

NEONATAL CARE UNIT

Providing care for the most vulnerable



HOPITAL CONVENTION BAPTISTE D'HAITI AND HOPE HEALTH ACTION

EXPANSION PROPOSAL

NEW NEONATAL CARE UNIT

Providing care for the most vulnerable.

Haiti struggles with the highest rates of infant mortality in the western hemisphere. In 2012, in partnership with Hopital Convention Baptiste D'Haiti (HCBH), Hope Health Action opened one of the leading neonatal care units in northern Haiti that cares for over 600 babies a year. The unit has become a victim of its own success, having only been designed for 8 babies, it often cares for over 20, significantly impacting patient care.

This proposal sets out a comprehensive plan for a new neonatal care unit, developed by an experienced team of Haitian and international experts. This unit will dramatically improve care for newborns in northern Haiti and will help save the lives of thousands of babies in the years to come.

OVERVIEW

12 years after the devastating earthquake that hit Haiti, the country's economic and social development continues to be hindered by political instability, governance issues, and fragility. With a Human Development Index ranking of 170 out of 189 countries in 2020, Haiti remains the poorest country in the Latin America and Caribbean region and among the poorest countries in the world. 60% of its population live below the poverty line.

A World Bank report stated that between 2004 and 2017 the Haitian Government's budget allocation for health declined significantly from 16.6% (2004) of the national budget to 4.4% (2017), about \$13US per capita. Against this challenging backdrop, Haiti's health system has been reliant on the support of international NGOs like Hope Health Action and private not-for-profit facilities like our partner hospital HCBH, to help fill critical gaps in health provision. This has been even more important in 2021 following a devastating year of political instability, increased gang violence, a major earthquake and national fuel shortages.

HHA co-founded HCBH in 2007, a 100+ bed Haitian led hospital that is now one of the leading health facilities in northern Haiti, supporting 300+ Haitian staff and typically serving over 30,000 patients a year. Central to the work of HCBH is its maternal and infant health departments that include one of the region's leading neonatal units which cares for babies with a range of needs from moderate to severe.



HEALTH CHALLENGES

Haiti struggles with the highest rates of infant (48.2 per 1,000 live births)¹ and maternal mortality (480 per 100,000 live births)² in the region.

- 59% of births take place without a skilled health professional.³
- 1 in 39 babies won't survive their first month.⁴
- 1 in 29 children will die before their first birthday.⁵

The neonatal period (first 28 days of a child's life) is the most vulnerable time for a child's survival.

The neonatal period (first 28 days of a child's life) is the most vulnerable time for a child's survival. According to the World Health Organisation, globally 2.4 million children died in the first month of life in 2019, with approximately 6,700 newborn deaths every day. In order for infant mortality to be reduced further, it is clear specific interventions around improving neonatal care are required.

This is especially true in a setting like Haiti which has a much higher infant mortality rate than any other country in the region. In 2012 a study showed that of all deaths of children under 5 years of age in Haiti, 34% died in the neonatal period, with approximately 90% of these deaths occurring in the first week of life.⁶

