



Cambridge
Global Health Partnerships

Evaluating the impact of a maternal and neonatal health partnership between hospitals in Kampala and Cambridge

**A social return-on-investment (SROI) analysis,
prepared by Costello Medical in collaboration
with Cambridge Global Health Partnerships**



Foreword

Cambridge Global Health Partnerships (CGHP) started work in 2007 and exists to inspire and enable people to improve healthcare globally, developing and managing health partnerships between National Health Service (NHS) institutions in Cambridge and the East of England with hospitals and health services in the global majority world.

We have much anecdotal evidence of the positive impact of our work and were eager to try to understand this in economic terms. However, assigning values to activities that rely upon the goodwill of volunteers, and are based around saving lives and improving health, is challenging. One way in which to achieve this is social return-on-investment (SROI) analysis, an outcomes-based framework that enables organisations to understand, quantify and monetise the social and economic value created through their services. In 2017, we conducted a SROI analysis of the health partnership between Cambridge and El Salvador.

Five years later, we are very pleased to have worked with Costello Medical, who provided their expert services on a pro bono basis, to conduct a SROI analysis of the Kampala-Cambridge maternal and neonatal health partnership. This analysis successfully captured a breadth of outcomes achieved by the partnership, and the results identify a positive ratio between the money invested and the value delivered; the results of the analysis are summarised in a detailed technical report and this summary report.

We are delighted that the results of the SROI analysis complement the anecdotal evidence of the benefit of our work, and serve to communicate the value of our activities to a broader audience.

