

**The Right to Health:
Breaking down barriers
to eye health in South
Asia – Costing study
March 2024**

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Executive summary

The right to health is an important concept included in the Article 25 of the Universal declaration of human rights describes the right to health as followed: (Assembly, 1948). If there is a debate on the definition of health, what it is clear is that everyone has the right to health and that universal health coverage has not been achieved yet. More specifically, the Lancet Global Health Commission on Global Eye Health mentions the remaining important inequalities to eye health access and the need to tackle it. However, to ensure universal access to eye health services, knowing and understanding the cost of inclusive health for the planning and budgeting of interventions is crucial.

A costing component has been therefore added to the programme “Right to health”, implemented by Sightsavers and its partners since 2018 and aiming at improving access to eye health services to the most vulnerable and marginalised groups. The costing study estimates the cost of improving access to eye health services for persons with disabilities and the cost of raising awareness of inclusive health in Bangladesh and Pakistan. Activity based accounting has been performed to understand how actual expenditures were distributed and to estimate service delivery unit of costs and cost drivers.

A service provider perspective was adopted for the costing study. All financial expenditures that were incurred from July 2018 until December 2021 in Bangladesh and Pakistan by Sightsavers or its partners and related to the “The Right to Health: Breaking down barriers to eye health in South Asia” were included.

A top-down micro costing methodology was used to identify the cost of the programme - direct cost and indirect costs were collected and attributed to each programme activity, then divided it by the number of activity beneficiaries. When the financial transaction could not be attributed to a specific activity, the expenditure was shared throughout the programme (e.g. inclusion officer working on specific outreach programme, patient mobilisation or training of staff). Opportunity costs, i.e. in-kind donations or time spent by Ministry or partner staff that were not charged to the programme, were not included. The costing study therefore presents the incremental cost of inclusive eye health - the cost of eye health inclusion activities in an existing health service delivery system.

The programme effectively delivered eye examination to 2,373,473 patients, 85,828 cataract surgeries and trained 2,290 staff for a total cost of £2,759,065 (GBP 2021). On top of an impressive number of beneficiaries covered, the total cost included the development and implementation of inclusive service to improve accessibility for person with disabilities, the audit and renovation of eight facilities, and the patient mobilisation costs that insured eye health services provision to a maximum number of patients that are a usually marginalised. The longer benefits are not even considered, but some of the

partners are already cascading their learnings to other hospitals. Finally, with 2% of programme expenditure, national guidelines in both countries, Bangladesh, and Pakistan, have been developed contributing to long term changes which are inestimable.

Introduction

The right to health is an important concept included in the Article 25 of the Universal declaration of human rights describes the right to health as followed: (Assembly, 1948). If there is a debate on the definition of health, what it is clear is that everyone has the right to health and that universal health coverage has not been achieved yet and that universal health coverage has not been achieved yet.

More specifically, the Lancet Global Health Commission on Global Eye Health mentions the remaining important inequalities to eye health access and the need to tackle it, as by 2050 around 895 persons will suffer from distance vision impairment (Burton et al., 2021). The commission and Marques et al.'s in their systematic review, the economics of vision impairment and its leading causes, call for a systematic cost data collection of eye health delivery on eye health, to guide broader and more effective delivery (Marques et al., 2022). If economic studies on eye health service delivery are insufficient, the observation is even worse when it comes to costing of inclusive health programmes. Indeed, the published literature on the cost of inclusive eye health in low- and middle-income countries is extremely limited. Despite the importance of knowing and understanding the cost of inclusive health for the planning and budgeting of interventions, an evidence gap exists.

A costing component has been therefore added to the programme “Right to health”, implemented by Sightsavers and its partners since 2018 and aiming at improving access to eye health services to the most vulnerable and marginalised groups. The costing study estimates the cost of improving access to eye health services for persons with disabilities and the cost of raising awareness of inclusive health in Bangladesh and Pakistan. Activity based accounting has been performed to understand how actual expenditures were distributed and to estimate service delivery unit of costs and cost drivers.

