

មណ្ឌលថែទាំសុខភាព កុមារចេនឡា  
**Chenla Children's**  
H E A L T H C A R E

COMPASSIONATE CARE  
WHERE IT'S NEEDED  
MOST

# One in twelve

children die before their fifth birthday in  
Cambodia's rural areas,  
a rate FIVE times higher than for children in  
Phnom Penh



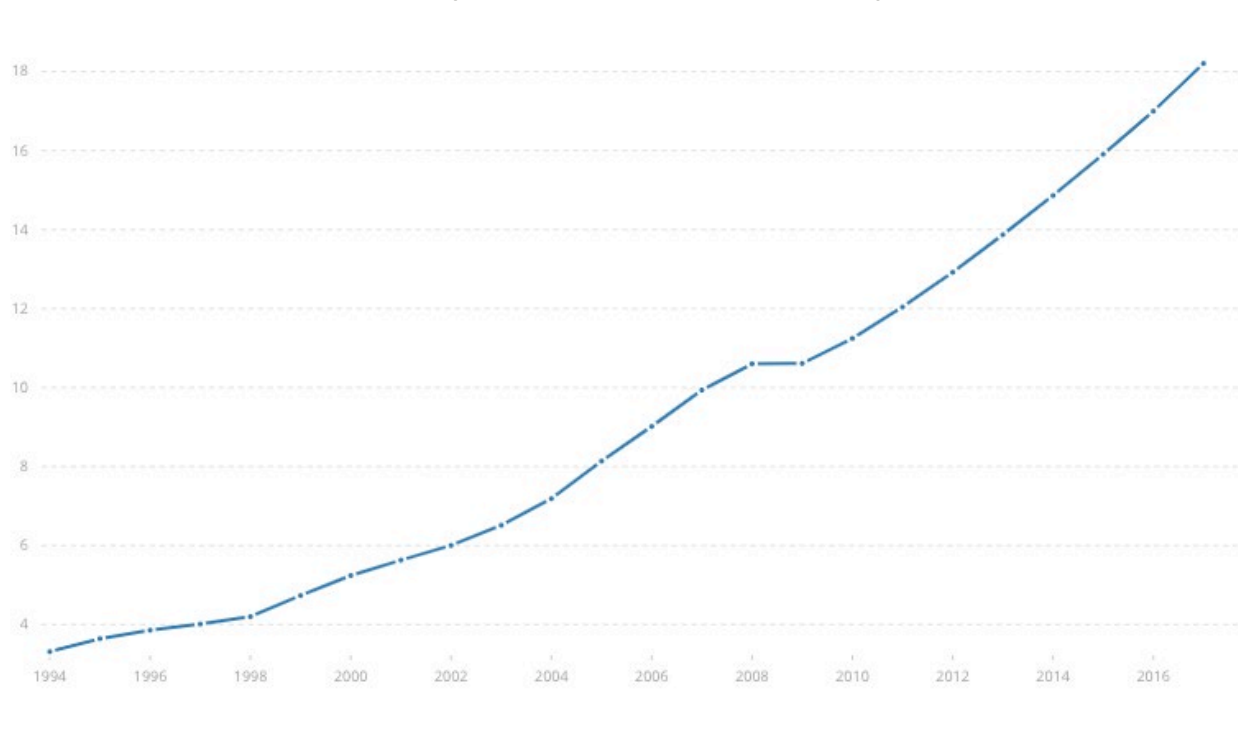
## Why?

- 75% of Cambodia's population lives in rural areas, where they lack access to quality healthcare facilities
- Existing rural hospitals face human capital challenges: physician shortages, poor salaries in comparison with the private market in larger cities & management challenges
- These hospitals also need hygiene process improvements & sufficient medication, medical supplies & infrastructure