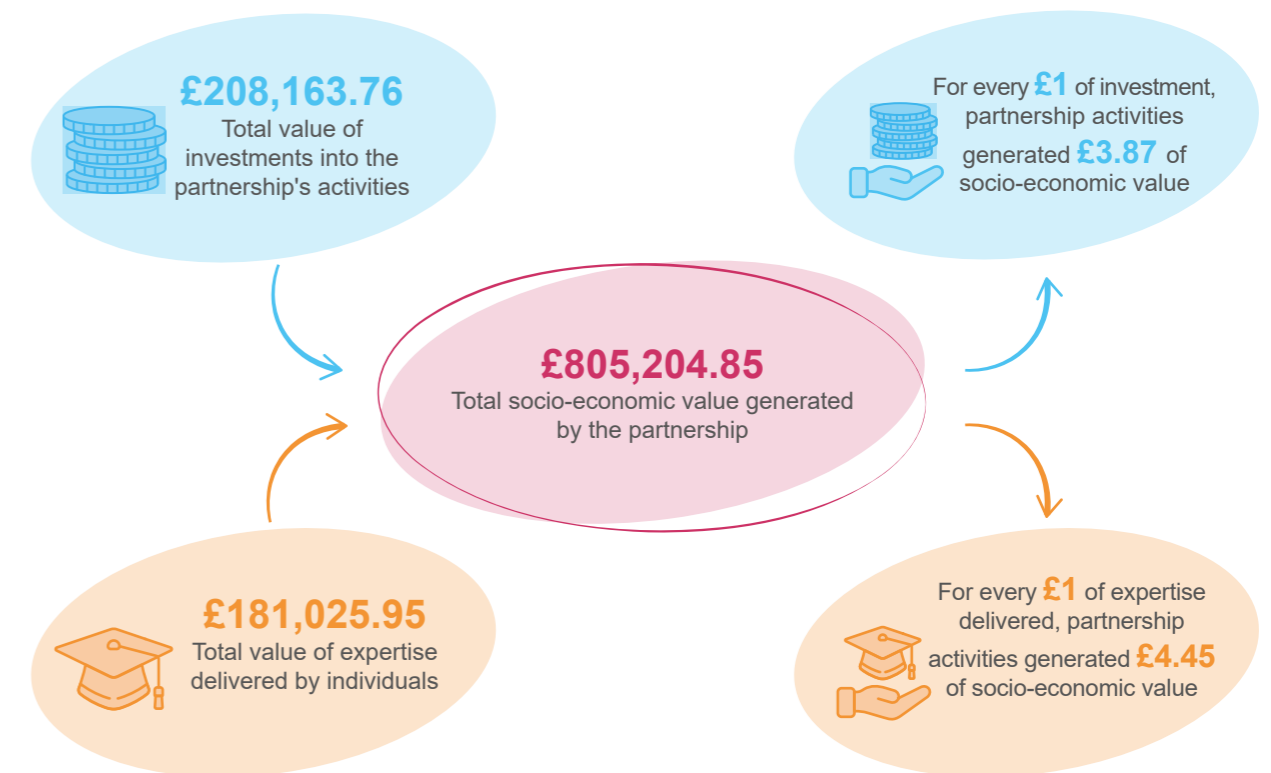
Evelyn Brealey
Director, CGHP



Executive Summary

Costello Medical and CGHP worked collaboratively to conduct a SROI analysis that aimed to identify and monetise the outcomes of the maternal and neonatal health partnership between hospitals in Cambridge, UK, and Kampala, Uganda.

The analysis explored the socio-economic impact of partnership activities between January 2015 and October 2021; the results are summarised below:



The analysis demonstrates the ability of CGHP to capitalise on monetary and time-based inputs to generate a socio-economic value equivalent to almost four times the initial investment, indicating effective and efficient utilisation of resources to achieve transformative impact. The analysis confirmed the value of healthcare professionals' time and expertise as a major contributor to the partnership's impact, and this socio-economic

value was generated across healthcare professionals and providers in Uganda and the UK.

Certain outcomes and key beneficiaries were excluded from the analysis due to limitations in the available data. Therefore, the impact of the health partnership is likely to be even greater than that captured within this analysis.

The Kampala-Cambridge Health Partnership

The health partnership between maternity hospitals in Kampala and Cambridge was established in 2015, and has focused on addressing two key health challenges:

1 Maternal and neonatal health

High Ugandan maternal and neonatal mortality rates (336 and 1,901 per 100,000 births, respectively) show that there is a considerable need to improve obstetric care provision in Uganda.^{1,2} The frequent occurrence of obstetric syndromes such as pre-eclampsia, preterm birth and stillbirth, and the considerable proportion of births delivered via emergency caesarean sections, contribute towards these high mortality rates.^{3,4}

The Kampala-Cambridge health partnership aims to address these challenges through facilitating cross-border collaboration between multidisciplinary teams in the UK and Uganda. The bilateral nature of the approach yields benefits for stakeholders on both sides of the partnership including healthcare professionals, healthcare providers, mothers and newborns, as well as the wider global community.



1. United Nations International Children's Emergency Fund (UNICEF). Neonatal mortality. 2023; 2. United Nations Population Fund (UNFPA). Fact sheet on teenage pregnancy. 2021; 3. Ssali Z. Assoc. Prof. Annettee Nakimuli wins US\$1M grant for maternal health research. 2021; 4. Nakimuli, A; Starling, JE; Nakubulwa, S *et al.* Relative impact of pre-eclampsia on birth weight in a low resource setting: A prospective cohort study. 2020; 5. The Government of Uganda. Uganda: Antimicrobial resistance national action plan 2018–2023. 2022; 6. The Fleming Fund. Case Study: Breaking down AMR barriers in Uganda. 2022.

Activities delivered as part of the Kampala-Cambridge health partnership

Increasing confidence and status of nurses and midwives

To improve their involvement in cross-functional healthcare teams and equip them to actively shape service development.



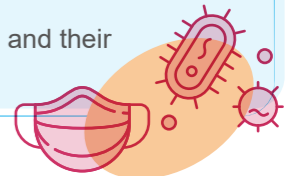
Collaboration on research publications and co-development of an academic textbook

To share knowledge and increase the availability of information on African obstetrics and best practice in the global community.



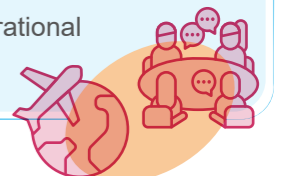
Antimicrobial stewardship (AMS) and infection prevention and control (IPC) training programme

To increase healthcare professionals' knowledge of AMS and IPC strategies, and their ability to implement these practices.