Methodology

Costing approach

A service provider perspective was adopted for the costing study: the implementing partners in Bangladesh were Dhaka Progressive Lions Eye Hospital (DPLEH) Narsingdi, Quasem Foundation (Mariam Eye Hospital), Kurigram, Community Eye Care & Research Centre (CECRC) Rangpur, Prof. M.A. Matin Memorial BNSB Base Eye Hospital (SBNSB) Sirajganj, Centre for Disability in Development (CDD) in Bangladesh; and Layton Rahmatullah Benevolent Trust (LRBT) in Rawalpindi, Sargodha, Nowshera & Quetta districts, Special Talent Exchange Programme (STEP), Civil Society Human and Institutional Development Programme (CHIP) in Pakistan. All financial expenditures that were incurred from July 2018 until December 2021 in Bangladesh and Pakistan by Sightsavers or its partners and related to the “The Right to Health: Breaking down barriers to eye health in South Asia” were included. A top-down micro costing methodology¹ was used to identify the cost of the programme - direct cost and indirect costs were collected and attributed to each programme activity (e.g. cost of cataract surgery²), then divided it by the number of activity beneficiaries (e.g. number of cataract surgeries conducted) (Hendriks et al., 2014). When the financial transaction could not be attributed to a specific activity, the expenditure was shared throughout the programme (e.g. inclusion officer working on specific outreach programme, patient mobilisation or training of staff). Opportunity costs, i.e. in-kind donations or time spent by Ministry or partner staff that were not charged to the programme, were not included. The costing study therefore presents the incremental cost of inclusive eye health - the cost of eye health inclusion activities in an existing health service delivery system.

Data collection

All financial costs have been centrally collected by the Sightsavers’ country offices in Bangladesh and Pakistan. All expenditure (over 10,000 items) has been consolidated on an excel file, along with transaction dates, partners, and other key information.

¹ Apart from the surgery costs in Pakistan, where we used LRBT’s standard costs (implementing clinic) for proportional category allocation (40% for personnel, 36% for administration and overheads and 24% for medicines and supplies)

² Project support was only for the free and subsidised patients for small incision cataract surgery (SICS) with Intraocular lenses (IOL)

Data analysis

A list of key activities (Table 1) was identified to allocate expenses to five activity categories, including: Programme management and coordination; Uptake; Inclusion, Policy, and Monitoring and Evaluation activities. For cross-country comparison, the total expenses of programme activities were also compared.

1. Programme management and coordination

This category encompasses all expenditure related to the programme management at country level including programme coordination, management, and inception/launch activities.

2. Uptake

This includes all expenditure related to patient mobilisation, cataract surgeries, and eye examinations undertaken as part of the “Right to Health” programme.

3. Inclusion

All expenditures related to inclusion work were included. It corresponds to several sub-activities such as: situation analysis, development and implementation of the information, education and communication (IEC) strategy, training in inclusive eye health including gender & disability, training on sign languages, accessibility audit, targeted outreach camps, accessibility work, community sensitisation, and all related expenditures shared across these activities.

4. Policy

This includes costs related to workshops, sensitisation, dissemination meetings and the development of policy and advocacy guidelines.

5. Monitoring and Evaluation

This includes expenditures related to the monitoring of the programme, the disability data disaggregation of programme participants, audits, and the Quality Standard Assurance Tool (QSAT).

Table 1: Table of activities

Programme management and coordination	<ul style="list-style-type: none"> • Salaries, per diem and other personnel expenditures related to operational, management and coordination activities • Supplies and other equipment attributable • Office expenses (e.g. rent, utility bills etc.)
Uptake of eye health services	<ul style="list-style-type: none"> • Financial cost of eye care services carried out as part of the programme (incl. personnel, medical supplies and equipment): <ul style="list-style-type: none"> ○ Eye examination at hospital or general outreach camps ○ Cataract surgeries ○ Patient mobilisation (e.g. Travel allowance or food for patients) ○ All other expenditures shared throughout this activity
Inclusion eye care services development and distribution	<ul style="list-style-type: none"> • Expenditure related to training activities (of clinical and non-clinical staff on gender and disability inclusive eye care), sign languages • Development and implementation of IEC strategies • Accessibility audit and work (including renovations) • Community sensitisation (i.e. support plan development from key stakeholders, strategies to reach out to marginalised populations etc.) • Targeted outreach camps targeting persons with disabilities and other marginalised groups • All other expenditures shared throughout all inclusion activities (e.g. disability officers)
Policy	<ul style="list-style-type: none"> • Financial cost of developing guidelines on disability inclusive eye health • All expenditures related to workshop, advocacy, and dissemination meetings
Monitoring and evaluation (M&E)	<p>Transportation, personnel, and all other expenditures covering:</p> <ul style="list-style-type: none"> • Monitoring • Review meetings • Disability data disaggregation • QSAT • Evaluation • Audits and all other shared activities

Each line of expenditure has been allocated to a cost category and sub-category (Table 2).

