

Mondulkiri Neonatal Ward 2021-2023



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Chenla Children's
H E A L T H C A R E

ABOUT US

Our Mission

Chenla Children's Healthcare's mission is to deliver holistic pediatric care and clinical outreach to surrounding communities in eastern Cambodia provinces affected by poverty and disease. Working in direct partnership with the Ministry of Health (MoH) of the Royal Government of Cambodia, Chenla provides patient services to children in need, improves the infrastructure and health systems of the provinces, and improves health worker education in the region.

Our Model

Chenla Children's Healthcare is part of a public-private partnership and integrated within the Royal Cambodian Government Referral Hospital system. Utilizing existing government facilities, medication, supplies, and staff, Chenla provides international-standard medical care to children suffering from infectious disease, febrile illness, premature birth, and more. We follow Cambodia's health equity fund (HEF) system which provides free or discounted healthcare to eligible families. Chenla collects revenue from donors, reimbursement for care provided to HEF patients, and patient-paid fees. We provide care to a diverse community, including ethnic minorities, migrant workers, undocumented immigrants and many others in this poor, remote region. No child is ever turned away.



PROJECT DETAILS

Context

Cambodia continues to have startlingly high levels of neonatal mortality in its least developed provinces of Kratie, Mondulkiri, Rattanakiri and Stung Treng. While urban centers such as Phnom Penh, Battambang, and Siem Reap have significantly improved neonatal mortality rates, rural eastern Cambodia lags far behind with up to 1 in 15 neonates dying in the earliest period of life (Cambodian Health and Demographics Survey 2014). A collaborative effort between the national government, donors, and the local community is urgently needed in order to address this issue.



Rural poverty is a major driver of mortality in this region. According to the Asia Development Bank's 2014 Poverty Assessment Report, 75% of Cambodia's population live in rural areas and three-quarters of the population live on less than \$3 USD a day. In Mondulkiri, more than 50% of the population live at the lowest quintiles of wealth yet have the second highest average treatment-related costs, including transport and healthcare costs, in the country (CHDS 2014). Compared to other regions, few people in Mondulkiri report using the Health Equity Fund to receive free healthcare and related transportation despite the high poverty rate and high costs of treatment, with a majority of healthcare costs being paid out of wages and savings (CHDS 2014).

Cambodia's eastern provinces are largely made up of ethnic minorities including Phnong, Krung, Kuy, Mnong, and Cham, many of whom don't speak Khmer. These groups face socio-economic problems related to low education levels and remoteness as well as being disproportionately affected by high levels of malnutrition and stunting due to food insecurity. The provision of services to and the health seeking behavior of these groups lag behind other areas in Cambodia, which are predominantly ethnically Khmer.

Most people in eastern Cambodia have very limited access to the more advanced health services in Phnom Penh and Siem Reap, with travel time exceeding 6 hours. The costs of transportation and the health care itself are prohibitive. The local health facilities in eastern Cambodia suffer from significant quality issues and currently lack many of the resources needed to make fast paced strides forward in neonatal care while

there are limited linkages to the higher level tertiary facilities in other regions. Chenla Children's Kratie neonatal ward regularly receives patients from Mondulkiri with families having travelled hours to reach Kratie with their gravely ill children as well as women who are experiencing preterm labor whose babies would need immediate live-saving measures to survive as there are no such resources close to home. Therefore, Chenla Children's Healthcare's Mondulkiri neonatal ward will be run at Mondulkiri Provincial Hospital so that quick progress is made and so that it can be absorbed into the government system in a sustainable way over time.

Mondulkiri Neonatal Ward

Chenla Children's Healthcare has developed a quality pediatric center at Kratie Referral Hospital that will serve as a model and guidepost for this expansion work into Mondulkiri province. The goal is to deliver high quality neonatal care at the provincial hospital in the capital Senmonorom as well as clinical outreach to surrounding communities. Working conjointly with the Ministry of Health, Chenla Children's will provide neonatal services to patients in need, improve the infrastructure and health systems for neonatal care in the province, and improve health worker education for neonatal care across eastern Cambodia.

Chenla Children's Neonatal Ward at Mondulkiri Provincial Hospital aims to:

- Make services closer and more responsive to the public.
- Scale up coverage and access to health services for neonates in the region.
- Increase competency and skills of national health workforce.
- Work with pro-poor health financing systems including HEF and other mechanisms to assist the neonates in need of medical care who are poor.
- Reinforce health legislation, professional ethics and codes of conduct for neonatal care.
- Promote public-private partnership in service provision with the long term goal of strengthening the public sector.
- Improve quality through compliance with national protocols.
- Encourage community engagement and feedback about the project.
- Increase investment in physical infrastructure.



Goal: To reduce neonatal mortality in Mondulkiri province by providing accessible, high quality neonatal care at Mondulkiri Provincial Hospital (MPH).