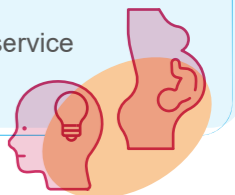
Reciprocal visits by healthcare professionals to hospitals in Cambridge and Kampala

To expose healthcare professionals to alternative models of organisation, operational management and ways of working in different settings.



Obstetric-focused electives for UK medical students

To increase students' confidence to influence and improve obstetric healthcare service delivery within hospitals.



Collaboration with behavioural scientists

To develop an understanding of the role of behaviour change strategies in AMS.



SROI Methodology

A SROI analysis was conducted to reveal the breadth and depth of the impact of the Kampala-Cambridge health partnership between January 2015 and October 2021.

The key objectives of the SROI analysis were to:



The results of the analysis were presented in the form of a SROI ratio; this indicates the amount of socio-economic value (£) generated per £1 of investment. A SROI ratio greater than 1 indicates a positive return-on-investment.

The flowchart presented on the opposite page details the step-by-step methodology undertaken during the SROI analysis to evaluate and monetise socio-economic benefit.

It should be noted that the lack of a universally accepted approach to SROI modelling, and the differences between organisations, their stakeholders and the activities they undertake, limit the extent to which meaningful conclusions can be drawn from the comparison of different organisations' SROI ratios.

The expertise of healthcare professionals, delivered primarily on a voluntary basis, was central to the success of the partnership. Therefore, a social return-on-expertise (SROE) ratio was calculated as an additional output of the analysis; this indicates the amount of socio-economic value (£) generated per £1 of expertise delivered.

To quantify expertise, the time voluntarily invested into the partnership by healthcare professionals that was considered to incur an opportunity cost to the employer (i.e. the UK or Ugandan healthcare provider) was valued. The total socio-economic benefit experienced by beneficiaries was compared to the total value of expertise invested into the partnership, yielding the SROE ratio.

Development of impact maps

Changes experienced by stakeholder groups, described as outcomes, were identified and linked to show how the impact of activities evolved and grew over time.



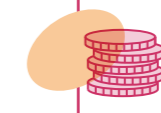
Identification of financial proxies

For each outcome modelled, a suitable financial proxy was identified, assigning a monetary value to the outcome. Financial proxies were derived from literature resources.



Identification of indicators

For each outcome modelled, indicators were used to identify the extent to which a change had taken place, ultimately aiming to capture the number of people who had experienced that change.



Adjustment to reflect real-world impact

To ensure that the analysis reflected the real-world impact of the partnership, two adjustment factors were applied to the outcomes evaluated in the analysis.



- 1. Deadweight** accounts for the fact that not all stakeholders who participated in the partnership benefitted from the activities.
- 2. Attribution** recognises that other organisations may provide overlapping support and similar benefits to stakeholders, and thus not all impact experienced by stakeholders may be attributable to CGHP.

Calculation of the SROI ratio

The collected data were used to quantify the total socio-economic benefit experienced by stakeholders. To calculate the SROI ratio, this was compared to the value of investments into the partnership.



The impact maps aimed to capture all areas of impact generated by the Kampala-Cambridge health partnership. However, to ensure that the results of the analysis were robust, only outcomes for which there were sufficient evaluative data were included in the SROI model.

To ensure the robustness of the analysis, data were obtained from CGHP's internal records wherever possible. Data were also sourced from published literature and assumptions were made when required, informed and validated by discussions with CGHP.

The primary analysis used the preferred assumptions for the adjustment factors, but scenario analyses were also conducted to explore the impact of raising or lowering these adjustment factors.

Results

The total investment into the Kampala-Cambridge health partnership between January 2015 and October 2021 was valued at £208,163.76, and partnership activities were estimated to generate £805,204.85 of socio-economic value, **yielding a SROI ratio of 3.87**. This indicates that, for every £1 invested into the health partnership, a socio-economic value for beneficiaries equivalent to £3.87 was generated. This suggests that CGHP utilised resources in an effective and efficient manner to achieve transformative impact.