Table 2: Table of cost categories

Personnel	<ul style="list-style-type: none"> • Per diems • Accommodations • Meals and drinks • Fee • Salary • Others
Equipment and supplies	<ul style="list-style-type: none"> • Medical equipment • Phones • Ancillaries • Stationery, printing, bill board, leaflet etc. • Medical supplies (drugs, consumables, etc.) • Office equipment • Food • COVID related supplies • Others supplies
Transportation	<ul style="list-style-type: none"> • Fuel • Vehicle hire • Air fares • Vehicle maintenance • Driver per diems • Mileage • Other • Package • Travel allowance
Other	<ul style="list-style-type: none"> • Communication • Bank fees • Shipping fees • Utility expenses • Media • Patient food
Venue rental meeting expenses and catering	<ul style="list-style-type: none"> • Catering, rental equipment and venue hire • Rental equipment • Venue hire • Conference package • Others
Building	<ul style="list-style-type: none"> • Construction • Renovation • Rent • Utilities

For the unit costs, some activities were combined to capture the cost per inclusive eye examination and treatment, and the cost per cataract surgery (Figure 1).

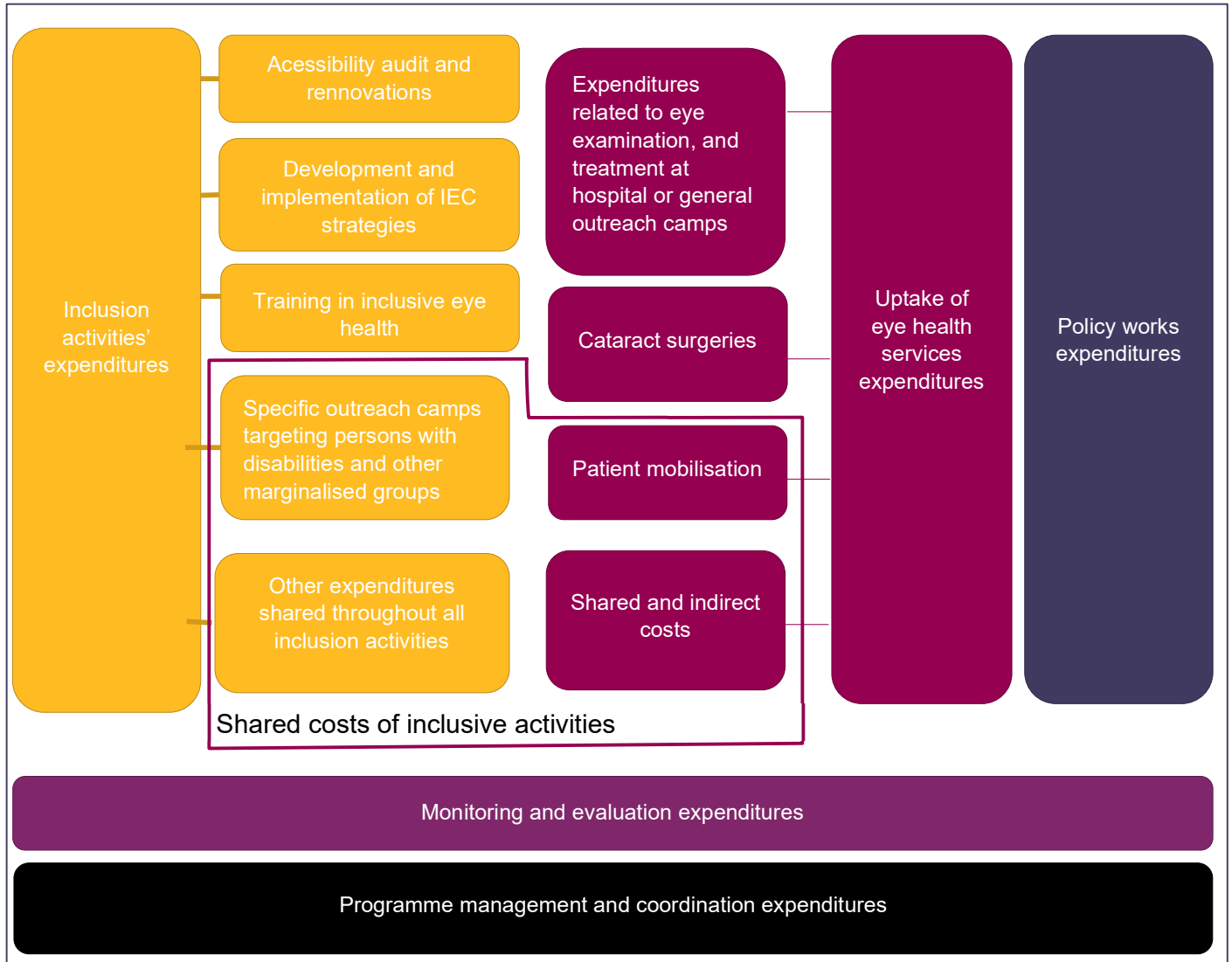


Figure 1: Expenditures included in the cost estimates

The shared costs of inclusive activities were combined and used to estimate the unit cost of inclusive eye health by adding it to the cost of eye health interventions (e.g. cataract surgeries, and eye examinations and treatments³).

³ Cost of examination, eye refraction and other treatments (other surgeries etc.) could not be disentangled and have therefore been left aggregated

Currency

For cross-country analysis, all costs were converted from local currencies (Pakistani Rupee (PKR) or Bangladeshi Taka (BDT)) into current British Pounds (GBP) using quarterly exchange rates (Financial Times, 2021). Costs were then adjusted to GBP 2021 using the consumer price inflation annual rate (Office for National Statistics, 2022).

Results

Total spent by year

Based on transaction lists provided by implementing partners and centralized by Sightsavers, the financial cost of implementing the “The Right to Health: Breaking down barriers to eye health in South Asia” programme in Bangladesh and Pakistan amounted to GBP 2,759,065 (Table 3).

Table 3: Annual and total programme expenditure in GBP 2021

Activities / Sub-activities	2018	2019	2020	2021	Total
Bangladesh	125,755	469,361	452,583	278,917	1,326,616
Global*	39,743	745	91,224	55,547	187,259
Pakistan	21,164	436,581	370,058	417,386	1,245,189
Total	186,663	906,687	913,864	751,850	2,759,065

