



## Trends and Gaps in Funding and Scaling Maternal and Newborn Health Innovations

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## Introduction

Economists have long suggested that innovation offers the potential for public good (Kremer et al 2019), and many actors in global development no longer view it as “nice to have.” Indeed key [actors](#) from across the development ecosystem have sought to fund and support innovation as a way to drive greater effectiveness, efficiency, and scalability, and convene and collaborate regularly through initiatives like the [International Development Innovation Alliance](#) (IDIA) and the [UN Innovation Network](#) . We define innovation here using IDIA’s and USAID’s Development Innovation Ventures’ complementary definitions: “a new solution with the transformative ability to accelerate impact” (IDIA 2020). These “solutions can come in the form of a product, technology, service, or application of a creative business and delivery model” (USAID 2020).

Typically data on funding to global health and development innovations has been fragmented and difficult to find. Without data, we as a sector, lack transparency and miss lessons, trends, and insights at project, organization, and ecosystem levels. Recently, funders have started sharing data on which innovations they have funded and the amount of their investments through promising initiatives, like the International Aid Transparency Initiative ([IATI](#)). However, these initiatives lack insight into the direct investments in social enterprises, NGOs, and innovators at the project level. Responding to the need for more transparency in global development innovation, are platforms like [Global Grand Challenges Awards Repository](#), [ImpactSpace](#), and [Global Innovation Exchange](#) (GIE).

For our analysis we partnered with GIE, which offered the largest database on global innovation (16,000+) with 50+ partners contributing data about innovations in their portfolios, particularly investment data.

Our analysis focused on essential characteristics of maternal and newborn health (MNH) funded innovations, and if and how these innovations have successfully scaled. The GIE database includes funding from the past 12–15 years, and funders continue to contribute their data. Our analysis was conducted July–September 2020.

As an organization that focuses on global health innovation, Equalize Health sought this information to better learn from the last 10+ years of MNH investing and build lessons into our model for greater speed of solution development and delivery, efficiency, and effectiveness at scale. We sought to answer the following questions:

- How much funding has been invested in maternal and newborn health innovation by key global health funders? What is the result of that funding?
- What are the characteristics of the innovations? Are the innovations more likely to utilize a specific technical approach (e.g. medical devices, pharmaceuticals, diagnostics)
- How many are having an impact at scale?

## Methodology

While – to our knowledge – global health innovation funding and project data are not comprehensively tracked, the closest repository is the [Global Innovation Exchange \(GIE\) database](#). GIE provides standardized classifications on its innovation profiles (e.g. focus areas and geographies) that innovators fill out and enables users to filter, search, and sort innovation profiles. Many leading global development funders contribute “verified<sup>4</sup>” funding data to GIE, including [USAID](#), [Grand Challenges Canada](#), and the [Australian Department of Foreign Affairs and Trade](#). GIE partners with these funders and receives data about their portfolio, including how much investment they received. A full list of GIE’s partners, or “Data Champions,” at the time of this analysis can be found in Appendix A.

While we focused our analysis on maternal and newborn health (MNH) innovations, GIE’s database offers data on other areas of global health, as well as sectors such as energy, agriculture, and WASH (water, sanitation, and hygiene), and on topics such as blockchain, monitoring and evaluation, and artificial intelligence. As part of our aggregate analysis, we also included relevant data from the Draper Richards Kaplan Foundation’s global health [portfolio](#) which was publicly available and not included in the GIE dataset. Of note, the [NEST 360](#) project led by William Marsh Rice University is not included in the GIE database or this analysis, and is believed to represent ~US\$68M–75M in funding for newborn health innovation, testing, scaling, and related activities (Rice 2020).

The global development sector does not have a common definition of scale. Equalize Health has seen many definitions of scale focused on the stage of the product or the loose definition of 1M people,<sup>5</sup> rather than the level of impact achieved. Our philosophy is that definitions of scale should be tied to growing impact paired with a sustainable financial model. In this analysis we set a high bar, as we do in our own work, redefining each innovation’s stage with impact achieved and level of sustainability. See Appendix B for our definitions of scale in comparison to GIE’s definition.

After filtering the aggregate dataset, we conducted desk research on each of the MNH innovations to determine the stage of impact they had achieved. We paid particular attention to updated impact indicators such as expansion into new geographies, market launch, or having reached a new underserved segment. If we found a GIE profile had not been updated in three months, we contacted the innovator to learn the project’s current status.<sup>6</sup> We categorized the stage of an innovation’s scale using information directly from innovators as well as online

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<sup>4</sup>“Verified” means that this information has been reviewed and confirmed for accuracy by Global Innovation Exchange in partnership with the funding organization or another equally reliable source. That is, there is a recognized external source that confirmed that funding or recognition activity happened as noted by the innovator in their GIE profile.

<sup>5</sup> Kremer et al (2019), while using 1M as the indicator to analyze DIV innovations that had “scaled,” noted that the number was “an arbitrary cut-off motivated by the costliness of detailed data collection.”

<sup>6</sup> We reached out to ~ 80% of innovators for whom we could find up-to-date contact information, of whom only 20% responded to our inquiry.

publications, such as annual reports that indicated an innovation's revenue stream(s) or other sustainability pathways.

## What we found

Global health is one of the most prominent development sectors with innovations, making up 40% of the GIE innovation database in 2019 ([Global Innovation Exchange 2019](#)).

Our analysis in July–September 2020 looked at 16,000+ innovations and showed that:

- There were 4,265 global health innovations, and 38% of these innovations received funding.
- The 1,624 funded global health innovations received US\$611,359,401, and most of that funding was verified.<sup>4</sup>
- Only 28% of the total number of global health innovations were focused on MNH, and they received 32% of the global health funding.
- The majority of global health innovation funding ~US\$385M focused on under 5 child health (e.g. pneumonia, diarrhea), infectious diseases (e.g. malaria, TB), and/or HIV.