# Cambodia is Experiencing Explosive Economic Growth

Cambodian GDP (in constant 2010 \$US), 1994-2017\*



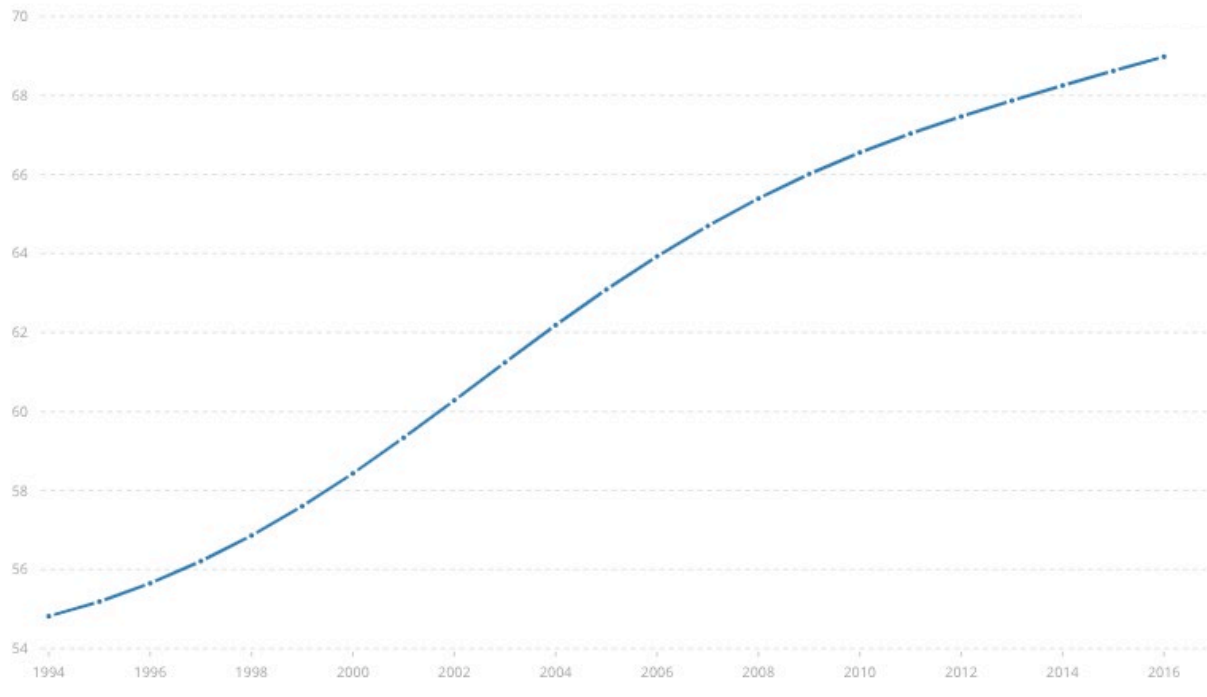
- Cambodia's economy had an average annual real GDP growth rate of 7.1% from 1994 to 2017, making it the world's sixth-fastest growing economy.
- The percentage of Cambodians living below the poverty line (\$0.93 USD per day) declined from 47.8% in 2007 to 19.8% in 2011. It was estimated to have declined further to 13.1% in 2014.\*\*
- Still, 70% of people in Kratie province live on less than \$3 USD per day, and in Stung Treng and Kratie, 46% and 34% of people respectively are in the lower quintile of wealth.

\*<https://data.worldbank.org/indicator/NY.GDP.MKTP.KD?end=2017&locations=KH&start=1994>

\*\*Cambodia Department of Planning and Health Information. Health Strategic Plan 2016-2020. Phnom Penh: Department of Planning and Health Information. May 2016. Web. 11 Feb 2019. [http://hismohcambodia.org/public/fileupload/carousel/HSP3-\(2016-2020\).pdf](http://hismohcambodia.org/public/fileupload/carousel/HSP3-(2016-2020).pdf)

# Health Status Dramatically Improved, but Lags Neighboring Countries

Life Expectancy at Birth, 1994-2017\*



- Life expectancy at birth increased from 56 years in 1996 to 69 years in 2016\*
- Under five mortality decreased from 124 to 35 deaths per 1000 live births from 2000 to 2014\*
- However, rural areas continue to lag: under 5 mortality in Phnom Penh is only 23 per 1000 live births, but rises to 80 in the rural provinces of Kratie, Mondul Kiri and Ratanak Kiri.\*\*
- 25.6% of deaths in Cambodia are due to non-communicable diseases, poor maternal, and prenatal care, and poor nutrition. This exceeds rates in neighboring countries (Thailand at 15.8% and Vietnam at 11.5%)\*\*\*