*Costs that could not be specifically allocated to one country

Cost structure and cost drivers

The uptake of eye services, including cataract surgery, eye examination (at clinic and general outreach camps), refraction and other eye health care interventions had the highest share of spend, amounting to 48% of in-country expenditure (Table 4). This is followed by programme management and coordination activities, with 32% of all financial cost. Inclusive eye care services development and distribution activities represent 12%, M&E 6% and policy activities 2% of total expenditure.

Personnel is the highest share of expenditure (49%) in terms of cost categories, followed by equipment and supplies (26%), other expenses (14%), transportation (5%), building expenditure (4%) and finally venue and meeting expenses (2%).

Cross-analysing activities and inputs helped identify the main cost driving areas (highlighted in orange and red) such as equipment and supplies of eye health services at health facilities and general outreach camps that represented 21% of total expenses, of which 32% were allocated to the purchase of medical supplies, 32% to salaries and 10% to medical equipment. Personnel expenditure of management and coordination activities amounted to 22% of total expenditure.

Cost structure tables by country are available in appendix (Tables 8 and 9).

Table 4: Heat table of total incremental cost, by cost category and activity, in GBP 2021

Categories	Personnel (%)	Equipment and supplies (%)	Other (%)	Transportation (%)	Building (%)	Venue and meeting expenses (%)	Total (%)
Activities							
Uptake of eye health services	471,874(17%)	612,763(22%)	136,353(5%)	85,521(3%)	4,802(0%)	5,354(0%)	1,316,666(48%)
Programme management and coordination	568,932(21%)	42,239(2%)	211,074(8%)	3,442(0%)	35,752(1%)	10,752(0%)	872,192(32%)
Inclusive eye care services development and distribution	155,187(6%)	54,452(2%)	36,257(1%)	11,274(0%)	62,823(2%)	12,072(0%)	332,066(12%)
Monitoring and evaluation	132,202(5%)	3,059(0%)	4,003(0%)	28,022(1%)	232(0%)	9,005(0%)	176,523(6%)
Policy	29,286(1%)	8,580(0%)	3,903(0%)	2,268(0%)	26(0%)	17,554(1%)	61,618(2%)
Total	1,357,481(49%)	721,093(26%)	391,591(14%)	130,528(5%)	103,635(4%)	54,737(2%)	2,759,065(100%)

Legend:



Breakdown by activities and sub-activities

Table 5 shows expenditure distribution across activities and sub-activities which illustrates the costs of each of the planned outputs and sub-outputs (see programme logical framework). The last column provides an overall cost proportion by activity and sub-activity.