## Newborn health had more innovations and received more investment than maternal health

Twenty-eight percent of global health innovations were focused on MNH, receiving a total of US\$197,120,375. This represented 457 innovations, and nearly all the funding for these innovations were verified.<sup>4</sup> For both funded and unfunded innovations (see Figure 1), there were more newborn health innovations than maternal health innovations. Newborn health innovations received more investment, just over US\$127M, while maternal health innovations received US\$96.7M (see Figure 2). Some innovations address both maternal and newborn health issues, and therefore were counted in each category.

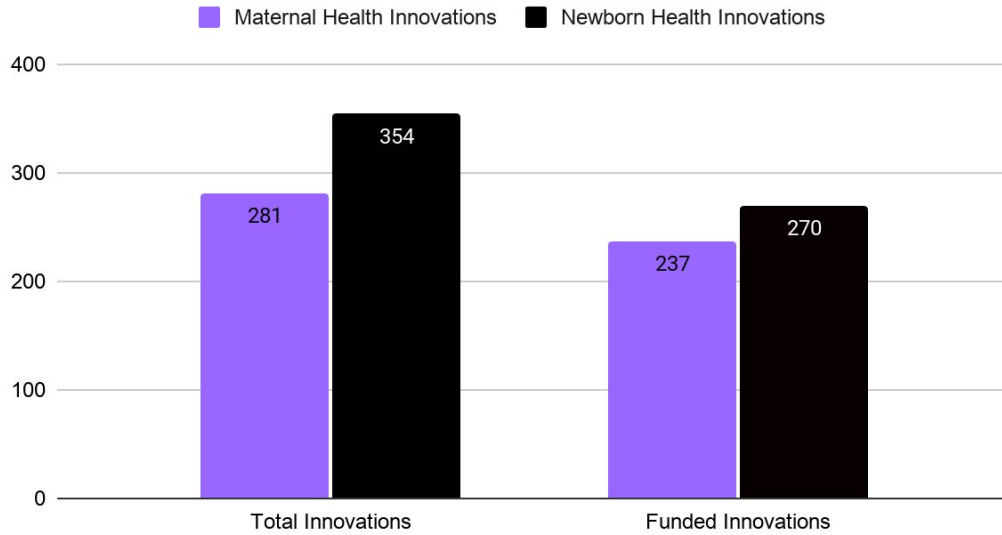


Figure 1. Number of total and funded innovations in maternal and newborn health. (The difference represents unfunded innovations.)

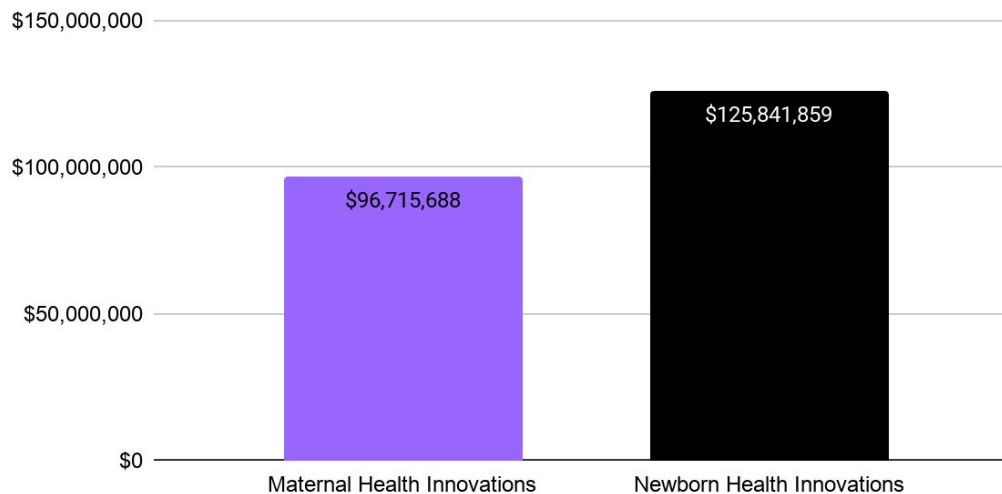


Figure 2. Aggregate funding to maternal and newborn health innovations. As noted earlier, the newborn health total does not include the NEST 360 funding which would represent as much as 55–60% above the \$125.8M accounted for in this analysis. Amounts are in USD.

## Universities received majority (46%) of MNH innovation funding, approximately \$90.7M

Universities were the most common type of organization that received funding for both maternal and newborn health innovations (see Figures 3a and 3b). They also received the most

funding in both categories, a total of US\$90.7M, which was 46% of the overall funding to MNH innovations.

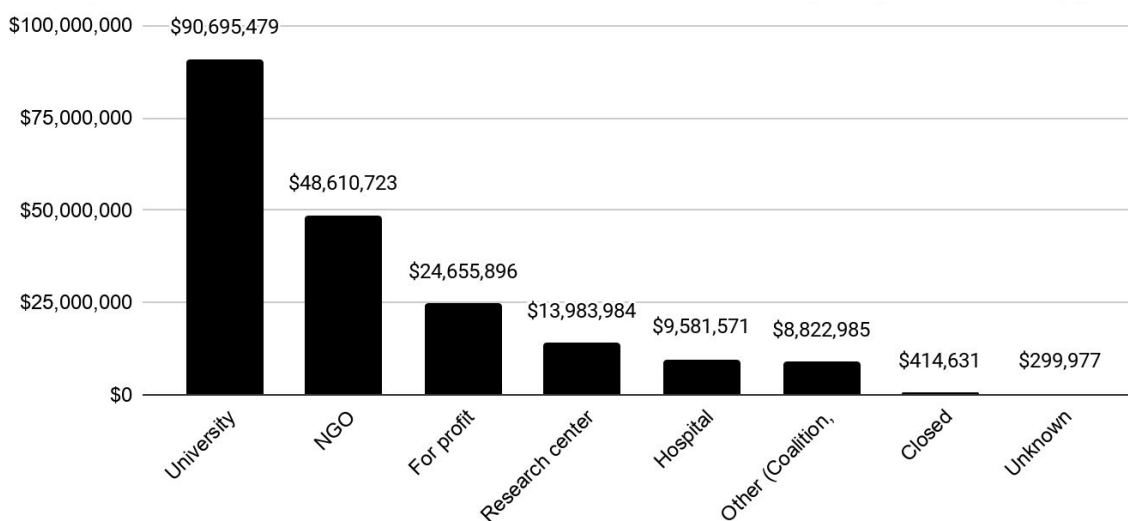


Figure 3a. Funding to maternal and newborn health innovations by organization type. Amounts are in USD. “Other” refers to coalitions, professional associations, hybrid organizations, governments, corporate social responsibility (CSR) programs, and consulting firms.