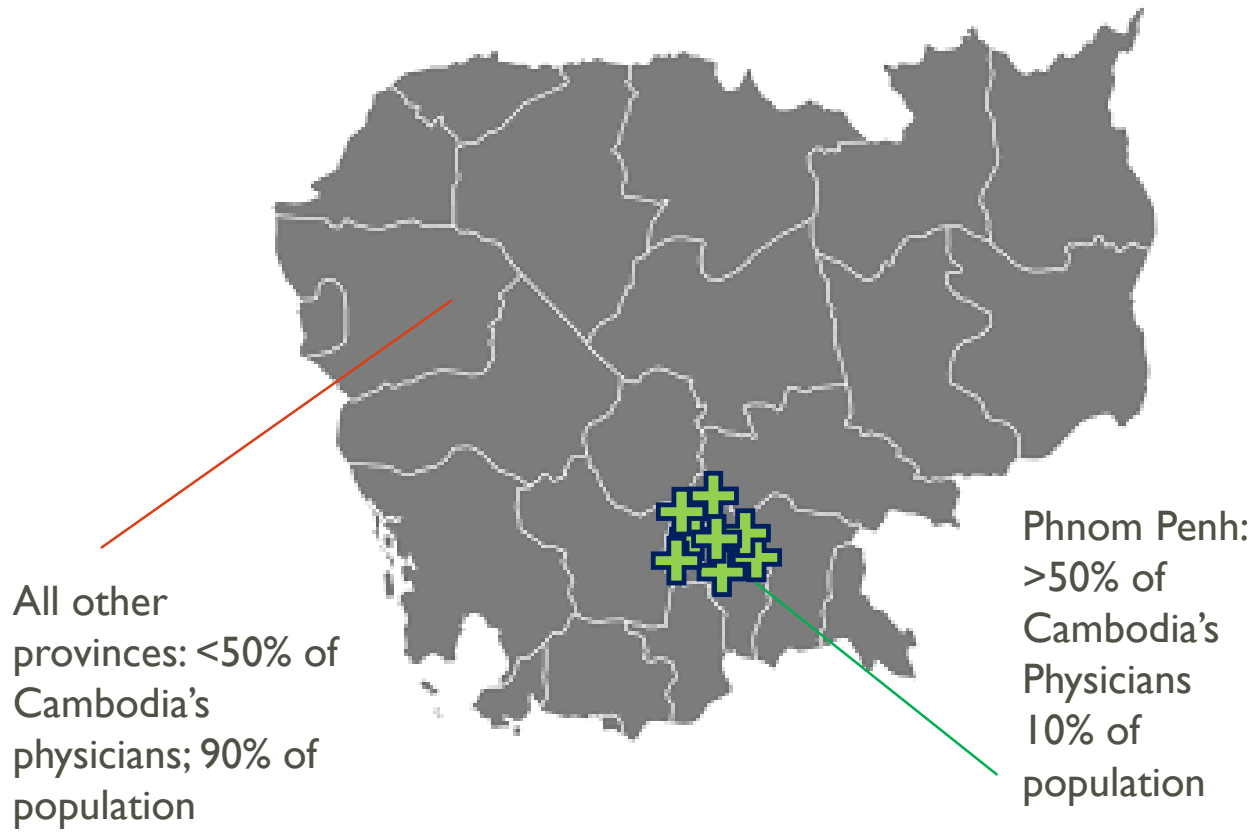
\*Life Expectancy at Birth, Total. The World Bank. Feb 2019. Web. 11 Feb 2019 <https://data.worldbank.org/indicator/SP.DYN.LE00.IN?locations=KH>

\*\* National Institute of Statistics, Directorate General for Health, and ICF International, 2015. Cambodia Demographic and Health Survey 2014. Phnom Penh, Cambodia, and Rockville, Maryland, USA: National Institute of Statistics, Directorate General for Health, and ICF International. p. 129

\*\*\*<https://data.worldbank.org/indicator/SH.XPD.CHEX.GD.ZS?locations=UA>

# Shortage of Doctors, Especially in Rural Areas

Distribution of Doctors vs. Population (2010)\*



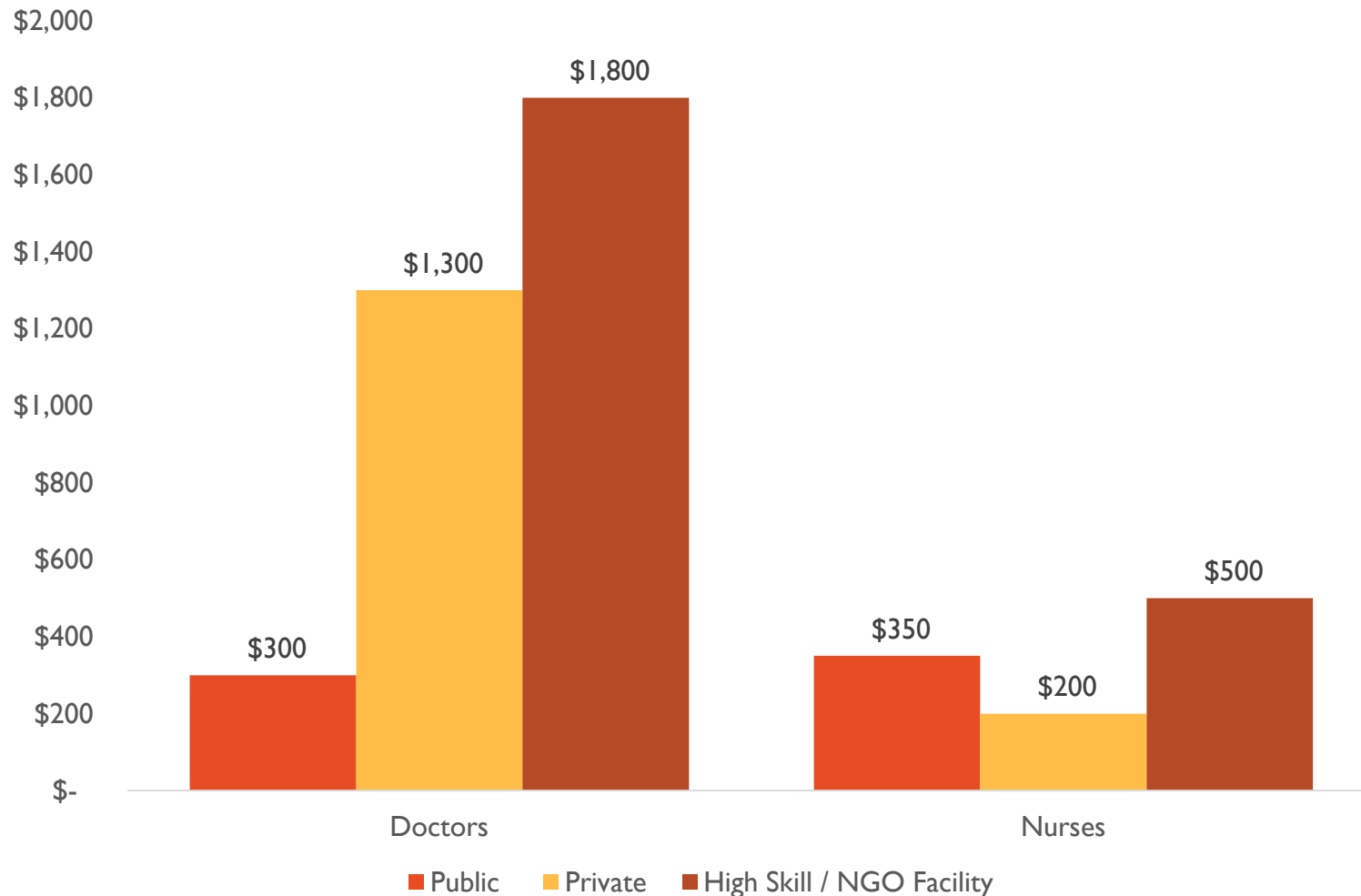
- Much of the Cambodia's medical infrastructure was decimated during the Khmer Rouge regime – it is estimated that only 45 doctors remained in the country in 1979.
- Today the number of physicians in Cambodia remains low, at fewer than two per 10,000 people – in comparison, Thailand has 4.7 physicians per 10,000 people, and Vietnam has 8.2.
- Doctors are also disproportionately in the large cities, while the population remains heavily rural