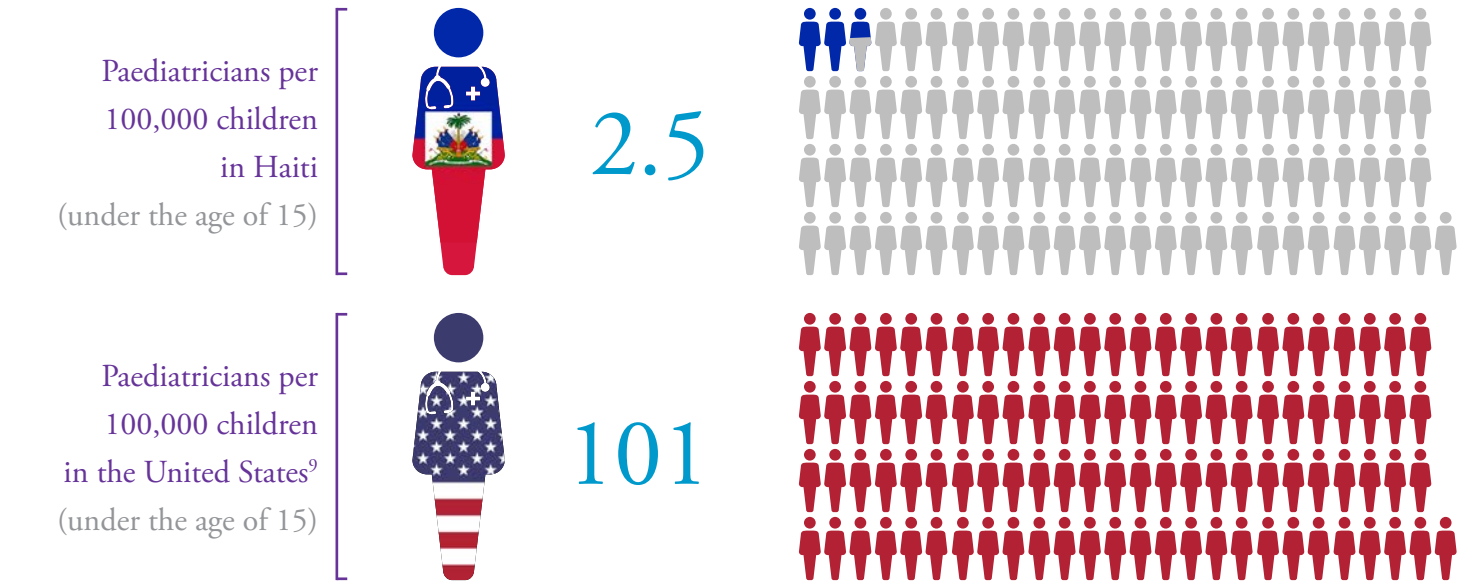
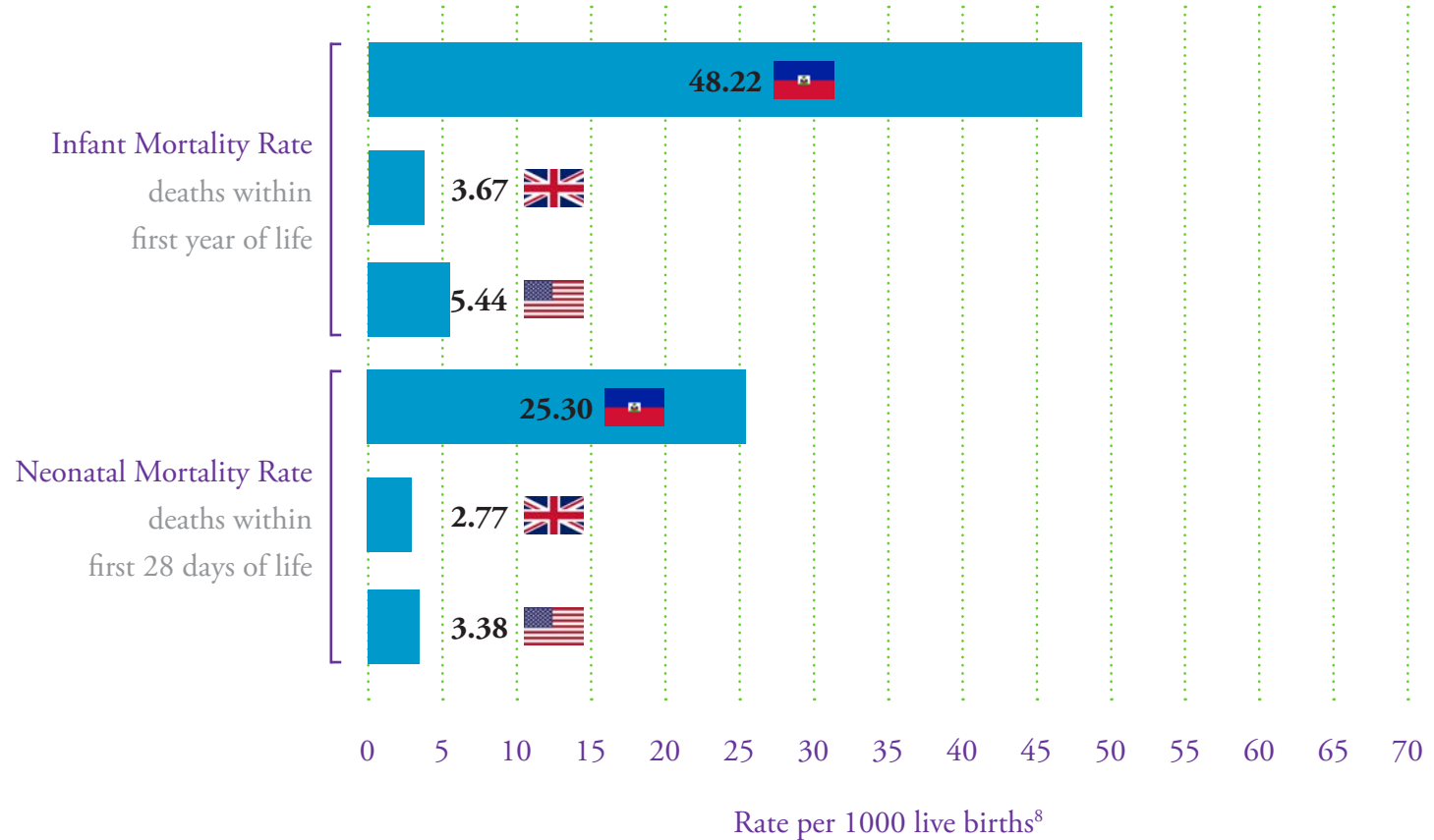
Major causes of neonatal death include prematurity (34%), birth asphyxiation and trauma (26%), and sepsis/other infectious conditions (18%)⁷