Universities made up 41% of maternal health innovations receiving US\$39M, and 44% of newborn health innovations receiving US\$55.7M.

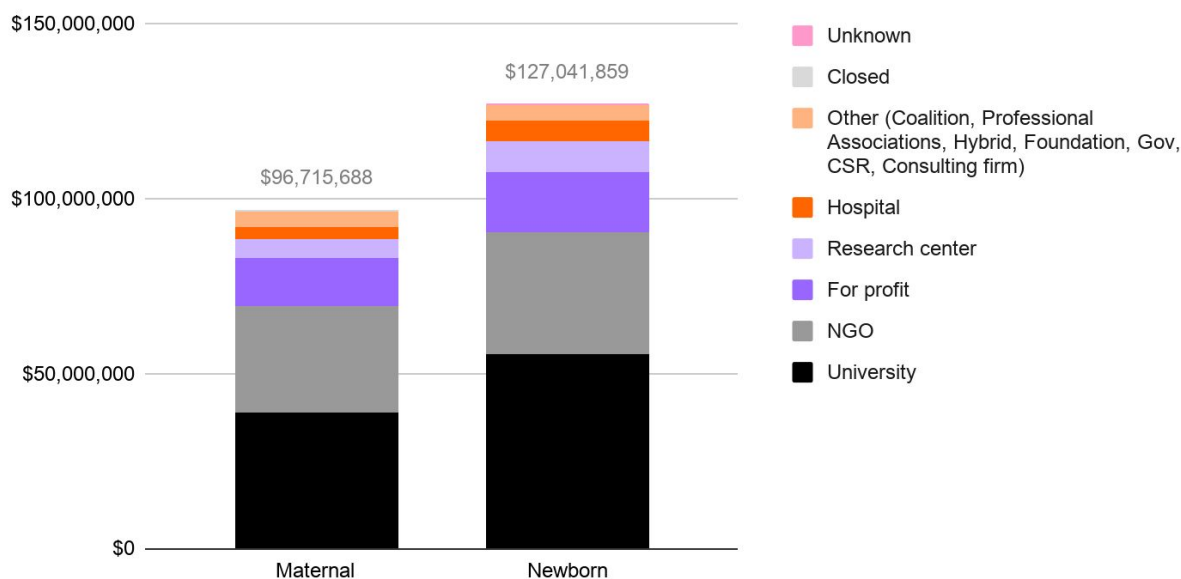


Figure 3b. Funding to maternal and newborn health innovations by organization type. Amounts are in USD.

Johns Hopkins University (USA) received the most funding with US\$8.2M for nine innovations (See Table 1). Makerere University in (Uganda) received the most individual investments in MNH (11 projects), but the total funding received was smaller than other universities at US\$1.7M.

Table 1. Top five universities who received the most MNH funding. Amounts are in USD.

University	Funding amount
<a href="#">Johns Hopkins University (USA)</a>	\$8,244,581
<a href="#">Universidade Catolica de Pelotas (Brazil)</a>	\$5,666,496
Monash University (Australia) ( <a href="#">multiple innovations like this one</a> )	\$3,999,974
University of California at San Francisco (USA) ( <a href="#">multiple innovations like this one</a> )	\$3,815,850
<a href="#">William Marsh Rice University (USA)</a> <sup>7</sup>	\$3,589,725

Non-governmental organizations or NGOs (24%, see Table 2) and for-profit companies (13%, see Table 3) were also common organization types that received MNH innovation funding. NGOs received roughly US\$48.6M and for-profit companies received US\$24.7M. Of note, PATH received investment for 17 different innovations in both maternal health (e.g. [Preeclampsia diagnostic](#)) and newborn health (e.g. [Nifty Cup](#), [bCPAP](#)). JHPIEGO received investment for 4 different innovations (e.g. [HemoGlobe: Revitalizing Maternal anemia Prevention and Treatment Globally](#)). This is different from other NGOs, like Living Goods, whose organizations are formed around one innovation and have focused on scaling that particular innovation.

Table 2. Top five NGOs who received the most MNH funding. Amounts are in USD.

NGO	Funding amount
<a href="#">Living Goods</a>	\$6,737,020
<a href="#">Nexleaf Analytics</a>	\$5,099,550
<a href="#">PATH (multiple innovations)</a>	\$4,808,336
<a href="#">D-Tree International</a>	\$3,449,859
<a href="#">JHPIEGO (multiple innovations)</a>	\$2,600,000

There were more for-profit newborn health innovations (e.g. [OMOMI](#) – a newborn growth monitoring app) than maternal health innovations (e.g. [Healcerion](#) – a point of care ultrasound).

<sup>7</sup> GIE’s funding data does not include the US\$68–75M+ that NEST 360 Rice University was estimated to have received from the MacArthur Foundation, BMGF, the Lemelson Foundation, and other donors related to the 100&Change-initiated program (Rice 2020).

The 41 for-profit newborn health innovations also received US\$17.1M which was more than the US\$13.8M that the 33 for-profit maternal health innovations received.

Table 3. Top five for-profits who received the most MNH funding. Amounts are in USD.