Inputs

Activites

Outcomes

- Advocacy
- Partners
- Funding
- Facilities
- Time
- Staff
- Equipment

- Establish a partnership with the Mondulkiri Health Department.
- Provide high quality neonatal healthcare at MPH.
- Engage the local community about the neonatal services provided at MPH.
- Provide neonatal health educational outreach, including early recognition of neonatal illness to remote towns and villages.
- Establish an on-site HEF processing desk for low-income patient families.
- Establish a stabilization, referral, and transport center at MPH for neonates needing higher-level care such as surgeries or extended intensive care unit services.
- Train and empower local healthcare personnel in high quality neonatal care at MPH.

- Strengthened local health system with improved sustainability of high quality neonatal care at MPH.
- Access to high quality neonatal care in Mondulkiri province.
- Increased knowledge and awareness of neonatal health issues and available health services at MPH among the local community.
- Increased number of eligible families registered with HEF who are in need of access to free or reduced cost neonatal healthcare and general pediatric care in the future.
- Increased utilization of neonatal services at MPH by all strata of the local community.
- Provision of safe transport of neonatal patients at MPH in need of transfer to a higher level facility.
- Increased number of local healthcare personnel trained in high quality neonatal care.
- Decreased local neonatal morbidity rate.
- Decreased local neonatal mortality rate.

PATIENT STORY

Sineath's mother Vy was just 7 months pregnant when she went into labor in late February, 10 weeks early. She and her husband Ouch live in rural Mondulkiri province. Despite the distance, they made the 2.5-hour motorbike journey to Kratie Regional Hospital while Vy was in labor because they knew that Chenla Children's Healthcare would be able to care for their premature newborn, while no such services exist in Mondulkiri.

Chenla doctors and nurses were in the delivery room upon Sineath's birth and provided immediate neonatal resuscitation as his lungs were not developed enough to breath on his own. Quickly, Sineath was transferred to Chenla's NICU where he is gaining weight, breathing well and responding to his father's touch. Without Chenla, premature babies like Sineath are unlikely to survive after birth, with preterm birth complications the leading cause of death among neonates. Most of these babies can be saved with efficient, proper, and fairly simple neonatal care.



FINANCIALS

MONDULKIRI BUDGET DETAILS

	Total over 3 Years	2021	2022	2023	%
Local Staff Costs	\$510,120	\$34,970	\$221,000	\$254,150	46%
Expatriate Staff Costs (Drs. Bill & Lori/future expatriate assistance)	\$14,000	\$0	\$0	\$14,000	1%
Overheads	\$55,000	\$5,000	\$20,000	\$30,000	5%
Other Support	\$0	\$0	\$0	\$0	0%
Training	\$10,000	\$6,000	\$2,000	\$2,000	1%
Aid (Emergency/Commodity)	\$2,500	\$500	\$1,000	\$1,000	1%
Construction/Renovation	\$106,534	\$91,534	\$10,000	\$5,000	9%
Drugs/medicals	\$150,000	\$10,000	\$60,000	\$80,000	14%
Equipment	\$175,110	\$87,610	\$77,500	\$10,000	16%
Transport	\$24,000	\$8,000	\$8,000	\$8,000	2%
Operating Cost	\$38,579	\$12,000	\$12,840	\$13,739	3%
Monitoring	\$4,500	\$500	\$2,000	\$2,000	1%
Promotion	\$3,000	\$1,000	\$1,000	\$1,000	1%
Reserve Funds	(6 months)	(6 months)	(6 months)	(6 months)	(6 months)
Total	\$1,093,343	\$257,114	\$415,340	\$420,889	100%

EQUIPMENT REQUIRED

	Qty.	Unit Cost	Total Cost
Nebulizer Machine	5	\$50.00	\$250.00
Dolphin CPAP	10	\$3,400.00	\$34,000.00
Phototherapy Light	3	\$1,300.00	\$3,900.00
WARMER	5	\$2,000.00	\$10,000.00
Mobile X-ray	1	\$7,000.00	\$7,000.00
I-STAT Machine	1	\$10,000.00	\$10,000.00
Patient Monitor	10	\$1,500.00	\$15,000.00
Suction Machine	3	\$120.00	\$360.00
Syringe pump	4	\$1,300.00	\$5,200.00
Infusion Pump	15	\$1,500.00	\$22,500.00
Portable Ultrasound	1	\$7,000.00	\$7,000.00
Otoscope and Ophthalmoscope (set)	1	\$1,200.00	\$1,200.00
Laryngoscope set	5	\$150.00	\$750.00
Statoscope (neonatal and pediatric)	5	\$100.00	\$500.00
Baby cot	15	\$200.00	\$3,000.00
Puritan Bennett 840 Ventilator	3	\$17,000.00	\$51,000.00
Blanket warmer	2	\$25.00	\$50.00
Baby scales	2	\$50.00	\$100.00
Centrifuge Machine	2	\$350.00	\$700.00
Jaundice Meter Machine	1	\$400.00	\$400.00
ER bed for procedure	1	\$200.00	\$200.00
EKG Machine	1	\$2,000.00	\$2,000.00
Total Cost		\$175,110.00	