Table 5: Expenditure by activities and sub-activities (in GBP 2021)

Activities / Sub-activities	Bangladesh	Pakistan	Global	% of Total % of sub-total
Uptake	717,751(54%)	599,858(48%)	-	1,317,609(48%)
Surgeries	482,585(67%)	482,557(80%)	-	965,142(73%)
Patient mobilisation	168,435(23%)	29,758(5%)	-	198,193(15%)
Eye examination at hospital and general outreach camps	61,401(9%)	39,388(7%)	-	100,789(8%)
Shared	5,330(1%)	48,156(8%)	-	53,486(4%)
Management	346,366(26%)	396,206(32%)	129,620(69%)	872,192(32%)
Coordination and implementation	305,149(88%)	306,697(77%)	125,493(97%)	737,340(85%)
Project launch/ Inception workshop	8,445(2%)	39,229(10%)	-	47,674(5%)
Grant management	7,128(2%)	33,214(8%)	4,127(3%)	44,469(5%)
Overheads	12,609(4%)	11,585(3%)	-	24,194(3%)
COVID risk management	13,034(4%)	5,481(1%)	-	18,515(2%)
Inclusion	159,188(12%)	171,935(14%)	-	331,123(12%)
Development and implementation of Information, Education and Communication strategy	31,855(20%)	77,519(45%)	-	109,374(33%)
Accessibility audit and work	40,105(25%)	36,981(22%)	-	77,085(23%)
Training in inclusive eye health	21,297(13%)	38,940(23%)	-	60,237(18%)
Specific outreach camp	41,735(26%)	18,348(11%)	-	60,083(18%)
Shared	24,196(15%)	148(0%)	-	24,344(7%)
M&E	76,511(6%)	42,373(3%)	57,639(31%)	176,523(6%)
Monitoring	20,993(27%)	25,163(59%)	25,606(44%)	71,762(41%)
Evaluation	166(0%)	802(2%)	30,009(52%)	30,977(18%)
Review meetings	20,871(27%)	4,607(11%)	297(1%)	25,775(15%)

Data Disaggregated by disabilities	16,590(22%)	3,254(8%)	-	19,844(11%)
Project audit	8,586(11%)	5,915(14%)	-	14,501(8%)
QSAT	9,281(12%)	2,632(6%)	-	11,913(7%)
Shared	24(0%)	-	1,728(3%)	1,751(1%)
Policy	26,800(2%)	34,818(3%)	-	61,618(2%)
Workshop, sensitisation, dissemination meetings, advocacy	22,265(83%)	34,818(100%)	-	57,082(93%)
Develop guidelines	4,536(17%)	-	-	4,536(7%)
Grand Total	1,326,616(100%)	1,245,189(100%)	187,259(100%)	2,759,065(100%)

As seen in Table 5, uptake of eye health services has required the highest share of expenditure (48%), of which the uptake of cataract surgeries accounted for 73% of uptake costs and 15% of patient mobilisation expenses. Patient mobilisation expenses consists mainly of travel allowance (30%) and food for patients (19%).

Programme management and coordination comprise various activities necessary to the start and running of the programme. They are shared throughout all activities and could not be isolated to a specific output, with some rare exceptions (e.g. reported operational costs from implementing partners).

The Inclusion category, amounting to 12% of all costs, covers all costs specific to activities to reach people with disabilities or other marginalised groups. The development and implementation of an information, education and communication strategy accounted for the highest share of the inclusion category spend with 33% of the activity cost. Accessibility audit and work followed with 23% of the expenditure, then training of staff in inclusive eye health (18%), specific outreach camp (18%), and finally other shared expenditures (7%) that could not be allocated to a specific output but are key to the delivery of programme outcomes (e.g. equipment). Monitoring and evaluation accounted for 6% of costs, of which monitoring, evaluation and review meetings accounted for 41%, 18% and 15% of activity expenditure respectively.

Finally, policy activities represented only 2% of total programme expenditure.

It is noticeable that share of expenditures for activities are very similar between Bangladesh and Pakistan, with the larger difference between Uptake and Management cost (6% variation). Which highlight the relative standardisation of activity implementation rather than discrepant spendings.