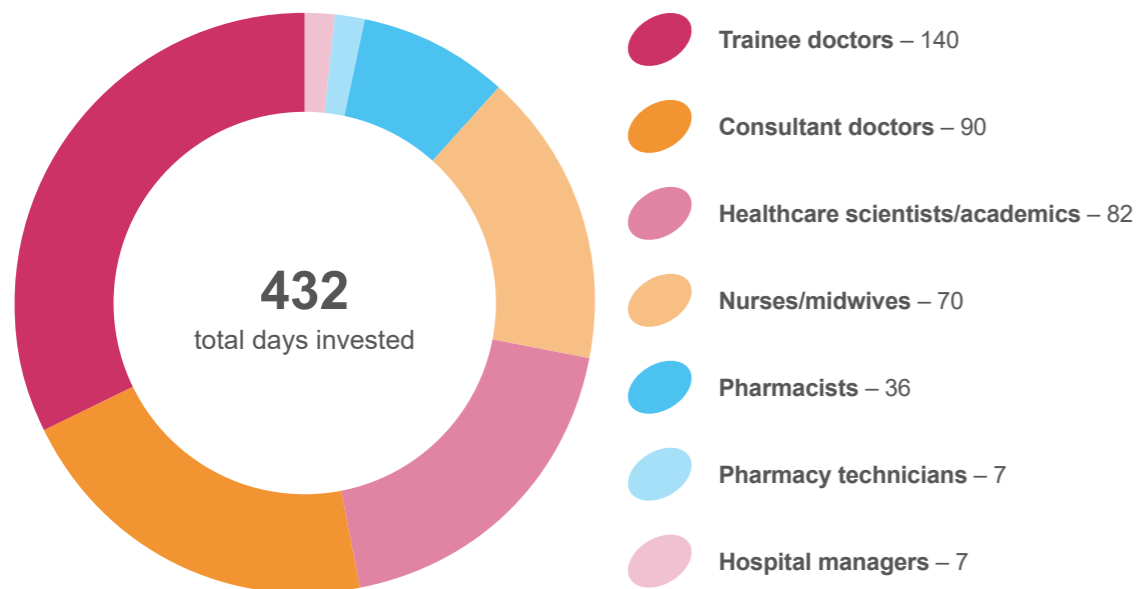
The total expertise, representing the monetised value of the time delivered by healthcare professionals to run the partnership's activities, was valued at £181,025.95, **yielding a SROE ratio of 4.45**. Therefore, the temporal investment of

healthcare professionals to the partnership was highly valuable and capable of generating a socio-economic return that was over four times the value of the initial expertise.

Who contributed their expertise?

Many healthcare professionals involved in the partnership shared their time and expertise on a voluntary basis, as described in the figure below, and the SROE ratio demonstrates the value of drawing from the knowledge and experience of a broad range of healthcare professionals. In particular, the emphasis on multidisciplinary collaboration is evident from the range of healthcare professionals involved in delivering the partnership's activities, including consultants, trainee doctors, nurses, midwives, pharmacists and behavioural scientists.

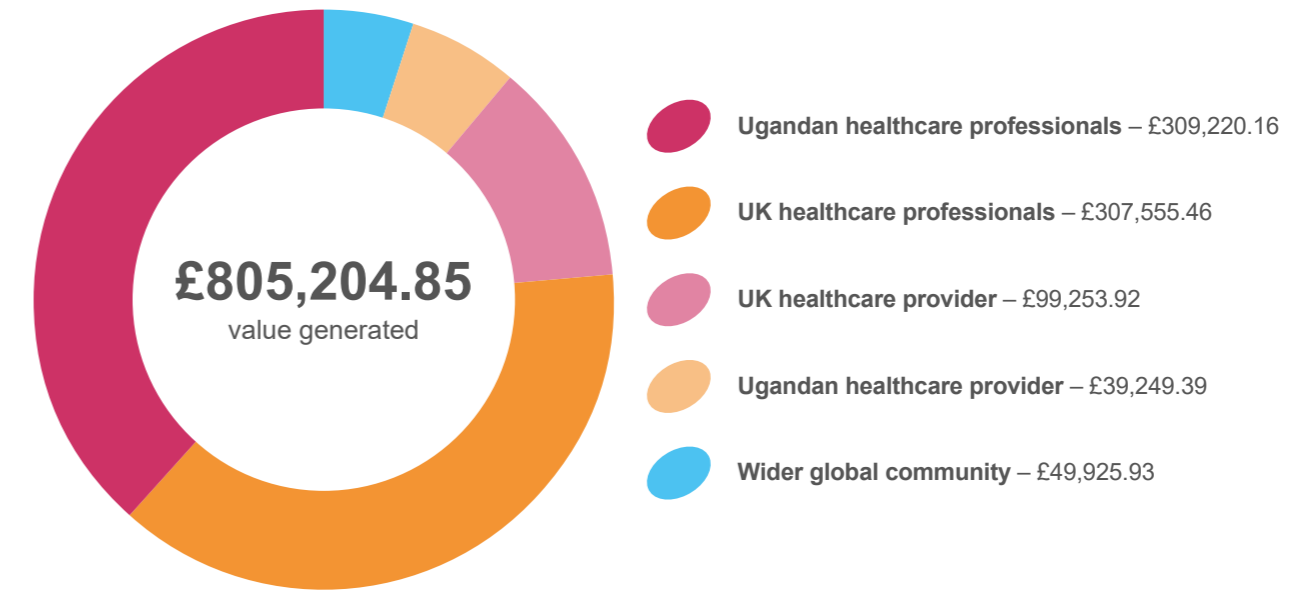
Amount of time invested by healthcare professionals