\*Chhea C, Warren, N and Manderson, L 2010, 'Health worker effectiveness and retention in rural Cambodia', Rural and Remote Health, vol. 10.

\*\*The World Factbook: Cambodia. U.S. Central Intelligence Agency. 2014. Web. 11 Feb 2019 <https://www.cia.gov/library/publications/the-world-factbook/geos/cb.html>

# Public Facilities Face Human Capital Challenges due to Poor Compensation

Typical Compensation Levels by Facility Type



- Doctors in public facilities are poorly compensated vs. the private sector and higher-quality NGO facilities.
- Many in public facilities supplement their income by also practicing in private clinics, sometimes during public hospital working hours
- Nurses appear to earn more in public facilities, but this accounts for temporary payments they must make to officials who helped them get their positions

# Chenla Children's Healthcare is Transforming Care Inside the Government System



- Chenla is a children's hospital founded inside of Kratie Provincial Hospital (KPH) – an existing government facility
- Chenla leverages existing facilities, medications, supplies, funding, and staff, combining it with a new leadership, organizational, and human capital model to provide dramatically better care
- This level of care – for children with infectious and respiratory disease, and premature birth – previously did not exist in rural Kratie Province
- Children are treated regardless of ability to pay, but those who can, do. Already, patients choose Chenla over private providers – paying a fee to receive care at the very government facility they previously avoided
- Demand grew from 30 to 1300 children monthly in the first 18 mos.
- With the government funding basic salaries and facilities, Chenla is able to use limited donor funds for higher-level medication, providing care to needy kids, and transporting the very sick to national hospitals

# Chenla Children's Healthcare: How It Works



## Unique Human Capital Model

- Founding team from Angkor Hospital for Children, including the hospital's former director
- Full- & part-time staff of 50 includes only 2 expatriates (both physicians)
- Recruited a talented Cambodian medical director, 3 senior doctors, & head of nursing



## Collaboration with Public System

- Basic supplies and medications, and 30% of staff salaries are government-funded
- Health Equity Fund (HEF) covers families unable to pay; fees charged to those who can pay
- Pediatrics care now accounts for 18% of total provincial hospital revenue (up from 2%)

