G-FINDER 2023

POLICY CURES RESEARCH.

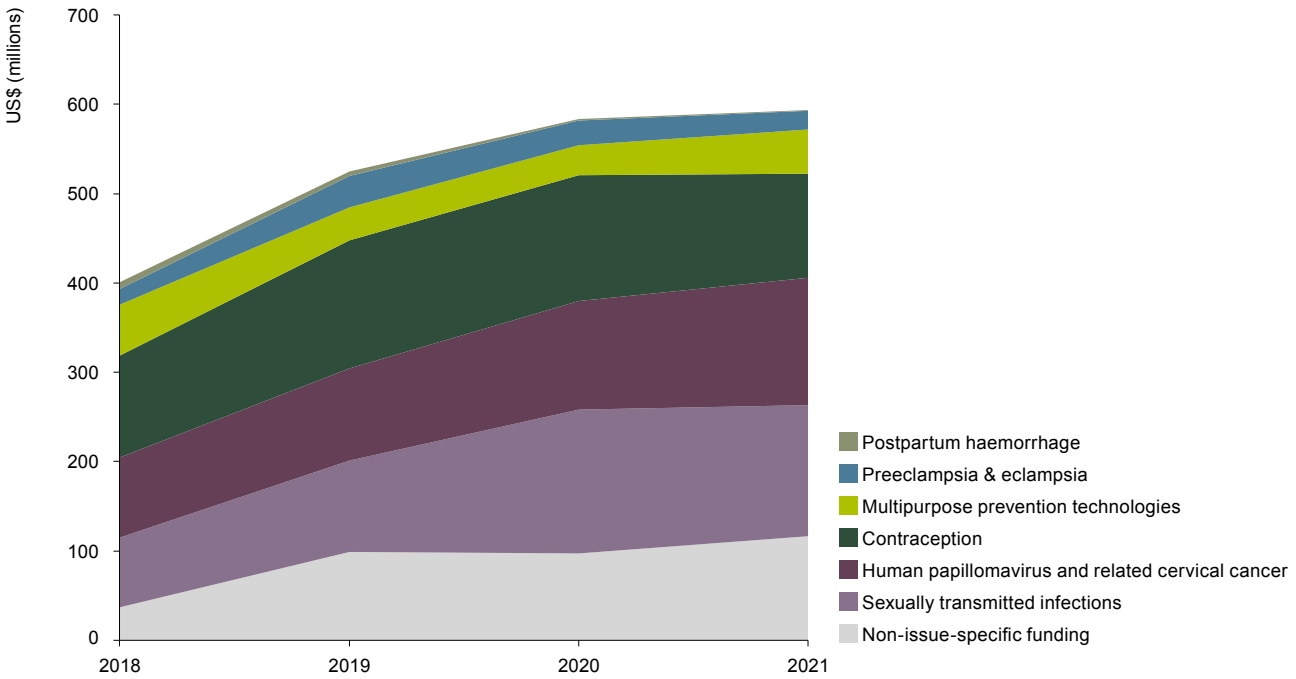
SEXUAL AND REPRODUCTIVE HEALTH R&D: BEYOND SPILLOVERS

EXECUTIVE SUMMARY

In October 2023, Policy Cures Research released the second edition of its current ongoing report series outlining funding for research & development applicable to sexual & reproductive health issues in low- and middle-income countries, covering the period from 2018 to 2021. The report draws on data from Policy Cures Research's annual G-FINDER survey of investment in global health R&D.

OVERVIEW OF SEXUAL & REPRODUCTIVE HEALTH FUNDING 2018-2021

Funding for sexual & reproductive health R&D by issue, 2018-2021



Overall funding for sexual & reproductive health (SRH) R&D finished 2021 nearly 50% higher than it did in 2018, when we first began gathering this data. While this is obviously good news, some of this growth raises questions – and concerns – about where it was directed and the motives behind it.

The first thing to notice from the graph above is that the two maternal health areas we cover – preeclampsia & eclampsia and postpartum haemorrhage (PPH) – have not shared in the overall boost in funding. This maternal health funding has actually fallen by nearly 15% in the last three years, leaving it $3.7m below its 2018 level, with less than $1m in funding for PPH in 2021.