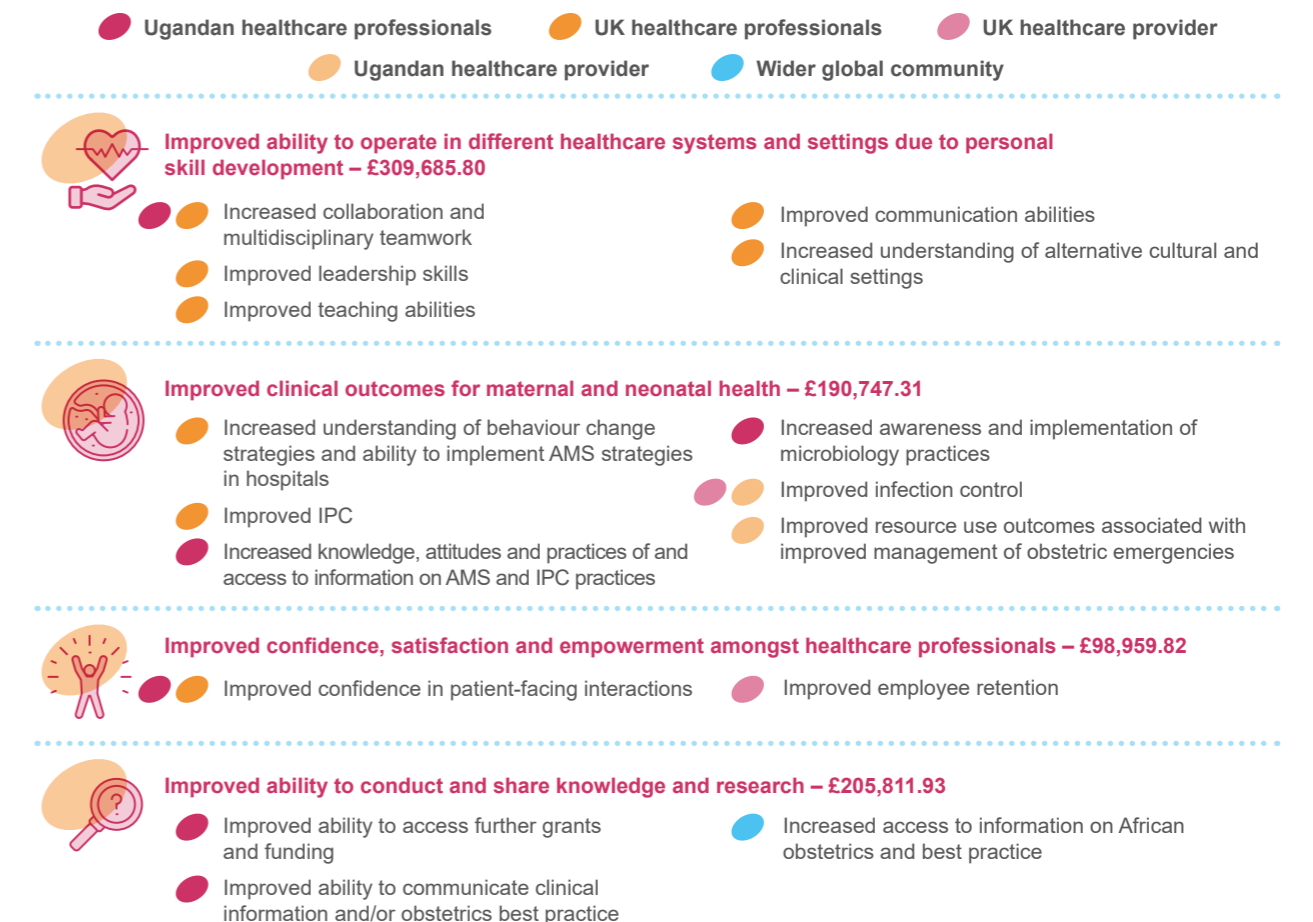
How did different stakeholders benefit from the partnership?