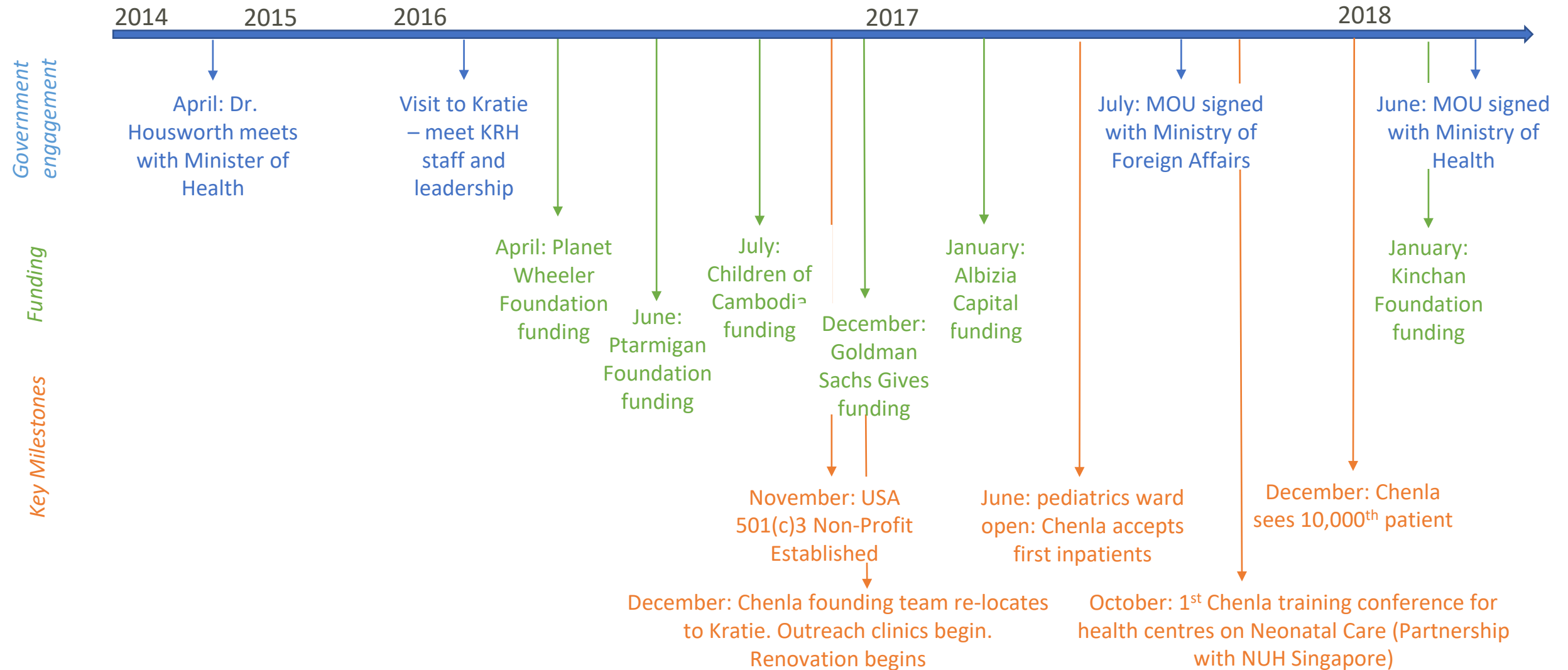


## Partnership with NGO's

- Donor funds cover medication and technology often unavailable in public facilities
- Ensures Chenla able to provide care free-of-charge to families who cannot afford it and/or have exhausted HEF coverage
- Flexibility to expand revenue-generating activities within Cambodia