HHA has been passionate about tackling these challenges since being founded and believe the proposed new Neonatal Care Unit at our partner hospital will provide an excellent foundation to dramatically improve patient outcomes in the years ahead. Alongside the new unit this project will focus on equipping Haitian clinicians to improve neonatal outcomes through better equipment, training and administrative support.

One report documents there are about 2.5 paediatricians per 100,000 children under the age of 15 in Haiti. By contrast, in 2017/18 there were 101.2 certified paediatricians (including specialists) per 100,000 children in the United States

¹ The World Bank Infant Mortality Ratio Haiti 2019
² The World Bank Maternal Mortality Ratio Haiti 2017
³ UNICEF, 2017
⁴ UNICEF, 2019
⁵ UNICEF, 2019
⁶ Haiti: neonatal and child health profile: WHO: Department of Maternal, Newborn, Child and Adolescent Health; 2012
⁷ Mortality, morbidity and clinical care in a referral neonatal intensive care unit in Haiti, Plos One, October 2020
⁸ WHO The Global Health Observatory, latest data (accessed 2022)
⁹ Pediatric Physicians Workforce Data Book 2017–2018 American Board of Pediatrics 2018

NEONATAL HEALTH STATISTICS COMPARING HAITI TO UK AND USA



HOPE HEALTH ACTION

Hope Health Action has been working in Haiti since 2007, where we co-founded one of the leading hospitals in the north of the country, Hospital Convention Baptiste d’Haiti (HCBH). For 15 years, we’ve been working alongside local Haitian staff and leaders to support their vision, expand their medical training, access new technologies and essential equipment to grow their hospital facility and ensure their community has access to critical and comprehensive health and disability care. Where there was previously an empty field, there is now a 100+ bed facility, including a maternity ward, neonatal care unit, rehabilitation centre (the first of its kind in Haiti) and a respite care centre for children with disabilities.

Today, HCBH treats over 30,000 patients annually and employs over 330 Haitian staff.

In 2017, we expanded our work into Uganda and South Sudan, where we support refugees displaced by the South Sudanese war. In December 2021, we opened the New Hope Rehabilitation Centre, in BidiBidi, one of the largest refugee settlements in the world, which provides services to an immediate population of over 240,000 refugees, alongside a range of health, nutrition, disability and other relief projects. As HHA enters its 15th year in 2022, one of our exciting and ambitious goals is to expand our Neonatal Unit at our partner hospital in Haiti.