Unit costs

Table 6 shows unit costs of the key outputs. The average unit cost of examining one person reached, including inclusive services, was £0.34 in Bangladesh and £0.09 in Pakistan, excluding management and coordination costs, and £0.75 and £0.42 including management and coordination expenses. The notable differences between Bangladesh and Pakistan are, in part, due to the fact that general outreach camps had to be implemented in Bangladesh, thus increasing cost of transportation, per diems, organizing activities etc (e.g. 51% of examination's sub-activity costs in Bangladesh, against no expenditure in Pakistan). Similarly, for the cost per person refracted where it reaches £1.03 in Bangladesh and £0.24 in Pakistan.

The unit cost of cataract surgery, counting inclusive services, was relatively similar in both countries, amounting to £11.53 in Bangladesh, and £13.1 in Pakistan (respectively £19.05 and £26.02 including management and coordination costs).

The unit cost per staff trained in Bangladesh was £46 per person, on average, whereas it remained higher in Pakistan, £632 – this is probably due to the larger number of persons trained in Bangladesh (2,138) than in Pakistan (152), and hence generating economies of scale.

Four eye health facilities in Bangladesh and four in Pakistan were audited for their accessibility and then accordingly renovated or adapted (e.g. construction of ramps, lifts etc.), at an average cost of £10,038 in Bangladesh and £9,245 in Pakistan.

In table 6, unit costs are presented with and without management and coordination costs. It is important to note that those necessary costs are not attributable to a specific outcome as they are shared throughout the entire programme implementation. The same amount was therefore simply added to each activity (not shared proportionally and therefore should not be cumulated) and divided by the output number.

Table 6: Cost per output unit (in GBP 2020)

Activities	Bangladesh			Pakistan				
	Outputs	Activity cost including shared inclusion work (incl. management costs)	Activity cost including shared inclusion work (excl. admin)	Unit cost**	Outputs	Activity cost including shared inclusion work (excl. admin)	Activity cost including shared inclusion work (incl. management costs)	Unit cost**
Uptake of inclusive eye health services (including mobilisation, inclusion officers, outreach activities, etc.)								
Inclusive services (exp. Specific outreach camp and shared costs)	877,919	412,297	65,930	0.08(0.47)	1,495,554	1,495,554	414,702	0.01(0.28)
Eye examination	877,919	658,881	301,096	0.34(0.75)	1,495,554	1,495,554	630,114	0.09(0.42)
Cataract surgery	47,569	906,300	548,515	11.53(19.05)	38,259	38,259	995,369	13.1(26.02)
Eye refraction	291,998	658,881	301,096	1.03(2.26)	555,120	555,120	630,114	0.24(1.14)
Inclusion activities								
Number of staff (+clinical and non-clinical) trained on inclusive primary eye care, disability inclusion and gender mainstreaming	2,138	444,152	97,786	46(208)	152	96,015	492,220	632(3,238)
Number of facilities that undergo accessibility audit and work	4	386,471	40,105	10,026(96,618)	4	36,981	433,187	9,245(108,297)

***Using number of examinations as denominator to avoid double counting as a person treated has been examined before**

**** In parenthesis, cost including aggregated management costs**

Looking at the programme’s total cost and beneficiaries, the unit cost per beneficiary reaches £1.6 in Bangladesh and £0.9 in Pakistan (Table 7) -one beneficiary being either a person examined, at any level or a person who received an inclusion training. The total cost includes every expenditure collected and attributable to the “Right to Health” programme since its start. Overall, the cost per beneficiary across the programme was £1.2.

Table 7: Unit cost per beneficiary

Costs, output	Total Bangladesh	Total Pakistan	Programme total
Total cost (incl. Global cost*)	1,420,246	1,338,819	2,759,065
Total number of beneficiaries	879,721	1,495,710	2,375,431
Unit cost per beneficiary	1.6	0.9	1.2

*Global cost was equally distributed between both countries

Discussion

The report presents results of the costing analysis of the “The Right to Health: Breaking down barriers to eye health in South Asia” programme where all expenditure was consolidated to provide a snapshot of the cost distribution and identify cost drivers. The total incremental cost of the programme amounted to £2,759,065 over the course of four years (from 2018 to 2021).

The programme aimed at providing three main outputs: the uptake of eye services, particularly amongst women and men with disabilities; work towards inclusive eye health services (including training of human resources); and policy activities ensuring inclusive eye health in both countries.