# Chenla Children's Healthcare: Founding Timeline



# Chenla Children's Healthcare at a Glance

**26**

Inpatient beds, of which 2  
ICU and 6 Neonatal

**2**

Outpatient exam rooms



**11**

Pediatricians

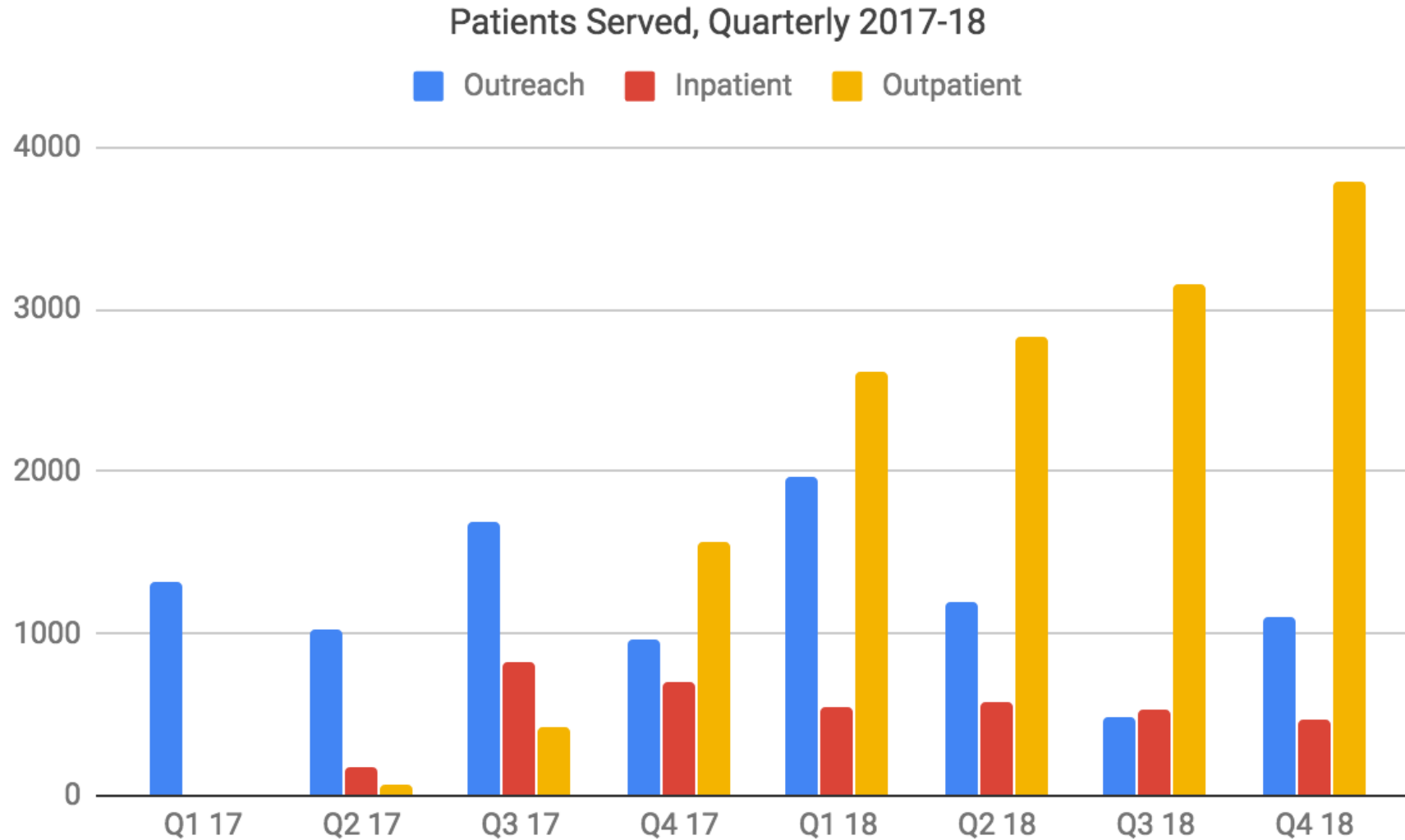
**20**

Nurses

**5**

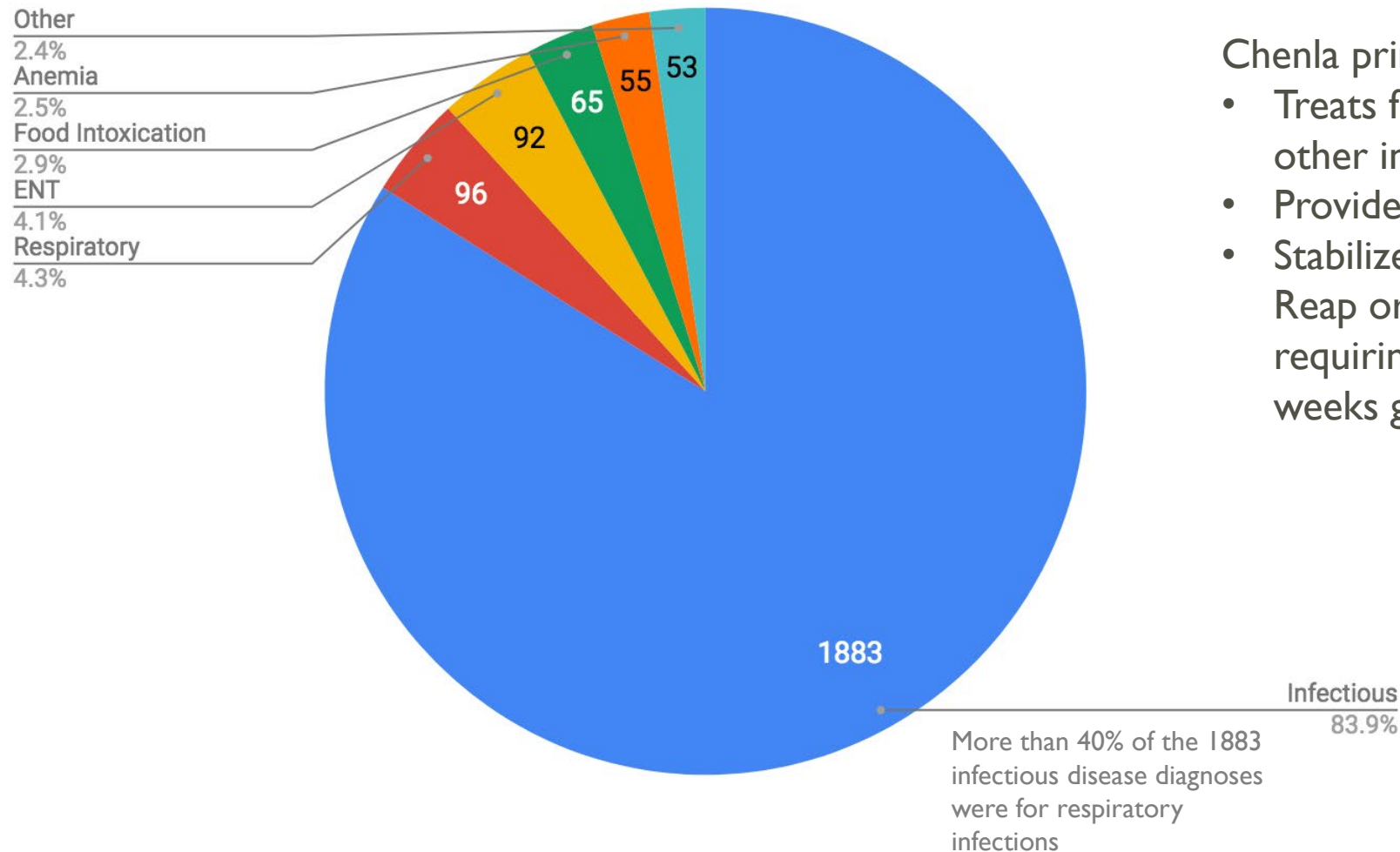
Support staff

# Chenla's Volumes Have Steadily Grown Since Founding



# Chenla's Services

Pediatric Discharge Diagnoses 2018