The analysis evaluated and monetised a wide range of the outcomes experienced by the different beneficiaries of the partnership's activities. Impact for various key stakeholder groups was captured, falling into four broad areas of benefit, as summarised on the opposite page.

Socio-economic value generated for each stakeholder group



Socio-economic value generated by outcomes across four key benefit areas



Healthcare professionals

Most of the socio-economic impact of the partnership was experienced by the healthcare professionals involved in the partnership activities.

Outcomes which provided the most value to UK healthcare professionals included:

- Improved understanding of alternative clinical and cultural settings
- Improved collaboration and multidisciplinary teamwork
- Improved leadership skills

Outcomes which provided the most value to Ugandan healthcare professionals included:

- Increased knowledge
- Implementation of improved microbiology, AMS and IPC practices
- Improved access to further grants and funding

Notably, the socio-economic impacts generated for UK and Ugandan healthcare professionals were found to be similar, showing how the bilateral nature of the partnership and the exchange of skills, knowledge and expertise yields benefits for healthcare teams in both settings.

Furthermore, the value of outcomes related to an improved ability to operate in different healthcare systems and settings, due to personal skill development, was only captured for UK healthcare professionals, based on available questionnaire data. However, it is anticipated that Ugandan healthcare professionals would also experience benefits in this area.

Healthcare providers

Outcomes experienced by healthcare professionals also translated to a broader positive impact for their healthcare providers; healthcare professionals were able to apply their improved knowledge, skills and expertise to achieve tangible improvements

for their healthcare providers in IPC and resource utilisation for the management of obstetric emergencies.

The impact for the UK healthcare provider was found to be greater than that for the Ugandan healthcare provider. This result stems from the value of improved employee retention for the UK healthcare provider, due to volunteer satisfaction amongst the UK healthcare professionals who went to Uganda. There was a lack of data to evaluate this outcome in the Ugandan setting, and therefore it was excluded from the analysis.

Wider global community

The analysis showed that the wider global community also benefits from the partnership through improved access to information on African obstetrics and best practice. The wider global community particularly benefits from open access to published research. The value of the benefit for this stakeholder group is expected to grow as more people access and build on the research.

Mothers and newborns

Mothers and newborns are ultimately the key intended beneficiaries of the partnership, expected to experience better health outcomes relating to improved AMS and management of obstetric emergencies. However, it was not possible to include these stakeholders in the analysis due to data limitations; it is therefore expected that the value relating to improved clinical outcomes for maternal and neonatal health is conservative.

Key Takeaways

- The analysis indicates an effective and efficient utilisation of resources by CGHP to achieve transformative impact for beneficiaries in the UK, Uganda and the wider global community. Central to this success was the ability to capitalise on the expertise delivered by a diverse range of healthcare professionals.
- Strengths of the analysis include the comprehensive capturing of impact for different stakeholder groups and the use of adjustment to ensure that the results reflected the real-world impact of the partnership as closely as possible.
- Exclusion of certain outcomes and beneficiaries from the analysis means that these results are likely to be an underestimate, and the impact of the partnership is anticipated to extend beyond that captured in this report.

Acknowledgements

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