NGO	Funding amount
<a href="#">Laerdal's Moyo fetal Heart Rate Monitor</a>	\$5,625,000
<a href="#">CommCare by Dimagi</a>	\$2,715,106
<a href="#">Changamka</a>	\$2,250,000
<a href="#">Chlorhexidine Navi Care Program (CNCP)</a>	\$2,000,000
<a href="#">BEMPU TempWatch</a>	\$1,726,785

## Service delivery and software innovations received the most funding

Innovations in global health are often assumed to be hardware or devices, but our analysis showed that Service Delivery followed by Software received the most funding in MNH, totaling almost 40% (see Figure 4). Overall, however there was a relatively even distribution across types: Service Delivery, Software, Hardware, Diagnostics, and Pharma represented 14–19% of funded innovations each.

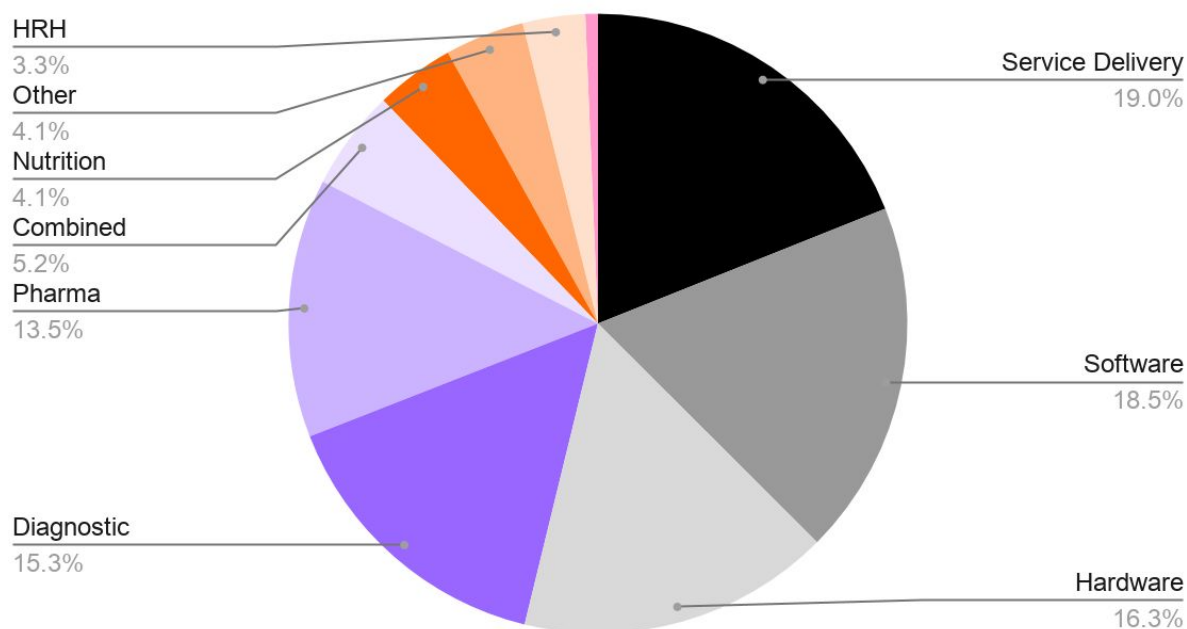


Figure 4. Type of funded maternal and newborn health innovations. HRH refers to Human Resources for Health.



The amount that these different types of innovation received, however, varied dramatically (See Figure 5). Service Delivery received the most funding with US\$59.2M. Service delivery focusing on maternal health innovations received US\$33M which is nearly *three times* more funding than maternal health Hardware innovations, which only received US\$10.1M.

Table 4. Top seven Service Delivery innovations who received the most MNH funding. (Four innovations received the same amount.) Amounts are in USD.

NGO	Funding amount
<a href="#">Living Goods</a>	\$6,437,020
<a href="#">Improving Adolescent Newlywed Nutrition and Health for pregnancy in Bangladesh and Health Across Early Life Stages in South Asia</a>	\$4,999,952
<a href="#">Muso</a>	\$2,250,000
<a href="#">Que Vivan Las Madres,</a>	\$2,000,000
<a href="#">PIERS on the Move – transitioning from preeclampsia to pregnancy and neonatal care TTS grant (2)</a>	\$200,000
<a href="#">Chlorhexidine Navi Care Program (CNCP)</a>	\$2,000,000
<a href="#">Africare</a>	\$2,000,000

Hardware innovations focusing on newborn health, received 2.1 times more funding than maternal health Hardware innovations (see Figure 5). Pharma innovations focusing on newborn health received 2.3x more funding than maternal health pharma innovations. The majority of innovations that “Combined” different approaches (e.g. software and service delivery) focused on newborn health.