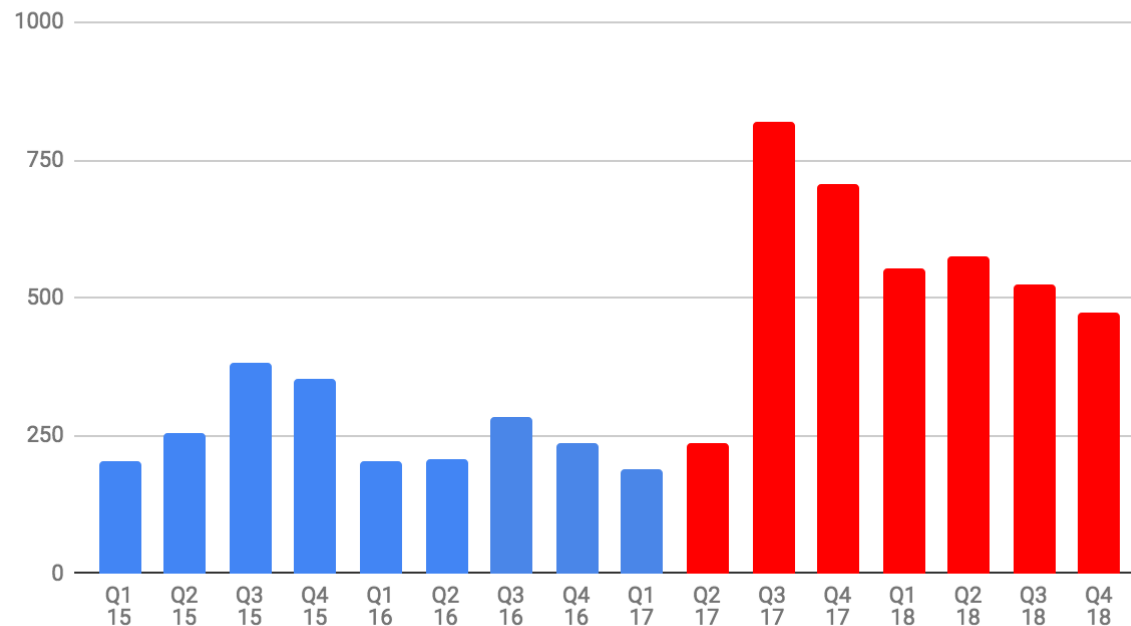
Chenla primarily:

- Treats febrile illnesses, respiratory illnesses, and other infections
- Provides neonatal care
- Stabilizes critical illness for transport to Siem Reap or Phnom Penh. Common problems requiring transport include birth at less than 32 weeks gestational age and sepsis.



