



File Form 672

Equipment to establish a Neonatal Intensive Care Unit (NICU) at IMPACT Bangladesh's community hospital in Chuadanga District Interim report for the Eagle Foundation – February 2024

Donor name: Fondation Eagle

Fondation Eagle reference: FF 672

Name of Charity: IMPACT UK

Introduction: We are so grateful to Fondation Eagle for supporting IMPACT Bangladesh (IFB) to establish a Neonatal Intensive Care Unit at their new hospital in Chuadanga. So far, your funding has enabled them to take the first steps towards this by purchasing equipment such as baby warmers, an incubator, neonatal beds, foetal monitors and breathing apparatus which will provide specialised and potentially life-saving care for premature and low-birth weight babies. There are no other such facilities in Chuadanga and currently babies requiring care are transferred to Dhaka or other large cities. This inevitably has implications for survival rates and is out of reach for the poorest people.



Most of the equipment has arrived at IMPACT Bangladesh's new hospital in Chuadanga

Date of grant accepted: 27/06/23 (funds received by IMPACT UK 05/07/23)

Amount: GBP 29,211

Conversion rate, date & amount in local currency: BDT 3,893,727 Exchange rate 1GBP = 133.2966 BDT (08/09/2023)

Expenditure: GBP 26,978

Amount remaining: At this six-month point, there is an underspend of GBP 2,233. This will pay for the second incubator and cover the remaining project management fees.

Name and exact location of the project: IMPACT hospital and diagnostic centre, Kedargonj, Chuadanga District

Period of Project: 05/07/23– 04/07/2024

Project beneficiaries: 400 babies are born at the hospital per year and when the NICU Unit is up and running, they will benefit from this potentially life-saving equipment in the event that they are sick or premature.

Details of the project:

There are no facilities to support the most premature or low-birthweight (LBW) babies in Chuadanga District and babies needing critical care are typically transported to Dhaka or another large city. This is not only an expensive option for the poorest families but also impacts on the life chances of the baby at such a vulnerable time. Establishing a Neonatal Intensive Care Unit (NICU) to benefit the most vulnerable and sick babies at their new hospital in Chuadanga was therefore a top priority for IMPACT Bangladesh (IFB).

Some of the primary causes of low birth weight (defined by the World Health Organisation as a baby weighing less than 2,500 grams (5.5 pounds)) are malnutrition; inadequate healthcare; low socioeconomic conditions; physical labour during pregnancy; lack of birth spacing; and early marriage. These are all factors which touch the lives of the poorest women in Chuadanga and Meherpur districts and IFB's work to improve maternal health and child survival rates in the neediest areas of these districts has been ongoing since 2002. Action includes:

- Establishing **IMPACT Mothers' Clubs** to promote key health messages, such as taking good care in pregnancy; the importance of sound nutrition and ante/postnatal checkups; and reproductive issues, such as birth spacing. There are now 900 village Mothers' Clubs meeting monthly and benefiting approximately 22,500 women and their families
- **Training Traditional Birth Attendants** - regular monitoring and trained assistance during pregnancy and delivery is the best safeguard, yet the poorest women rely on untrained Traditional Birth Attendants (TBAs) to deliver their babies, so IMPACT trains and equips them to work safely. We trained 600 TBAs in 2023/23
- **Widening Access to healthcare and combatting malnutrition** – last year IFBs maternity clinics provided 4,289 women with ante and postnatal care, including micronutrient supplements (folic acid et) and 750 households were provided with training, tools and equipment to grown fruit and vegetables to supplement meagre diets



One of the 900 IMPACT Mothers' Clubs in session

This action aims to address many of the preventable causes of prematurity and LBW but in a country where the latest data from 2017-18 [Bangladesh Demographic and Health Survey (BDHS)] indicates the prevalence of low birth weight to be 22% (compared to 6.9% of live births in the UK [Office of National Statistics]), facilities must also been in place to treat those babies in urgent need of critical care at birth. Thus in 2016, when IFB started work on a new hospital to upgrade and expand their existing premises, establishing a Neonatal Unit was firmly on the agenda.

We are so grateful to Fondation Eagle for enabling us to take the first steps towards this aim by purchasing the vital equipment required to establish formal services. With your grant, IFB has purchased:

- ✓ **A new incubator, two special NICU beds and two new baby warming machines:** These will allow nurses and midwives to monitor a baby's vital signs, regulate temperature and enable easy access for medical interventions. The original incubator that IFB had intended to buy was not available for purchase by the time the funds arrived, so a different model was procured. Only one was purchased in order that the quality of the unknown model could be fully assessed, and in case the desired original did eventually become available. A decision on the second one will be made very soon and the order placed.