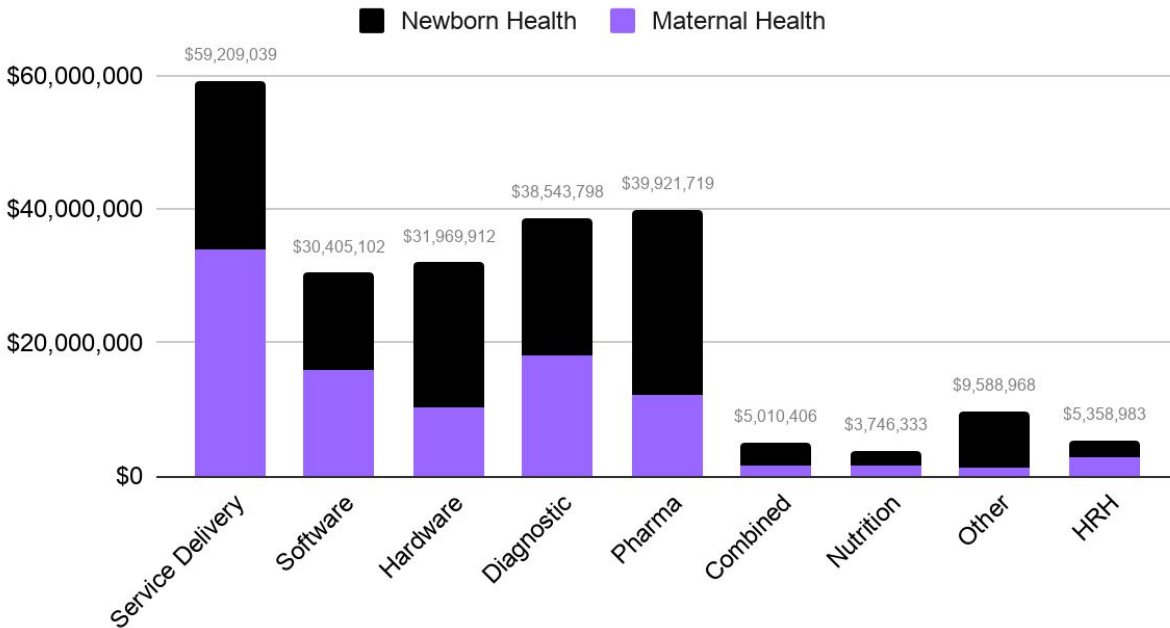


Figure 5. Type of innovations by total amount funded. HRH refers to Human Resources for Health. Amounts are in USD.

## What was the result of the funding? What stage of scale did the innovations reach?

After understanding the amounts of funding and where they were going, we turned to look at what happened with that funding, that is: how successful were innovators in creating solutions that led to impact? To do this we used Equalize Health’s five-stage scale to indicate the success of the innovation. Equalize Health defines success as economically-sustainable impact at scale with the ultimate goal of creating global change:

1. **Stage 1: Piloting or multi-site trials** – The innovation is externally-supported (e.g. donors) uptake in more than one geography. (Not yet scaling)
2. **Stage 2: On trajectory to achieve (sustainable) scaling** – On a path to achieve sustainable organic growth or replication without external support or intervention within a reasonable and definable period.
3. **Stage 3: (Sustainable) scaling** – Innovation will have continued impact growth without external support or intervention
4. **Stage 4: Mature scaling** – Broad and sustainable uptake in high-need regions, measurably closing need gap, brand ubiquity.
5. **Stage 5: Global change** – Innovation addresses a healthcare gap in a way that permanently shifts norms in industries, approaches, and mentalities. The innovation(s) has created equity such that treatment or outcomes are on par with high-income areas.

(For more information, see Appendix C.) We assessed each project as to which stage it would be classified as in August–September 2020. To note, the timeframes of the innovations periods vary across projects.

## The majority of MNH investment is made and remains at early stage innovations

The results (see Figure 6) revealed, as might be expected, that most innovations remained clustered in early stages:

- More than 40% of funded MNH innovations were at *Stage 1: Piloting*, and these innovations received nearly US\$72.7M.
- Less than 10% of MNH innovations were classified as *Stage 3* or higher, and the innovations in these three stages received less than half the *Stage 1* investment at US\$32.5M.
- *Stage 1* innovations were highly varied in their progress. For example, [MSCAN](#), a *Stage 1* innovation, is trying to refine their business model to ensure financial sustainability, while the University of Witwatersrand’s (South Africa) [ultrasound](#) is in the midst of an active clinical trial.

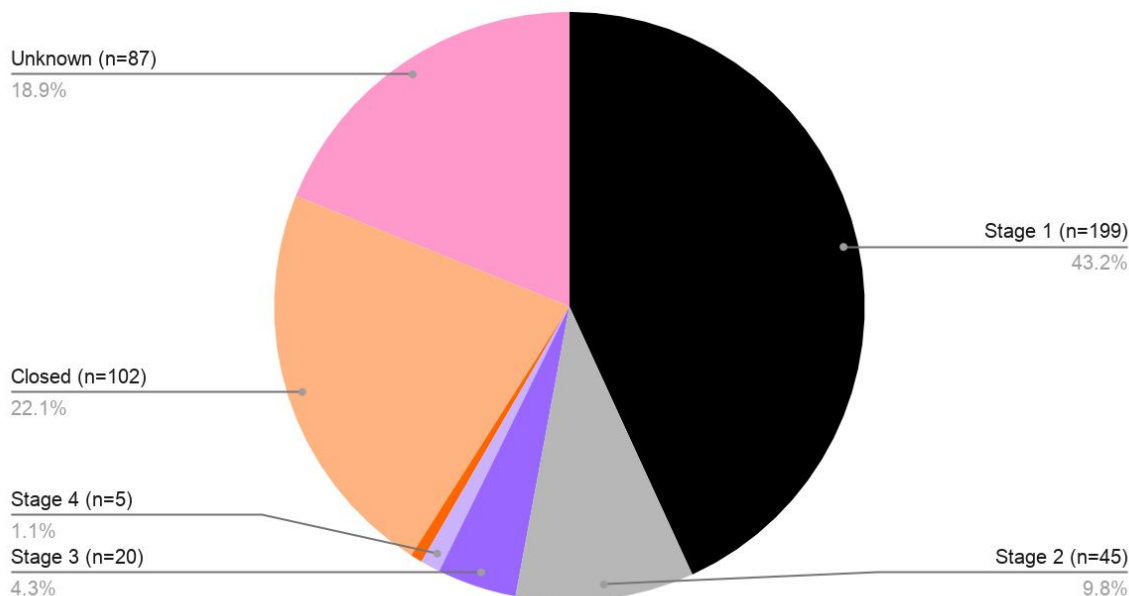


Figure 6. Maternal and newborn health innovation by stage of scale at time of analysis (Q3'2020). These innovations received funding from 2005 to the time of the analysis. *Stage 5* had two innovations and represents less than <0.5%.

