- Biscaye, P. E., Reynolds, T. W., & Anderson, C. L. (2017). Relative Effectiveness of Bilateral and Multilateral Aid on Development Outcomes. *Review of Development Economics*, 21(4), 1425-1447.
- Brooks, N., Bendavid, E., & Miller, G. (2019). USA aid policy and induced abortion in sub-Saharan Africa: an analysis of the Mexico City Policy. *Lancet Glob Health*, 7(8), e1046-e1053.

- Chansa, C., Sundewall, J., McIntyre, D., Tomson, G., & Forsberg, B. C. (2008). Exploring SWAp's contribution to the efficient allocation and use of resources in the health sector in Zambia. *Health Policy Plan*, 23(4), 244-251.
- Coburn, C., Reed, H. E., Restivo, M., & Shandra, J. M. (2017). The World Bank, Organized Hypocrisy, and Women's Health: A Cross-National Analysis of Maternal Mortality in Sub-Saharan Africa. *Sociological Forum*, 32(1), 50-71. Retrieved from <http://www.jstor.org/stable/26626060>
- Dickson, K. S., Adde, K. S., & Ameyaw, E. K. (2021). Women empowerment and skilled birth attendance in sub-Saharan Africa: A multi-country analysis. *PLoS One*, 16(7), e0254281.
- DSW, & European Parliamentary Forum. (2020). *Donors delivering for SRHR: tracking OECD donor funding for sexual and reproductive health and rights*. Retrieved from [https://www.epfweb.org/sites/default/files/2021-04/DD\\_Report2020\\_webversion\\_new.pdf](https://www.epfweb.org/sites/default/files/2021-04/DD_Report2020_webversion_new.pdf)
- Friberg, I. K., Baschieri, A., & Abbotts, J. (2017). A method for estimating maternal and newborn lives saved from health-related investments funded by the UK government Department for International Development using the Lives Saved Tool. *BMC Public Health*, 17(4), 779.
- Grépin, K. A. (2012). HIV donor funding has both boosted and curbed the delivery of different non-HIV health services in sub-Saharan Africa. *Health Aff (Millwood)*, 31(7), 1406-1414.
- Hanlon, M., Burstein, R., Masters, S. H., & Zhang, R. (2012). Exploring the relationship between population density and maternal health coverage. *BMC Health Services Research*, 12(1), 416.
- Herzer, D., & Nunnenkamp, P. (2012). The effect of foreign aid on income inequality: Evidence from panel cointegration. *Structural Change and Economic Dynamics*, 23(3), 245-255.

- Hsiao, A. J., & Emdin, C. A. (2015). The association between development assistance for health and malaria, HIV and tuberculosis mortality: a cross-national analysis. *J Epidemiol Glob Health*, 5(1), 41-48.
- Islam, M. N. (2003). Political Regimes and the Effects of Foreign Aid on Economic Growth. *The Journal of Developing Areas*, 37(1), 35-53.
- Kaiser, A. H., Ekman, B., Dimarco, M., & Sundewall, J. (2021). The cost-effectiveness of sexual and reproductive health and rights interventions in low- and middle-income countries: a scoping review. *Sexual and Reproductive Health Matters*, 29(1), 90-103.
- Khatiwada, J., Muzembo, B. A., Wada, K., & Ikeda, S. (2020). Dimensions of women's empowerment on access to skilled delivery services in Nepal. *BMC Pregnancy and Childbirth*, 20(1).
- Khorrani, N., Stone, J., Small, M. J., Stringer, E. M., & Ahmadzia, H. K. (2019). An overview of advances in global maternal health: From broad to specific improvements. *International Journal of Gynecology & Obstetrics*, 146(1), 126-131.
- Kibira, D., Asimwe, C., Muwonge, M., van den Ham, H. A., Reed, T., Leufkens, H. G., & Mantel-Teeuwisse, A. K. (2021). Donor Commitments and Disbursements for Sexual and Reproductive Health Aid in Kenya, Tanzania, Uganda and Zambia. *Front Public Health*, 9, 645499.
- Kotsadam, A., Østby, G., Rustad, S. A., Tollefsen, A. F., & Urdal, H. (2018). Development aid and infant mortality. Micro-level evidence from Nigeria. *World Development*, 105, 59-69.
- Lee, H.-Y., Yang, B.-M., & Kang, M. (2016). Control of corruption, democratic accountability, and effectiveness of HIV/AIDS official development assistance. *Global Health Action*, 9(1), 30306.
- Makuta, I., & O'Hare, B. (2015). Quality of governance, public spending on health and health status in Sub Saharan Africa: a panel data regression analysis. *BMC Public Health*, 15(1).
- Marty, R., Dolan, C. B., Leu, M., & Runfola, D. (2017). Taking the health aid debate to the subnational level: the impact and allocation of foreign health aid in Malawi. *BMJ Global Health*, 2(1), e000129.