# Chenla Has Increased Volumes for Kratie Provincial Hospital

Pediatric Patient Admissions Kratie Referral Hospital, 2015-18



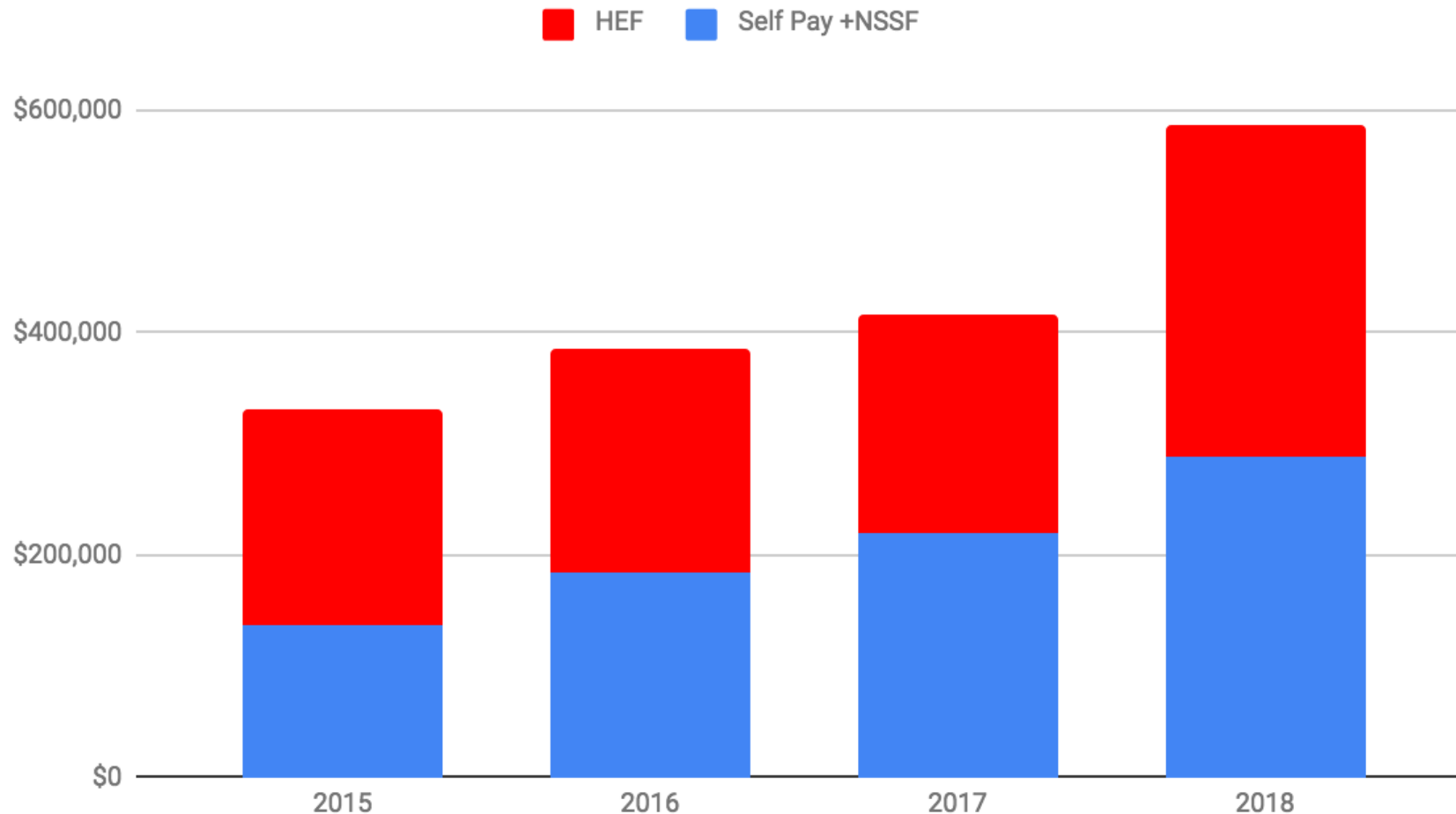
Total Pediatric Patient Admissions 2015-18, Kratie Provincial Hospital

	2015	2016	2017	2018
<b>TOTAL</b>	1,194	930	1,950	2,126
<b>YOY Change</b>	--	78%	210%	109%

- Prior to Chenla taking over the pediatrics ward, KPH's pediatric patient numbers were significantly lower: admissions declined from 2015 to 2016, then more than doubled in the year that Chenla opened
- In each month of the first year of Chenla's operation, KPH delivered a larger percentage of the provinces' babies than it did in the same month the previous year
- KPH has consistently delivered 300+ more babies in each of the post-Chenla years than it did in the year immediately preceding Chenla opening

# Chenla Has Increased Revenues for Kratie Provincial Hospital

Revenue from Self Pay and HEF Patients, KRH & Chenla, 2015-18 Quarterly



- Chenla's presence has driven increases in fees in the hospital overall
- In Chenla's first full year (2018), HEF funds collected for *adult* patients was up by 66% (despite a lapse in funding for HEF assessment which meant that no new patients could receive HEF reimbursement for the first half of the year.)

Note: Self-pay total includes NSSF payment of between approximately \$3,000-5,000 total per year in 2015-17, and \$33,000 in 2018. NSSF is a national insurance scheme for government staff and workers.

# Chenla Financials at a Glance

	2017	2018
Total Revenue (Donations)*	\$408,803	\$483,102
Program Expenses	\$306,295	\$420,808
G&A	\$28,524	\$23,672
Total Expenses	\$334,819	\$444,479
Net Revenue	\$73,984	\$38,623

Financials do not reflect:

- Patient and government (HEF) paid user fees totaling \$82K in 2018; these are generated by Chenla but go directly to KPH
- Expenses totaling \$171K in 2018, which Chenla avoided due to the partnership with KPH. Specifically:
  - Salaries for KPH staff providing shared services & KPH salary payments to Chenla staff: KPH paid for slightly more than 30% of salary cost for Chenla staff in 2018 (\$135K)
  - Medication and supplies obtained from the KPH central storehouse (est. \$18K/year)
  - Energy costs covered by KPH (est. \$18K/year)
  - Costs for supply and maintenance of key energy machinery, such as generators.

\*Donations for 2017 differ from audited statements which included \$60,000 from the Ptarmigan Foundation and \$45,000 from the Planet Wheeler Foundation in 2016. The audited statements reflect total donations of \$513,803 in 2017.



THANK YOU