As seen in Figure 6, 22.2% of MNH innovations were classified as “closed,” which means that there was no evidence of continued work on the innovation. Through our research we learned that the reasons for innovations not continuing ranged from lack of funding to implementation issues. For other projects we classified as closed, innovators noted the project “completed” or

their websites led to 404 errors. We also learned of cases where the innovator was no longer working in maternal and/or newborn health; for example, a maternal health innovator whose was applying a low-cost sensing strip to diagnose preeclampsia is now applying her expertise in organic electronics to engineer a new electrolyte for lithium metal batteries. In another example, the innovator’s company was acquired, and MNH was not part of the new company’s mission.

As can be seen in Figure 7, the scaling stages achieved by the maternal health innovations and newborn health innovations were similar. For example, 13% of maternal health innovations and 10% of newborn health innovations were classified as *Stage 2: Trajectory to Achieve Scale*.

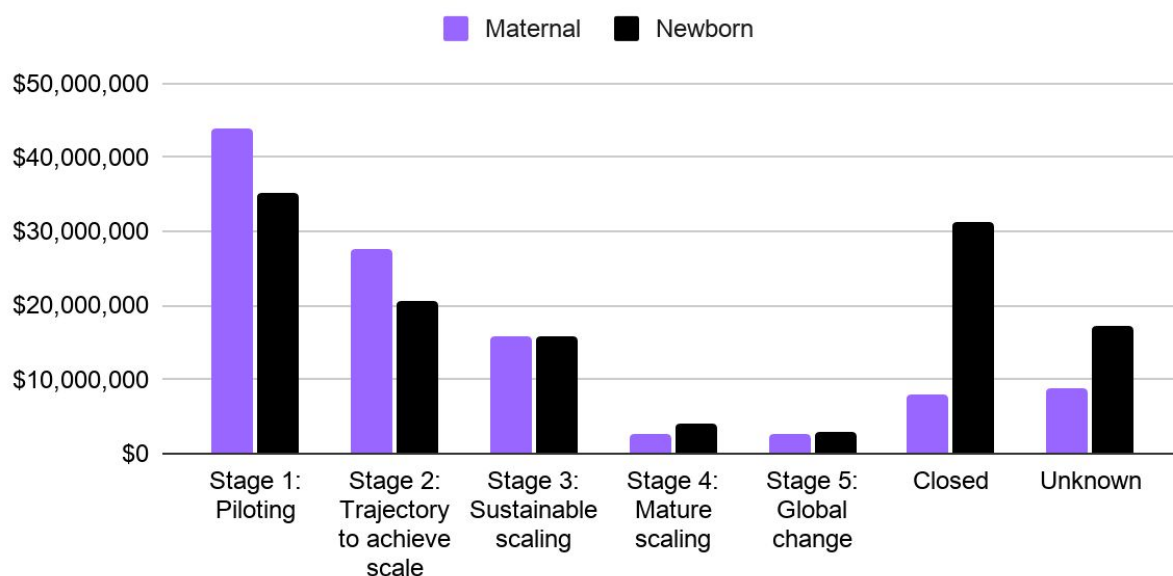


Figure 7. Stage achieved by maternal and newborn health innovations at time of analysis (Q3'2020). These innovations received funding from 2005 to the time of the analysis.

## Most MNH funding goes to universities and they represent the majority of early stage, unknown, and closed projects

The majority (66.3%) of *Stage 1* MNH innovations are at a university, while innovations at later stages were more likely to be at NGOs or for-profits companies (see Figure 8). University innovations were also the largest proportion (74%) of closed innovations.

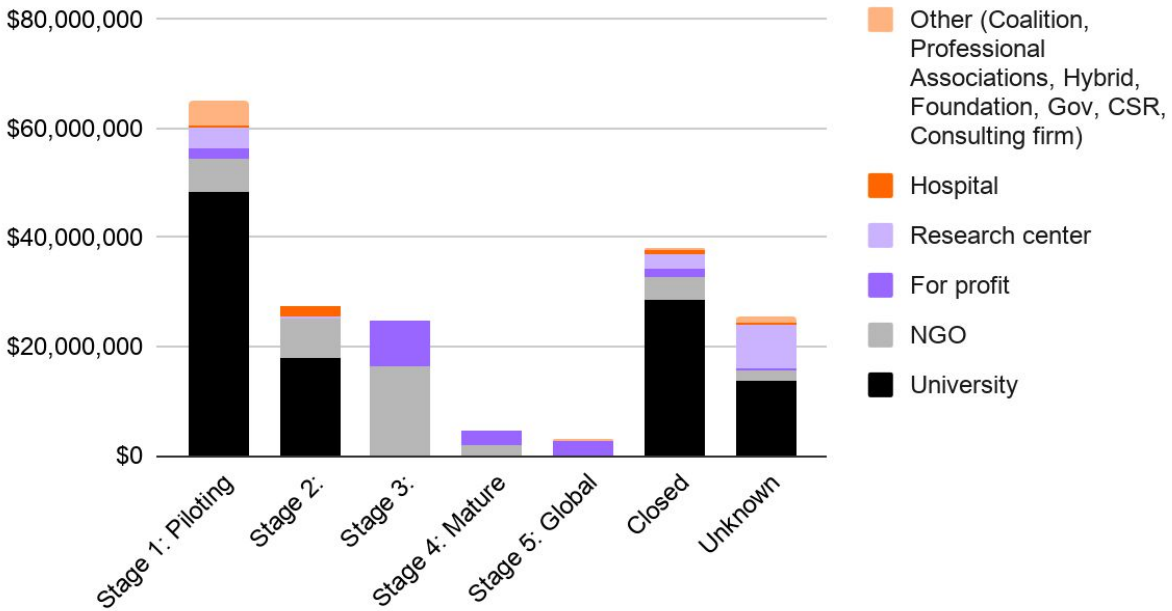


Figure 8. Stage of innovation achieved by type of organization (Q3'2020). These innovations represent a range of start dates from 2005 to the time of the analysis. Amounts are in USD.