On average, the uptake of eye health services represented the largest share of expenditures (48%) which was expected given the important number of eye examination (2,373,473) and cataract surgeries undertaken (85,828) (Table 5). Cataract surgeries represented 74% of total uptake activity (Table 5), followed by patient mobilisation (15%). Patient mobilisation was an essential part of the programme for improving and ensuring access to eye health services for marginalised groups by providing travel allowance and food to patients. However, activities to improve facilities’ inclusivity in the long term, through training, development of IEC strategies and renovation of facilities, but also policy work for mainstreaming inclusive eye health services, represented 12% of total programme expenditures (Table 5). Given the scarcity of cost data on inclusive health delivery, we cannot compare our results with other studies in low- and middle-income countries. There is, however, a consensus in the literature saying that, in various domains, the costs of inclusion are outweighed by benefits of inclusion (Banks & Polack, 2014; United Nations Children’s Fund, 2021; World Health Organization & World Bank, 2011).

Evidence also suggests that mainstreaming inclusive services is the most cost-effective and efficient way to achieve equality of access to services for marginalised persons through economies of scale (Angeli & Jaiswal, 2016; Coe & Wapling, 2010). This supports the integration of activities within the routine delivery of services. Moreover, as seen in this programme, most of the activity costs for improving access to health delivery are not expected to be recurrent - facility changes would only occur once in the short term; accessibility renovations (e.g. building ramps, lifts etc.) are long term infrastructure modifications that are likely to occur once; and training of staff would happen at the beginning and then would only require refresher training at a later date (at a lower cost to the initial training).

The second largest item of expenditure related to the programme management and coordination of the various activities (32%) and would also expect to decrease once integrated into the routinely health system delivery. Implementation and coordination are essential for a multi-country, innovative programme such as this, and it represented 85% of the activity’s cost (Table

5). Around 5% were allocated to project launch/inception and are expected to decrease if these activities were included in the health system.

The costing study did not consider the projects long term outcomes. However, the study did consider beneficiaries and outputs – the project managed to directly reach a total of 2,375,431 beneficiaries, either with eye examination or inclusive training, at an incremental unit cost of £1.2 (Table 7). The survey conducted as part of the inclusive data report⁴ showed that in Bangladesh around 27% of patients selected at screening (n=14,434), stated having a non-visual disability (52% including vision limitations (Sightsavers, 2022)⁵. In Pakistan it was an average of 30% of patients selected for the survey (n=8,892) and receiving an eye screening who were identified with a non-visual disability (48% including vision difficulties). As the incremental unit cost of inclusive services in Bangladesh (£0.08) and Pakistan (£0.01) remained low, partners could still deliver eye health services at similar rate than without inclusive services (Table 6). Indeed, the unit cost of cataract surgery, relatively well documented, was estimated, for example, on average at £21 (GBP 2021)⁶ in Pakistan, according to IAPB, whereas our programmatic incremental unit cost, including aggregated management costs, reached £19.2 in Bangladesh and £26 in Pakistan (Muhammed Bilal, 2018). To add a comparative point, the market price of small incision cataract surgery using mono-focal polymethylmethacrylate intraocular lens manufactured in India, ranged from £43 to £60⁷ (Islam, Engels, Hossain, Sarker, & Rabbani, 2019). It is important to note that the costing methodologies used may differ.

Partner hospitals in Bangladesh and Pakistan had also implemented a cross subsidy model financing eye care for poor and marginalised patient which is not reflected in the expenditure. Indeed, its financing relayed on the full payment of solvable patients, using shares of the profit to cover patients that received services free of charge. Combined with the travel allowance and food expenses for patient, it allowed the programme to minimise the usually very hindering financial barriers to healthcare.

Finally, with 2% of total expenditures, national guidelines on disability inclusive eye health have been developed, along with the establishment of governance structures, such as the inclusive eye health task force in Pakistan or the district level vision committees in Bangladesh (Table 4). The social and economic

⁴ Learning product, part of this programme's deliverables: *Inclusive Data Learning Report The Experience of the Right to Health Programme in Bangladesh and Pakistan 2018-2021*

⁵ Using the Washington Group set of questions, which is a questionnaire designed to identify respondents with functional disability

⁶ Converted from USD 2018 using annual exchange rate and adjusted for inflation (Financial Times, 2021; Office for National Statistics, 2022)

⁷ Converted from USD 2015 using annual exchange rate and adjusted for inflation (Financial Times, 2021; Office for National Statistics, 2022)

benefit ensuing from the health systems changes that it brought, will bring, or participates to bring were not captured but it is easy to imagine that the benefit of inclusion of people with disabilities at the policy level in Bangladesh and Pakistan would largely outweigh the cost of investment.