- Moral-Benito, E., Allison, P., & Williams, R. (2019). Dynamic panel data modelling using maximum likelihood: an alternative to Arellano-Bond. *Applied Economics*, 51(20), 2221-2232.
- Niño-Zarazúa, M., Gisselquist, R., Horigoshi, A., Samarin, M., & Sen, K. (2020). *Effects of Swedish and International Democracy Aid*. Retrieved from <https://eba.se/en/reports/effects-of-swedish-and-international-democracy-aid/12554/>
- Novignon, J., Olakojo, S. A., & Nonvignon, J. (2012). The effects of public and private health care expenditure on health status in sub-Saharan Africa: new evidence from panel data analysis. *Health Economics Review*, 2(1), 22.
- Nunnenkamp, P., & Öhler, H. (2011). Throwing Foreign Aid at HIV/AIDS in Developing Countries: Missing the Target? *World Development*, 39(10), 1704-1723.
- OECD/EC-JRC. (2021). *Access and Cost of Education and Health Services: Preparing Regions for Demographic [Internet]*. Paris: OECD Publishing: 2021 [cited 2022 April 5]. Retrieved from: <https://www.oecd.org/publications/access-and-cost-of-education-and-health-services-4ab69cf3-en.htm>
- Olakunde, B. O., Adeyinka, D. A., Ozigbu, C. E., Ogundipe, T., Menson, W. N. A., Olawepo, J. O., . . . Ezeanolue, E. E. (2019). Revisiting aid dependency for HIV programs in Sub-Saharan Africa. *Public Health*, 170, 57-60.
- Pallas, S. W., & Ruger, J. P. (2017). Does donor proliferation in development aid for health affect health service delivery and population health? Cross-country regression analysis from 1995 to 2010. *Health Policy Plan*, 32(4), 493-503.
- Pickbourn, L., & Ndikumana, L. (2016). The Impact of the Sectoral Allocation of Foreign aid on Gender Inequality. *Journal of International Development*, 28(3), 396-411.
- Piemonte, C. (2020). *External financing to Least Developed Countries (LDCs): where we stand*. Retrieved from <https://www.oecd.org/dac/financing-sustainable-development/Fact-sheet-external-financing-to-LDCs-2020.pdf>

- Ravindran, T. K. S., & Govender, V. (2020). Sexual and reproductive health services in universal health coverage: a review of recent evidence from low- and middle-income countries. *Sexual and Reproductive Health Matters*, 28(2), 1779632.
- Requejo, J., Diaz, T., Boerma, T., & Victora, C. (2020). Delivering for women, children, and adolescents during and after covid-19 [Internet]. BMJ Opinion; 2020 [cited 2022 Feb 27]. Retrieved from [https://blogs.bmj.com/bmj/2020/09/23/delivering-for-women-children-and-adolescents-during-and-after-covid-19/#\\_ftn5](https://blogs.bmj.com/bmj/2020/09/23/delivering-for-women-children-and-adolescents-during-and-after-covid-19/#_ftn5)
- Schäferhoff, M., Van Hoog, S., Martinez, S., Fewer, S., & Yamey, G. *Funding for sexual and reproductive health and rights in low-and middle-income countries: threats, outlook and opportunities* [Internet]. Geneva: The Partnership for Maternal, Newborn & Child Health; 2019 [cited 2022 Feb 2]. Retrieved from: [https://pnmch.who.int/docs/librariesprovider9/meeting-reports/srhr\\_forecast](https://pnmch.who.int/docs/librariesprovider9/meeting-reports/srhr_forecast)
- Shepard, D. S., Bail, R. N., & Merritt, C. G. (2003). Cost-effectiveness of USAID's regional program for family planning in West Africa. *Stud Fam Plann*, 34(2), 117-126.
- Starrs, A. M., Ezeh, A. C., Barker, G., Basu, A., Bertrand, J. T., Blum, R., . . . Ashford, L. S. (2018). Accelerate progress – sexual and reproductive health and rights for all: report of the Guttmacher– Lancet Commission. *The Lancet*, 391(10140), 2642-2692.
- Sumner, A., & Glennie, J. (2015). Growth, Poverty and Development Assistance: When Does Foreign Aid Work? *Global Policy*, 6(3), 201-211.
- Sundewall, J., & Sahlin-Andersson, K. (2006). Translations of health sector SWAps--a comparative study of health sector development cooperation in Uganda, Zambia and Bangladesh. *Health Policy*, 76(3), 277-287.
- Taylor, E. M., Hayman, R., Crawford, F., Jeffery, P., & Smith, J. (2013). The impact of official development aid on maternal and reproductive health outcomes: a systematic review. *PLoS One*, 8(2), e56271.
- Toseef, M. U., Jensen, G. A., & Tarraf, W. (2019). How Effective Is Foreign Aid at Improving Health Outcomes in Recipient Countries? *Atlantic Economic Journal*, 47(4), 429-444.