Stage 3: (Sustainable) scaling and higher stage projects were either NGOs or for-profits, with only for-profits achieving global scale. The numbers, as expected, drop off considerably with 20 innovators achieving Stage 3, five innovators achieving Stage 4, and two innovators achieving Stage 5. (See Appendix D for the list.)

## How Does this Analysis Compare to Others?

We are encouraged that this analysis seems to reflect similar trends found by others in the sector. The Saving Lives at Birth (SL@B) grant program both had an MNH and innovation focus. First, universities and non-profit organizations were the most common funding recipients in a recent [analysis of the SL@B portfolio](#)<sup>8</sup> (Duke 2020). While the SL@B analysis categorized the stage differently than we did, the findings similarly show more early stage innovations. In the SL@B portfolio, funding is more heavily concentrated in devices and diagnostics (61%) than in GIE where hardware and diagnostics constitute 32%.

Innovation investment is a small proportion of larger global health aid. [DonorTracker.org](#) developed by SEEK Development indicated that in 2017, funding for global health reached an all-time high of US\$24.3B and was US\$108.5B for the period 2013–2017. Innovation investment when compared to these figures is tiny: in 10+ years funding to innovation represents 0.6% of the total amount spent 2013–2017. We also reviewed the Institute for Health Metrics and

<sup>8</sup> The SL@B portfolio of innovations are included in GIE's database.

Evaluation's [Financing Global Health database](#) and [recent report](#), however their data does not focus on innovations nor does it include funding at the innovator-level.

## Limitations of this analysis

This analysis only includes innovation funding data published on GIE and DRKF's website and represents an unknown percentage of all global health maternal and newborn innovation funding. We are aware of other sources of innovation funding (e.g. MacArthur Foundation) that have not yet been shared with the global community via GIE. Additionally:

- While GIE includes a range of international donor data, it is largely North American. (See Appendix A.) We are aware of other funding sources to support global health innovation, including, for example, the Government of India which has robust support for emerging global health med tech. Only their [Grand Challenges India portfolio](#) is in GIE.
- Equalize Health recognizes that the stages of scaling used in this analysis do not match others, including those on GIE. Our definition of stage has a focus on achieving broad, sustainable impact without ongoing donor support. Scaling and success are both terms used in the global health sector that lack common definitions. While we recognize the high bar of achieving global change (*Stage 5*), we believe that it is necessary to drive the planning, strategy, and incentives in the structure to achieve these shared goals. (See Appendix C.)
- The project timeframes for this analysis varied. Some innovations may have existed several months, while others 12+ years, although the data is grouped together. Parsing the data by duration was beyond our resources at this stage. Since our analysis did not take time into consideration, it is possible that an innovation may still be executing on the funding they received. For example, if an innovation was *Stage 1* and received funding within the past year it might make sense that it is still *Stage 1* at the time of the analysis. Upon initial review of the funding data in GIE we did not see a disproportionate amount of funding within the year before the analysis. The University of Washington's (USA) Institute of Health Metrics and Evaluation's analysis of broader development assistance for health shows an increasing trend in maternal health and newborn health (along with reproductive health and child health) - which is encouraging (IHME 2020).
- While in many cases we reclassified the stage of innovations, much of the information that the classification was based on was self-reported information by the innovators. Innovators, due to the nature of the global health sector and funding, are incentivized to overstate their progress and achievements.
- Our analysis would benefit from further analysis to estimate the return on these investments and look at the timeframes of the innovations. Those additional steps were beyond the scope of this analysis, but we welcome researchers interested in carrying the project forward.

We would advocate for ongoing and deeper analysis to be conducted regularly as new funding data is added to GIE's database.<sup>9</sup> Sharing data and investing in transparency and openness will best support the strengthening of models and methods to achieve global health goals.

## There's more to dig into

We found in doing this analysis that it raised more questions that we believe could better inform the sector, innovator support, and funding trends:

- What does it say about the ecosystem when a majority of resources are directed to early stage innovations, especially at universities which are not structured to scale innovations?
- Scaling is difficult in any sector, but what are systematic ways to address the barriers for MNH innovations? What lessons can we learn from relevant for-profit investing models and by leveraging partnerships? Is there a need for new mechanisms to fund mezzanine and later stage innovations poised for scale?
- Why don't we – as a sector – know more about the “closed” innovations? Why did they close and what might we learn from them and those classified as “unknown”? How can our sector encourage these conversations?

We recognize that this is a unique type of analysis, and it is also incomplete. We were able to explore the questions posed, but are limited by the data and resources we have available. We welcome others to share their takeaways and questions, and urge others to support GIE's efforts, contribute data, and further this analysis.

## Conclusion

By analyzing US\$197M of investment into maternal and newborn health innovations, we found that a majority of investment (US\$72.7M) was made to early stage innovations. The heavy reliance on universities to develop global health innovation coupled with the lack of later stage innovations may signal an imbalance within the maternal and newborn health ecosystem – if the goal is impact at scale. Further, there is a relatively higher percentage of innovations that are unable to progress beyond *Stage 1: Piloting*. Better understanding the reasons for this (and addressing those), as well as for innovations that close or are of an unknown status, will likely improve the sector's performance. We see this analysis as a first step in greater transparency in global health innovation, and call on other actors to expand and extend this work. The maternal and newborn health problems that we are all addressing are urgent. Lives literally depend on it.

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<sup>9</sup> To do that, please contact: [admin@globalinnovationexchange.org](mailto:admin@globalinnovationexchange.org)

## Acknowledgements

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## Appendix A – List of Funders included in analysis

### GIE Data Champions

[Bill & Melinda Gates Foundation](#)

[Grand Challenges Canada](#)

[USAID](#)

[Australian Department of Foreign Affairs and Trade](#)

[KOICA](#)

[Expo 2020](#)

[MIT SOLVE](#)

[Global Innovation Fund](#)

[Human Development Innovation Fund](#)

[GSMA Ecosystem Accelerator](#)

[Ygap](#)

[Grand Challenges IndiaKenya Climate Innovation Center](#)

[OpenIDEO](#)

[Villgro Kenya](#)

[Skoll-USAID Innovation Investment Alliance](#)

[Hague Institute for Innovation of Law](#)

[Elrha](#)

[Gray Matters Capital](#)

[Konbit](#)

[UNLEASH](#)

[Agora Partnerships](#)

### Additional Data

Funding data from Draper Richards Kaplan (DRK) global health [portfolio](#) was also included in the analysis, specifically innovations that met the criteria for this analysis. DRK has a standardized funding amount and process ([see details here](#)).