These figures probably understate the true level of interest in maternal health R&D. The separate data we gather on the maternal health pipeline paints a somewhat busier picture of the R&D landscape. Although we cast a wide net for our funding survey, the difference is probably because we are missing data from some organisations active in the space, particularly small industry players. Either way, what our funding data suggests about the direction of travel over the last four years is still very worrying.

The lack of growth in maternal health leaves us with two big questions: where *did* all the extra money go, and why?

The 'where' is relatively easy to answer. Along with maternal health, our survey covers a range of non-HIV sexually transmitted infections (STIs),[1] as well as a standalone category for human papillomavirus (HPV) and the cervical cancer it causes; contraception; and multipurpose prevention technologies (MPTs) which provide protection from pregnancy, HIV and/or other STIs in various combinations in a single product. Almost all of these non-maternal sexual & reproductive health areas saw at least some growth between 2018 and 2021 – though funding for MPTs fell by 12% – most of it was concentrated in R&D for HPV (up $53m, 59%) and STIs, especially gonorrhoea (up $27m, 88%) and herpes simplex virus 2 (HSV-2), which rose 155% (up $26m).

Our survey also tracks 'non-issue-specific' funding, which doesn't fit neatly into any of the other categories. Funding that actually straddles more than one SRH issue is mostly captured in our separate categories for MPT R&D (e.g., a vaginal ring that includes contraceptive and anti-STI agents), and multi-STI R&D (e.g., a single diagnostic that detects more than one STI simultaneously). Other funding where a single grant supports R&D for several issues is considered 'non-issue specific' (NIS) funding, and is captured under the heading of 'Other R&D'. Most NIS funding, though, is either core funding to organisations focused on SRH R&D, or (increasingly) funding for platform technologies: tools which can theoretically be applied to a range of different diseases, including neglected and emerging infectious diseases, and some sexual & reproductive health issues. Oxford's chimpanzee adenovirus vaccine platform ('ChAdOx1') that was repurposed to deliver the AstraZeneca COVID-19 vaccine is an obvious example in context.

It was this last area, platform technologies, that was the single largest beneficiary of the overall growth in SRH funding. It rose by $69m (283%), accounting for 86% of the increase in NIS funding, and a little over a third of the overall growth in SRH R&D since 2018.

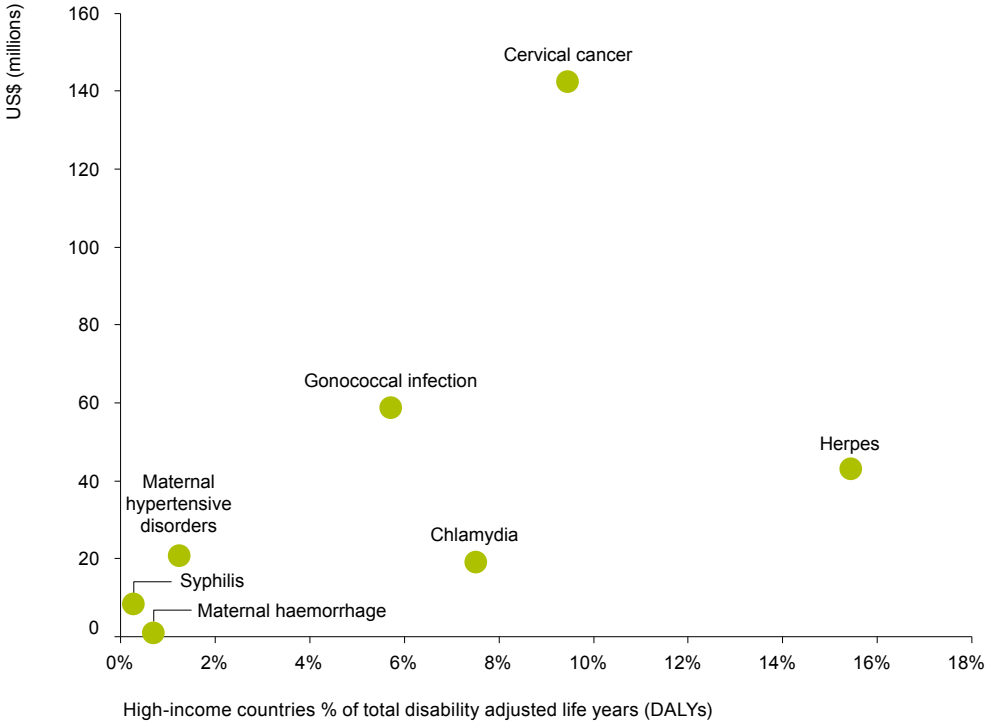
The key wrinkle here is that this wasn't growth in 'sexual & reproductive health platforms' but growth in platforms *potentially relevant* to sexual & reproductive health. These are technologies which could be adapted to target one or more of our SRH issues, but which are almost always currently intended to target something else entirely. The growth of these technologies – which preceded COVID but which was supercharged by its arrival – presents an opportunity for improving reproductive and (especially) sexual health, but doesn't tell us anything about the level of motivation for actually making the necessary adaptations. It might be quite some time in fact before these platforms are leveraged to address SRH issues.