- United Nations Population Fund. (2014). *Programme of Action of the International Conference on Population and Development. 20<sup>th</sup> Anniversary edition*. Retrieved from <https://www.unfpa.org/publications/international-conference-population-and-development-programme-action>
- United Nations Population Fund. (2019). *Sexual and Reproductive Health and Rights: An essential element of Universal Health Coverage. Background document for the Nairobi summit on ICPD25 - Accelerating the promise*. Retrieved from [https://www.unfpa.org/sites/default/files/pub-pdf/SRHR\\_an\\_essential\\_element\\_of\\_UHC\\_2020\\_online.pdf](https://www.unfpa.org/sites/default/files/pub-pdf/SRHR_an_essential_element_of_UHC_2020_online.pdf)
- Utrikesdepartementet och Sida. (2022). *Sveriges Hälsoinstitut 2021*.
- Wayoro, D., & Ndikumana, L. (2020). Impact of development aid on infant mortality: Micro-level evidence from Côte d'Ivoire. *African Development Review*, 32(3), 432-445.
- Wilson, S. E. (2011). Chasing Success: Health Sector Aid and Mortality. *World Development*, 39(11), 2032-2043.
- Win, T., & Cho, Y. C. (2018). Exploring effectiveness of official development assistance: Comparison analysis of developing countries. *Journal of marketing thought*, 5(3), 22-32.
- Wooldridge, J. M. (2010). *Econometric Analysis of Cross Section and Panel Data*. Cambridge, MA: MIT Press.
- World Bank. (2021). *Walking the talk: Reimagining Primary Health Care After COVID-19*. Retrieved from <https://openknowledge.worldbank.org/entities/publication/5532a218-0330-5629-ae33-4f1a98d30fd8>
- World Health Organization. (2006). *Reproductive health indicators: guidelines for their generation, interpretation and analysis for global monitoring*. Retrieved from Geneva: <https://apps.who.int/iris/handle/10665/43185>
- Yogo, U. T., & Mallaye, D. (2015). Health Aid and Health Improvement in Sub-Saharan Africa: Accounting for the Heterogeneity Between Stable States and Post-Conflict States. *Journal of International Development*, 27(7), 1178-1196.
- Zhuang, H., Wang, M., & Daniels, J. (2020). Foreign Aid and Adolescent Fertility Rate: Cross-Country Evidence. *Journal of Globalization and Development*, 0(0).

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The five appendices that accompany the study are published online and may be found at <https://eba.se/en/reports/>

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Sexuell och reproduktiv hälsa och rättigheter (SRHR) är ett viktigt område för såväl hållbar utveckling som svenskt utvecklings-samarbete. Denna studie undersöker i vilken grad internationellt bistånd bidragit till att öka tillgången till tre vårdtjänster inom SRHR-området: kvalificerad förlossningsvård, moderna preventivmedel och antiretroviral behandling mot hiv/aids. Författarnas slutsats är att biståndet spelat en liten men positiv roll, särskilt i låginkomstländer.

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Sexual and reproductive health and rights (SRHR) is an important area for sustainable development and within Swedish development cooperation. This study examines the extent to which aid has contributed to increasing access to three health services within the SRHR area: skilled birth attendance, modern contraceptives, and antiretroviral therapy against HIV/AIDS. The authors find that aid has played a small but positive role, especially in low-income countries.