## Appendix B – GIE Search Methodology

We ran two searches on the database exploring the distribution of funding to global health innovations.

First, in Round 1 we ran a search for the focus areas, such as “Maternal Newborn and Child Health” and keywords, such as “asphyxia” and “breastfeeding.” Subsequently, we removed innovations with “bench science” keywords to remove innovation profiles that were in the very early exploratory phase (e.g. that were unable to be tested in humans such as animal models). We removed innovation profiles that were defined as led by M&E firms, research (e.g. understand risk factors or transmission for a disease or condition), and programs.

Next, in Round 2 we conducted searches with combinations of focus areas and topics, for example Health AND Technology or Maternal Newborn and Child Health AND HCD.

## Appendix C – Equalize Health’s Definition of Scale

Scaling is a widely-used term in the global development community to refer to anything from replicating pilots to entering new commercial markets. In defining scale, Equalize Health sought a staged (rather than binary) definition of scale with an emphasis on sustainable impact. As the goal of any global health initiatives is – or should be – to close a quality healthcare gap at the global scale, we set closing a gap as the indicator of ultimate success or the final stage.

As a contrasting reference, we include GIE’s definitions for scaling by which innovators were asked to self assess, which includes stages of innovation development (their stages 1–3, grey) similar to our *Stage 1* that we consider pre-scaling. GIE’s definitions are adapted from [IDIA’s Scaling Stages](#).

Equalize Health definitions of Scaling	GIE definitions for Scaling
<p><b>Stage 1: Piloting or multi-site trials-</b> Externally-supported uptake in more than one geography. (Not yet scaling)</p>	<p><b>Stage 1: Ideation-</b> You are defining and analyzing the development problem and generating ideas for potential innovations to address the problem.</p>
	<p><b>Stage 2: Research &amp; Development-</b> You are developing a specific innovation that has the potential to address a development problem you've identified</p>
	<p><b>Stage 3: Proof of Concept-</b> The intellectual concept behind this innovation has been field-tested to gain an early 'real-world' assessment of its potential.</p>
	<p><b>Stage 4: Transition to Scale-</b> This innovation has demonstrated small-scale success and you're developing the business model and attracting partners to help fill gaps in your capacity to scale.</p>
<p><b>Stage 2: 'Trajectory to achieve' (sustainable) scaling-</b> On a path to achieve sustainable organic growth or replication without external support or intervention within a reasonable and definable period.</p>	<p><b>Stage 5: Scaling-</b> You are replicating and/or adapting this innovation across large geographies and populations for transformational impact.</p>
<p><b>Stage 3: (Sustainable) scaling-</b> Innovation will have continued impact</p>	

<p>growth without external support or intervention</p>	
<p><b>Stage 4: Mature scaling</b>– Broad and sustainable uptake in high need regions, measurably closing need gap, brand ubiquity.</p>	<p><b>Stage 6: Sustainable Scale</b>–This innovation has reached wide-scale adoption or operation at the desired level of scale/exponential growth, sustained by an ecosystem of actors.</p>
<p><b>Stage 5: Global change</b>– The goal of scaling in the social sector: permanently shifts norms in industries, approaches, and mentalities to solve a user-defined problem. (Solve = outcomes match those in high income markets or geographies)</p>	

## Appendix D – Innovations achieving Stage 3 or above

Stage	Innovation
3	<a href="#">Africare</a>
	<a href="#">All Babies Count (ABC)</a>
	<a href="#">D-tree International</a>
	<a href="#">East Africa Public Health laboratory Networking Project</a>
	<a href="#">GiftedMom</a>
	<a href="#">Gradian Health Systems</a>
	<a href="#">Healcerion</a>
	<a href="#">Helping Babies Breathe</a>
	<a href="#">Living Goods</a>
	<a href="#">Moyo fetal Heart Rate Monitor</a>
	<a href="#">On site, fast and low cost diagnostic of tuberculosis and HIV for mothers and newborns</a>
	<a href="#">Totohealth</a>
	<a href="#">PATH- Field Validation of a New Protein-To-Creatinine (PrCr) Strip test: An Impactful New Tool to Improve Diagnosis of Preeclampsia at the Front Lines of Antenatal Care in Low-Resource Settings</a>
	<a href="#">PATH- Low-cost, point-of-care screening and diagnosis of preeclampsia/eclampsia: novel biomarkers in a lateral-flow test</a>
	<a href="#">PATH Nifty Cup</a>
	<a href="#">LifeAssay Diagnostics (Pty) Ltd.-Advancing a Protein-to-Creatinine Rapid test for Determining Proteinuria Status as an Onset Indicator of Preeclampsia/eclampsia</a>
	<a href="#">JSI- cStock: A system strengthening approach to making life saving commodities available to community health workers</a>
	<a href="#">mHero</a>
	<a href="#">Mobile Technology for Community Health (MoTeCH)</a>
	<a href="#">Chipatala Cha Pa Foni (CCPF) – Health Center By phone</a>

4	<a href="#">Giving every baby an equal chance of a healthy life</a>
	<a href="#">Lucky Iron Fish™</a>
	<a href="#">Meds &amp; Food for Kids</a>
	<a href="#">Chlorhexidine Navi Care Program (CNCP)</a>
	<a href="#">D-Rev (now Equalize Health)</a>
5	<a href="#">CommCare by Dimagi</a>
	<a href="#">Newborn Heart Rate as a Catalyst for Improved Survival</a>