NOAH’S FUND

In 2019, our CEO and Co-founder's son, Noah, tragically and unexpectedly passed away. Rather than receiving gifts following the loss of their son, Carwyn and Reninca set up a fund in his memory called 'Noah’s Fund', set up to provide life-saving care to the most vulnerable mothers and babies across our work.

Carwyn and Reninca’s family and HHA have been humbled by the incredible generosity of so many people who donated in memory of Noah, enabling the dream of a new unit to become more of a reality. In the last few years these funds have already provided life-saving neonatal equipment to Haiti. In 2022, with funds committed to the new Neonatal Care Unit development, it is our hope that the vision of Noah’s Fund may start to become a reality and ensure thousands of babies can be saved in the years to come.

Carwyn (our CEO) has said, 'Noah received the very best care imaginable when he passed away. He was surrounded by a specialised army of highly qualified doctors and nurses with more equipment and materials than you could imagine. For most women and babies in Haiti, such care is a distant dream. We're passionate about Noah's Fund changing this through the new neonatal unit, so thousands of babies can be offered the life-saving care they deserve and need.'



HCBH HOSPITAL (EXISTING)

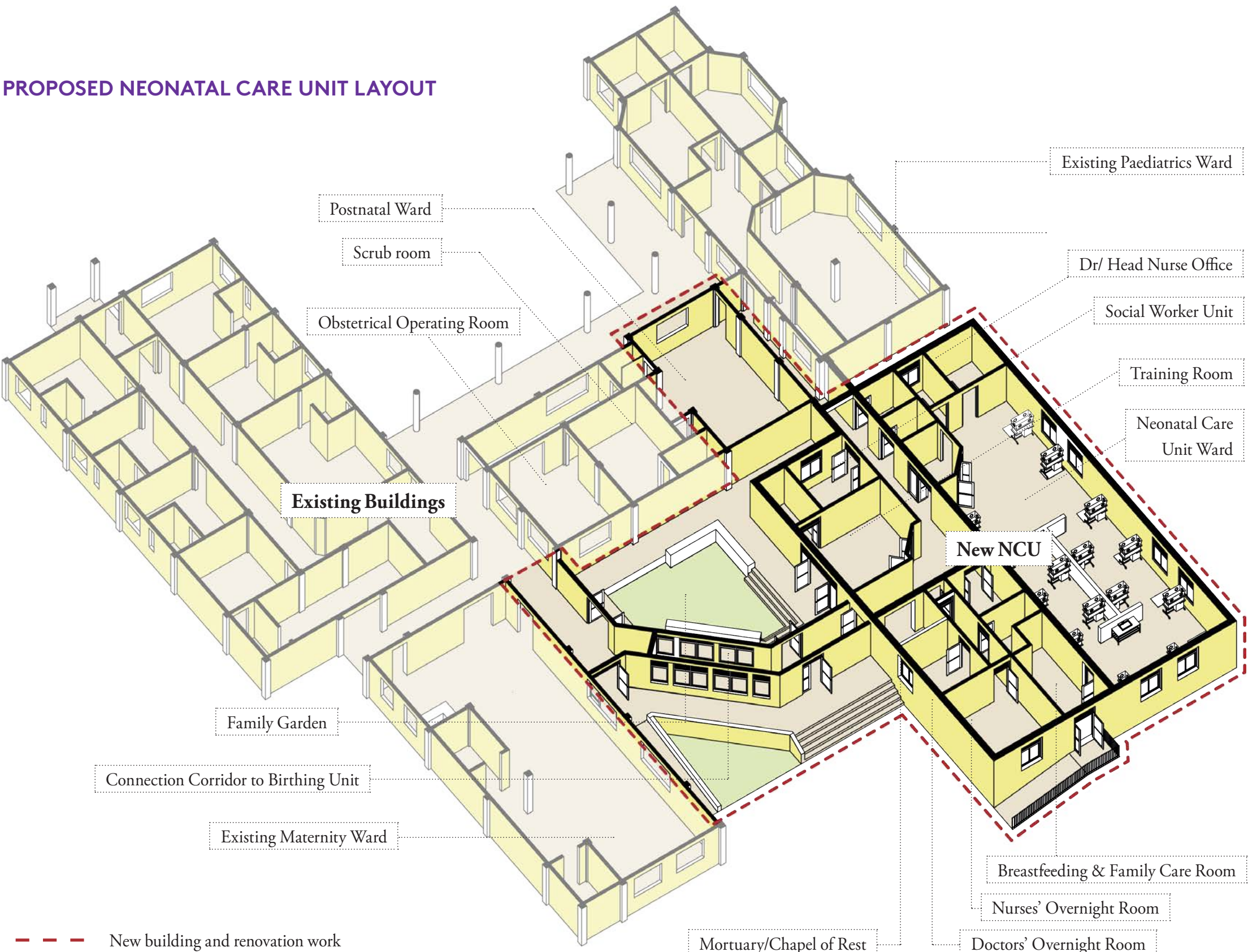


CURRENT UNIT

The existing Neonatal Unit at HCBH opened in 2012 with the capacity to treat up to 8 critically unwell or premature babies (regularly caring for over 650+ babies annually), alongside a 25 bed maternity unit that provides around 1,500 deliveries a year. However, within about 4 years of opening, the NICU was already becoming stretched beyond capacity. Despite having capacity for 8 babies, the unit has regularly cared for 14 babies at a time, sometimes over 20. Even in the final few months of 2021, the unit regularly cared for 20+ babies at once, who are forced to share cots, oxygen and specialist equipment. In these situations, despite the best efforts of staff, quality of care is significantly affected, with infection control and other critical standards impacted, alongside the negative impact on staff morale and care for mothers on the unit.