In terms of limitations, the programme sought to improve eye health delivery for marginalised groups, by facilitating the accessibility to health services, increasing the competences of health staff, sharing information, and promoting policies and strategies that support inclusive eye health services. However, access to health services for persons with disabilities is also impeded by the limited access and use of assistive technologies, which were not included in the programme – addressing these could increase the global cost of an inclusive programme (Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), 2019). Also, our study only looked at financial expenditure collected via implementing partners' accounting system, it does not cover the full economic cost of the programme, meaning that in-kind donation (e.g. vehicle use) or opportunity costs (e.g. time of volunteer staff) were not included in the cost estimate.

Conclusion

This costing study considered the incremental cost of including a component to improve access to health services for the most marginalised population groups in Bangladesh and Pakistan. It is one of the few studies that displays how expenditures are distributed and how much it costs to implement inclusive eye health services to an existing eye health programme. Although we would expect costs to decrease if the scale and the length of the programme would increase.

Nevertheless, the programme effectively delivered eye examination to 2,373,473 patients, 85,828 cataract surgeries and trained 2,290 staff for a total cost of £2,759,065 (GBP 2021). On top of an impressive number of beneficiaries covered, the total cost included the development and implementation of inclusive service to improve accessibility for person with disabilities, the audit and renovation of eight facilities, and the patient mobilisation costs that insured eye health services provision to a maximum number of patients that are a usually marginalised. The longer benefits are not even considered, as some of the partners are already cascading their learnings to other hospitals (e.g. Quasem Foundation and Dhaka Progressive Lions Eye Hospitals). Finally, with 2% of programme expenditure, national guidelines in both countries, Bangladesh, and Pakistan, have been developed contributing to long term changes which are inestimable.

Appendix

Table 8: Heat table of total incremental cost in Bangladesh, by cost category and activity, in GBP 2021*

Categories	Personnel (%)	Equipment and supplies (%)	Transportation (%)	Other (%)	Venue and meeting expenses (%)	Building (%)	Total (%)
Activities							
Uptake of eye health services	215,301(16%)	358,039(27%)	85,718(6%)	53,340(4%)	5,354(0%)	-	717,751(54%)
Programme management and coordination	283,022(21%)	23,511(2%)	357(0%)	8,067(1%)	7,779(1%)	23,631(2%)	346,366(26%)
Inclusive eye care services development and distribution	67,375(5%)	33,779(3%)	3,049(0%)	12,483(1%)	8,890(1%)	33,611(3%)	159,188(12%)
Monitoring and evaluation	49,367(4%)	2,988(0%)	11,677(1%)	3,501(0%)	8,765(1%)	213(0%)	76,511(6%)
Policy	8,867(1%)	793(0%)	1,004(0%)	2,914(0%)	13,196(1%)	26(0%)	26,800(2%)
Total	623,932(47%)	419,109(32%)	101,805(8%)	80,305(6%)	43,984(3%)	57,482(4%)	1,326,616(100%)

*Without global costs

Table 9: Heat table of total incremental cost in Bangladesh, by cost category and activity, in GBP 2021*

Categories	Personnel (%)	Equipment and supplies (%)	Transportation (%)	Other (%)	Building (%)	Venue and meeting expenses (%)	Total (%)
Activities							
Uptake of eye health services	256,572(21%)	254,724(20%)	83,013(7%)	747(0%)	4,802(0%)	-	599,858(48%)
Programme management and coordination	156,290(13%)	18,729(2%)	203,007(16%)	3,085(0%)	12,121(1%)	2,974(0%)	396,206(32%)
Inclusive eye care services development and distribution	87,812(7%)	20,673(2%)	23,774(2%)	7,282(1%)	29,212(2%)	3,182(0%)	171,935(14%)
Monitoring and evaluation	28,746(2%)	71(0%)	205(0%)	13,092(1%)	19(0%)	240(0%)	42,373(3%)
Policy	20,419(2%)	7,787(1%)	989(0%)	1,264(0%)	-	4,358(0%)	34,818(3%)
Total	549,840(44%)	301,984(24%)	310,989(25%)	25,469(2%)	46,153(4%)	10,753(1%)	1,245,189(100%)

*Without global costs

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