Which brings us back to the question of 'why' growth in overall funding has been distributed the way it has. Part of this is due to the type of R&D we include. When we began tracking SRH R&D funding, we chose a broader focus on R&D for products which are *appropriate* for low- and middle-income countries (LMICs) over R&D for products exclusively *targeted* for use in LMICs. This was a deliberate decision in recognition of the dual market that exists for many sexual & reproductive health issues: we didn't want to miss funding for products that were equally applicable to LMICs just because their initial intended market was high-income. Since some funders of R&D, especially industry, typically care a lot about their expected market – particularly the potential returns offered in high-income country settings – their motivations can have a big impact on what areas of SRH R&D get the most funding.

This may help explain why maternal health issues, which cause more than ten times the global health burden than that of HSV-2, received less than half as much funding in 2021: a substantial share of HSV-2's burden (15%) falls in high-income countries, but more than 99% of the mortality and morbidity associated with preeclampsia, eclampsia and postpartum haemorrhage occurs in LMICs. It turns out that an increasing share of burden occurring in high-income countries for some SRH issues, can be a surprisingly accurate predictor of how much money was spent trying to mitigate it.

1 R&D funding for HIV, and other sexually transmissible infections like hepatitis B & C and Zika, are included in our other R&D funding reports and captured in our data portal https://gfinderdata.policycuresresearch.org/

Total R&D funding and the burden of sexual and reproductive health issues in high-income countries 2021



Some of the LMIC-appropriate R&D funding we capture, then, including a large share of the recent growth, seems to be the spillovers from investments that are probably intended to help somewhere else. Relying on this, as we've seen, distorts funders' choices about what areas of investment to prioritise. Attention to HSV-2 and rising global antimicrobial resistant gonorrhoea flourishes, while maternal health languishes. There is robust funding for vaccines and biologics to deal with drug resistant or persistent STIs, but very little for the kinds of low-cost diagnostics necessary to detect them in LMIC settings. And while spillovers are good, they are not, on their own, enough. Some issues really *do* require LMIC-targeted interventions, particularly maternal health issues like postpartum haemorrhage where low-tech and easy to use solutions are urgently needed to turn the tide on unacceptably high rates of mortality that occur in low-resource settings.

Ultimately though, without funding that's actually motivated by LMIC needs, there's no guarantee that LMIC-applicable technologies will translate to access via the localised adaptation, trials and registration required to ensure they are eventually LMIC-*applied*. We need to make sure that the SRH R&D funding that flows over from other markets is accompanied by a sufficient share of genuinely LMIC-targeted support to get products through the last mile, from potentially to *actually* meeting LMIC needs.