Following many years of consultation with leading local health providers and international experts, HHA and HCBH have now finalised plans to build a new Neonatal Care Unit at HCBH which will significantly improve the hospital's capacity to cater for the population's need and reduce neonatal mortality rates in the region.

PROPOSED NEONATAL CARE UNIT LAYOUT



CASE STUDY

Baby Lunji was born at HCBH in our maternity ward. She was premature at only 28 weeks and 6 days. During delivery, Dr Dorsanvil (Head OB-GYN) observed no movement in the newborn's chest area. Upon consultation with Dr Barbara (Head Pediatrician) and further assessment, baby Lunji was admitted to the Neonatal ward for immediate assistance. Lunji had difficulty breathing and was suffering from Apnea. She was placed on a CPAP machine which delivered a constant, steady supply of oxygen to aid her breathing, alongside other life-saving interventions.

She was premature at only 28 weeks and 6 days.

Had baby Lunji been born at home, without the presence of a skilled healthcare professional, she would have died. Thanks to the staff and facilities available at HCBH's Neonatal Unit, she survived and was discharged to return home.



UNIT IMPROVEMENTS

The new unit will dramatically improve care for mothers and babies. The new **Neonatal Unit** will triple in space capacity, expanding from 37.7m² to 110m², to safely accommodate up to 16 babies with an increased distance between cots (2.4m vs. current 0.5m) to reduce the risk of infection between babies. One-third of neonatal deaths around the world each year are caused by severe infections.

The new ward alongside low cost interventions and increased training can significantly reduce the risk of life-threatening infections. Increased ward space will also enable a comfortable environment for mother-led care (mother seating besides each cot), improving breastfeeding which has significant health, social and economic benefits.

The new unit will seek to increase breastfeeding rates back to 80+% of mothers, from current levels of 53% at HCBH. The improved space will also enable kangaroo care, an evidenced based strategy known to significantly improve neonatal outcomes. A recent study showed that the initiation of continuous kangaroo care soon after birth improved neonatal survival by 25%.¹ Mothers will be supported with a **Breastfeeding/Family Care Room**, **Postnatal Ward** and a private, shaded **Courtyard** for family members.