- ✓ **A mechanical ventilator:** To help underdeveloped babies breathe by providing oxygen to the lungs, removing carbon dioxide and providing pressure to keep the air sacs in the lungs from collapsing. There have been some issues procuring this item. The work order was produced on 16th August 2023, shortly after receiving your funding, however the machine had been mistakenly proposed by the supplier, as it only works on a central gas system (not cylinder gas, as is the case at IFB's hospital). Another supplier was sought and a superior model, far better suited to IFB's needs and context, is currently on order.
- ✓ **Four nebulisers** to aid infant breathing and deliver aerosolised drugs
- ✓ **Two patient monitors and a foetal doppler** for monitoring the heart rate and vital signs of neonates and an intubation set for the airway management of newborn babies.

All the equipment, apart from the mechanical ventilator and second incubator, is currently on site and in use and we look forward to reporting in more detail on interventions that have taken place in our final report in July.

Photos showing the equipment arriving on site:



Photos showing the incubator and warming machine in use:



Staff testimonial



'Our patients here in Chuadanga are not from wealthy families. Most of them are not used to accessing even the most basic of healthcare services. And the pregnant women in this area lack adequate knowledge about pregnancy care, proper rest, dietary intake and all the other things that can affect the health of mother and baby. Also, most of these women are married off at an early age, another factor leading to birth of premature babies. In summary, there are so many of these babies that will need NICU services for their intensive care. Earlier, we used to refer these patients to Khulna or Dhaka. But the distance and also arrangement of money usually delayed the process that led to neonatal morbidity or mortality. Now, we can address these issues at our own hospital with our newly established NICU. This has been extremely beneficial for the patients in the district and we thank the donor with all our hearts'

Dr Shaiful Kabir, Hospital Director

The individual IMPACT:

Momtaz (22) was one of the first to benefit from the new equipment. Momtaz experienced high blood pressure and gestational diabetes throughout her pregnancy period.

At 32 weeks gestation, she experienced labour-like pain for two days. She was accompanied to the hospital by her husband and mother-in-law. Upon examination by the doctor, it was revealed that Momtaz needed an immediate caesarean section delivery. Momtaz gave birth to a low-birth, pre-term female infant weighing only 1,200 gm. Our doctors strongly advised to the parents that their baby needed to be kept under intensive care. Thankfully, 9 days later, the baby had gained a good amount of weight and was able to go home safely.

Momtaz said: "I am so happy that I was brought to this hospital by my husband. The treatments and services I received here are beyond words. I learned about kangaroo care and my baby was under proper medical observation. I am glad that I can return home with a healthy baby. If we had to travel to Dhaka or Khulna for getting this treatment, we are not sure if we could return home with a healthy baby, or so soon. I thank the hospital for bringing to us this kind of advanced facility." **IMPACT Bangladesh**



Thank you

This vital equipment will enable IMPACT's medical staff to run a safe and effective care service for their most vulnerable and tiniest of patients – newborns requiring intensive care. This equipment will make a significant impact on their chances of survival, and we are so grateful for your grant which has made it possible. We look forward to sending our final report later in the year, when the equipment will have been delivered and will be in full use by the medical team caring for vulnerable newborn babies.

Expenditure statement

Budget	Total Cost GBP	Total cost BDT	Expenditure GBP (including VAT and AIT @ 10.5%)	Expenditure BDT
NICU beds x2	7,272	969,333	713	95,040
Baby warmer machines x2	3,636	484,666	3,813	508,260
Incubators x2 (<i>Note: 1 purchased, 1 remaining to purchase</i>)	8,742	1,165,279	1,948	259,662
Nebuliser machines x4	280	37,323	73	9,731
Mechanical ventilator machine (<i>Note: awaiting delivery</i>)	7,290	971,732	16,129	2,149,941
Smaller items to support and monitor babies breathing (intubation set, body warmer, pulse BP monitor, foetal dopplers)	600	79,978	3,606	480,668
Sub-total	27,820	3,708,311	26,282	3,503,301
Project Management 5%	1,391	185,416	696	92,774
Grand Total	29,211	3,893,727	26,978	3,596,076

Budget note: It will be noted that there have been some adjustments to the original budget to make it work within the grant available. This is largely due to the lack of availability of some of the items. For example, the original NICU beds sought were no longer on sale by point of purchase but thankfully a cheaper, Chinese semi-automatic bed of good quality became available. There was also a cost saving on the incubator but only one was purchased (so that the quality of the new model could be fully assessed). And the requirement to purchase a more sophisticated mechanical ventilator machine is described in more detail above.

There is a remaining balance of GBP 2,233. This will be used to purchase the second incubator and for the remaining six-month's project management fee. We look forward to sending you our final report in July.