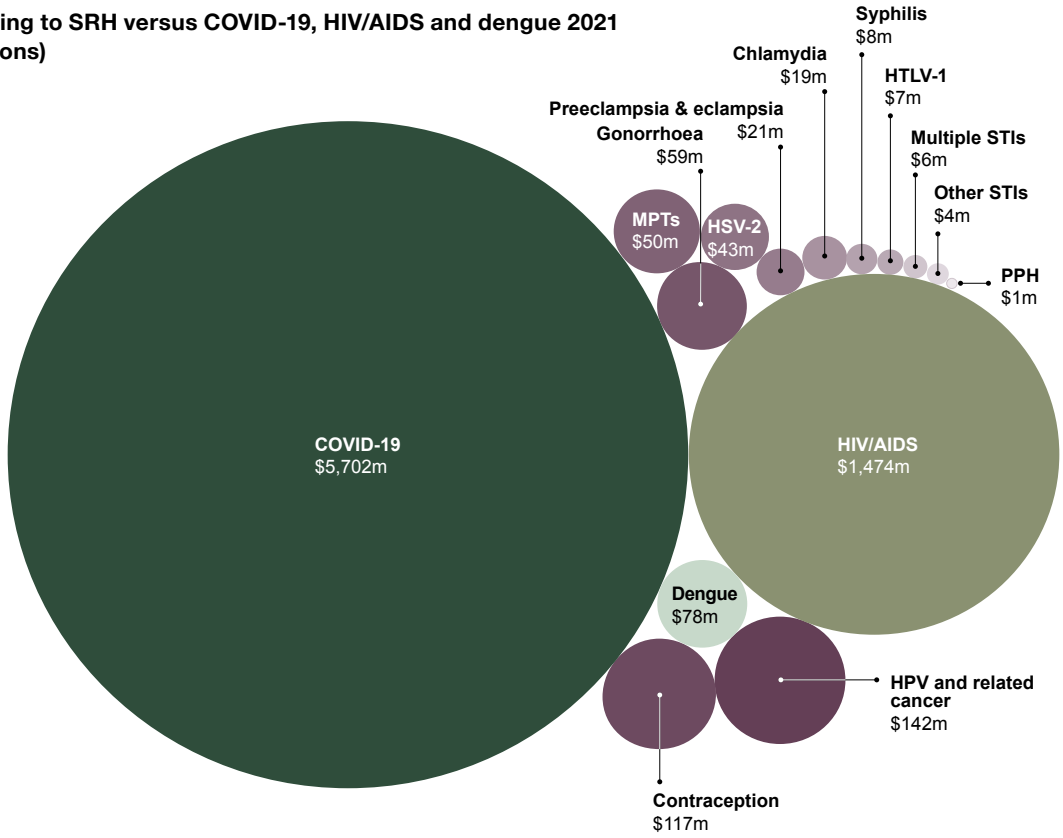
There were also some genuine good news stories in the 2021 funding figures. Funding for contraception enjoyed a brief peak in 2019 and 2020, before returning more-or-less to 2018 levels in 2021. But the kinds of products being funded have evolved to better meet the need for user-controlled products and for a wider variety of options, especially low- or non-hormonal contraceptives; those that cater to male users; or those that limit disruption to menstrual bleeding patterns. The share of R&D funding going towards user-controlled and non-hormonal contraceptives has risen, along with a reduced focus on female-only products. This offers promise of an encouraging move towards more human-centred, user-centric product design and innovation, and mirrors the direction already set for MPTs, where almost two-thirds of historical funding has gone to products which are both non-hormonal and user-controlled.

A gradual expansion of the funder base for SRH R&D, with rising contributions from Unitaid, the European Commission, the German BMBF and the Gates Foundation, is also a good sign. We should celebrate continued investment from industry too, in an area it had traditionally tended to see as too political and litigious to warrant any serious funding commitments.

Ultimately, the current global focus on women's health has also shone a light on the critical lack of interest and investment in innovations to address health issues that affect women exclusively, disproportionately, or differently, as well as the near absence of attention to the intersection of gender and sex in global health. With this in mind, we are hopeful that this momentum will translate to increased investment to drive innovation in this space. And given most SRH issues *do* affect women and girls exclusively, disproportionately or differently – and particularly women and girls in LMICs – it's not unreasonable to be optimistic that funding for LMIC-applicable SRH products will also rise, and soon.

But talk is cheap, and late-stage clinical development is expensive. The $594m in 2021 funding across all SRH R&D remains just a small fraction of the amounts devoted to, for example, HIV ($1.5bn) and COVID-19 ($5.6bn). If the scores of products waiting in early-stage development are to advance through the pipeline, increased attention needs to deliver a genuine increase in funding. And to make an impact, a genuine commitment to the specific, individual needs of people in low- and middle-income countries will be essential.

R&D funding to SRH versus COVID-19, HIV/AIDS and dengue 2021 (US$ millions)



55 Brisbane St, Surry Hills, NSW 2010, Australia +61 (2) 8218 2109 g-finder@policycuresresearch.org