Additional features will include a **Training Room** to support HHA's long-term approach to improving systems, processes and training (with telehealth capacity over the internet) and a **Mortuary/Chapel of Rest** to provide dignified care for families after the loss of a child.

New offices for the Head Doctor, Head Nurse and Hospital Social Worker at the heart of the unit will also significantly improve care, meeting the emotional, physical and spiritual needs of the patients in a more sensitive manner.

Improving the working environment for the doctors and nurses who manage this unit is another central component of this new design. Staff morale has at times been impacted due to insufficient clinical space, lack of toilets and rooms for resting. This new design provides **staff accommodation**; a safe, dignified space to rest and recharge during a busy work day.

Alongside these critical infrastructural improvements, HHA will be implementing a range of other service improvements that will complement the new facility and help facilitate improved neonatal outcomes. This will include (though not limited to) improved staffing ratios, more focused patient education (for instance on benefits of breastfeeding), more robust and effective data collection and analysis, the introduction of mortality reviews which partner organisations have seen to help dramatically reduce mortality rates and increased telehealth training and mentorship. We are confident this combined approach of improvements will directly aid improved patient care and outcomes, helping to save the lives of thousands of babies in the years to come.

¹ Immediate 'Kangaroo Mother Care' and survival of Infants with Low Birth Weight, WHO Immediate KMC Study Group

EXISTING WARD



PROPOSED WARD



ESTIMATED PROJECT COSTS

Element	US Dollar \$	%
Mobilisation	\$ 149,000	29%
Concrete/Masonry	\$ 88,00	17%
Metal	\$ 53,000	10%
Doors/Windows	\$ 39,000	8%
Carpentry/Finishes	\$ 31,000	6%
Mechanical Services	\$ 25,000	5%
Electrical Services	\$ 19,000	4%
Management	\$ 106,000	21%
Total Construction	\$ 510,000	100%
Architecture	\$ 21,000	
Engineering	\$ 33,000	
Administration	\$ 80,000	
Contingency 3%	\$ 16,000	
Project Total	\$ 660,000	

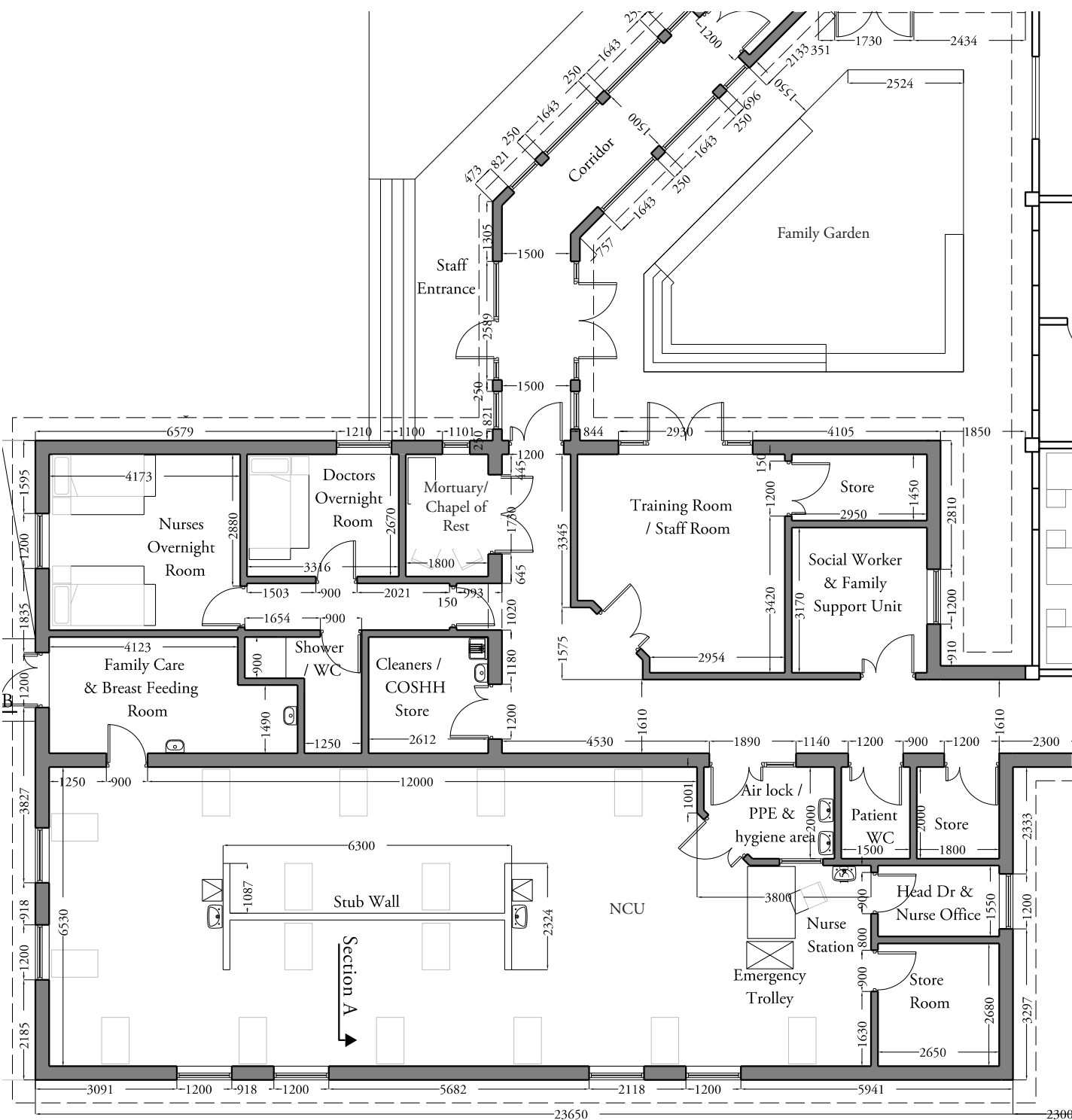
The above costs represent a detailed cost estimate by our design and construction partner, BHI whilst more comprehensive pre-construction Architect and Engineering plans are developed over the next 4 months. The above costs are subject to change inline with local inflation fluctuation.

BUILD HEALTH INTERNATIONAL

Build Health International (BHI) was founded in the aftermath of the 2010 earthquake, as the tragedy highlighted the need for accessible, comprehensive, and seismic-proof healthcare infrastructure in Haiti. BHI's first project after the earthquake, Hôpital Universitaire de Mirebalais, redefined what was possible for designing and building health infrastructure in low-resource settings. Over the past decade, BHI has carried the lessons learned from building Haiti's largest public-sector hospital into over 60 projects across the country.

BHI promotes global equity by developing high-quality health infrastructure to enable access to dignified and affordable healthcare to those who need it most. Working with public sector and NGO partners in fragile health systems, they develop infrastructure solutions that elevate the quality and accessibility of healthcare in the most impoverished and resource-constrained regions of the world.

BHI offers a common-sense approach to infrastructure that allows for delivery of high-quality care that can also be operated and maintained in a resource-constrained setting. They work to make each of their healthcare facilities a part of robust public healthcare systems that will provide long-term quality, accessible, and affordable care to the local community.



FUNDING

Noah's Fund	\$ 100,000	15%
Major donor	\$ 150,000	23%
Total funds secured	\$ 250,000	38%
Total Project	\$ 660,000	100%

Hope Health Action and our partner, Build Health International (BHI) have the capacity to commence this project either in the second half of 2022 or early 2023 depending on fulfilment of fundraising goals.

SPONSORSHIP OPPORTUNITIES

HHA is looking for partners to collaborate with us on this exciting and ambitious project. We have a number of unique and rewarding ways for you to support our goal of transforming the lives of vulnerable babies and their families in Haiti. This could be donating funds towards the building costs of the unit, contributing towards new equipment or even sponsoring a member of staff.

Every donation, no matter the value, can make a difference and we would be delighted to discuss bespoke opportunities with potential partners and look forward to working with you to make this dream a reality.

