



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

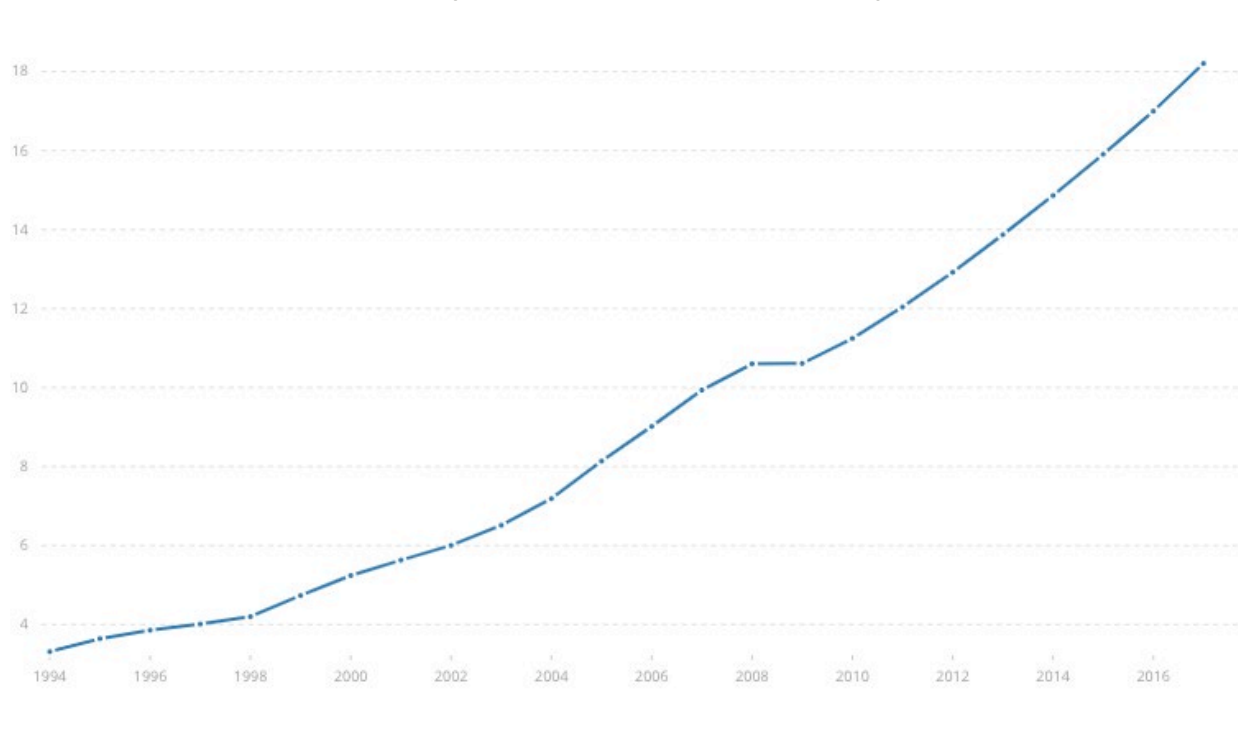


Why?

- 75% of Cambodia's population lives in rural areas, where they lack access to high quality healthcare facilities
- Existing rural hospitals face human capital challenges: physician shortages, salary inequality 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*



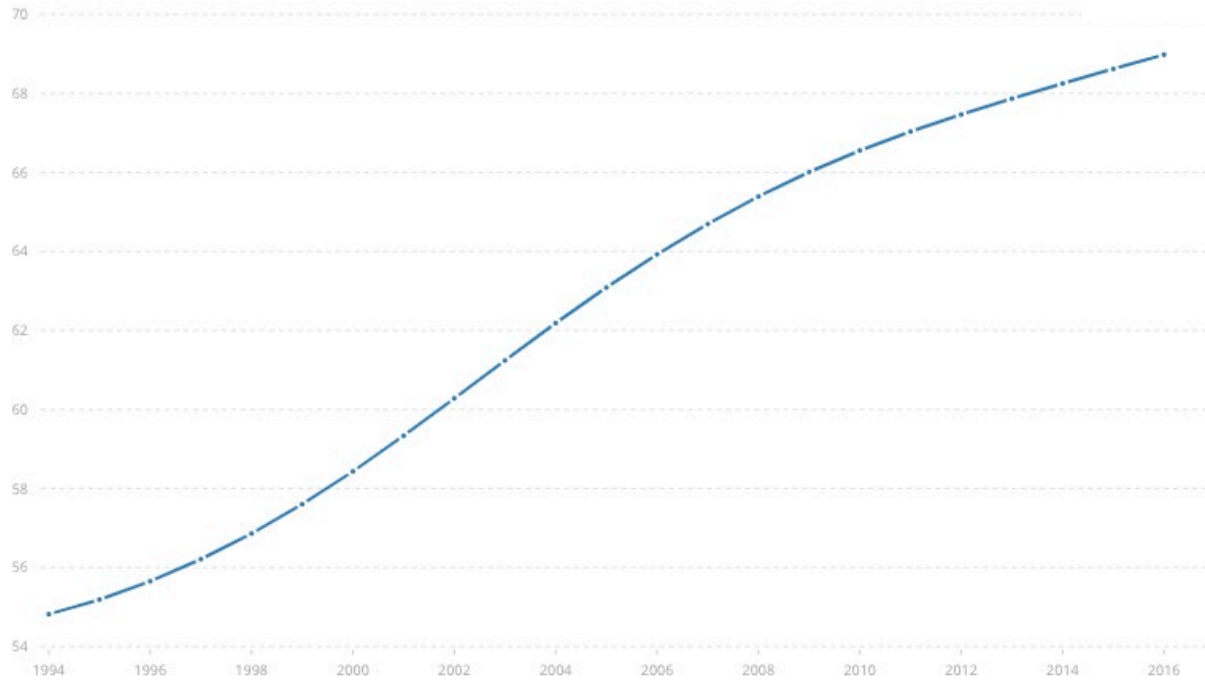
- Cambodia's economy had an average annual real GDP growth rate of 7.1% from 1994 to 2017, making it the world's sixth-fastest growing economy.
- The percentage of Cambodians living below the poverty line (\$0.93 USD per day) declined from 47.8% in 2007 to 19.8% in 2011. It was estimated to have declined 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%)***

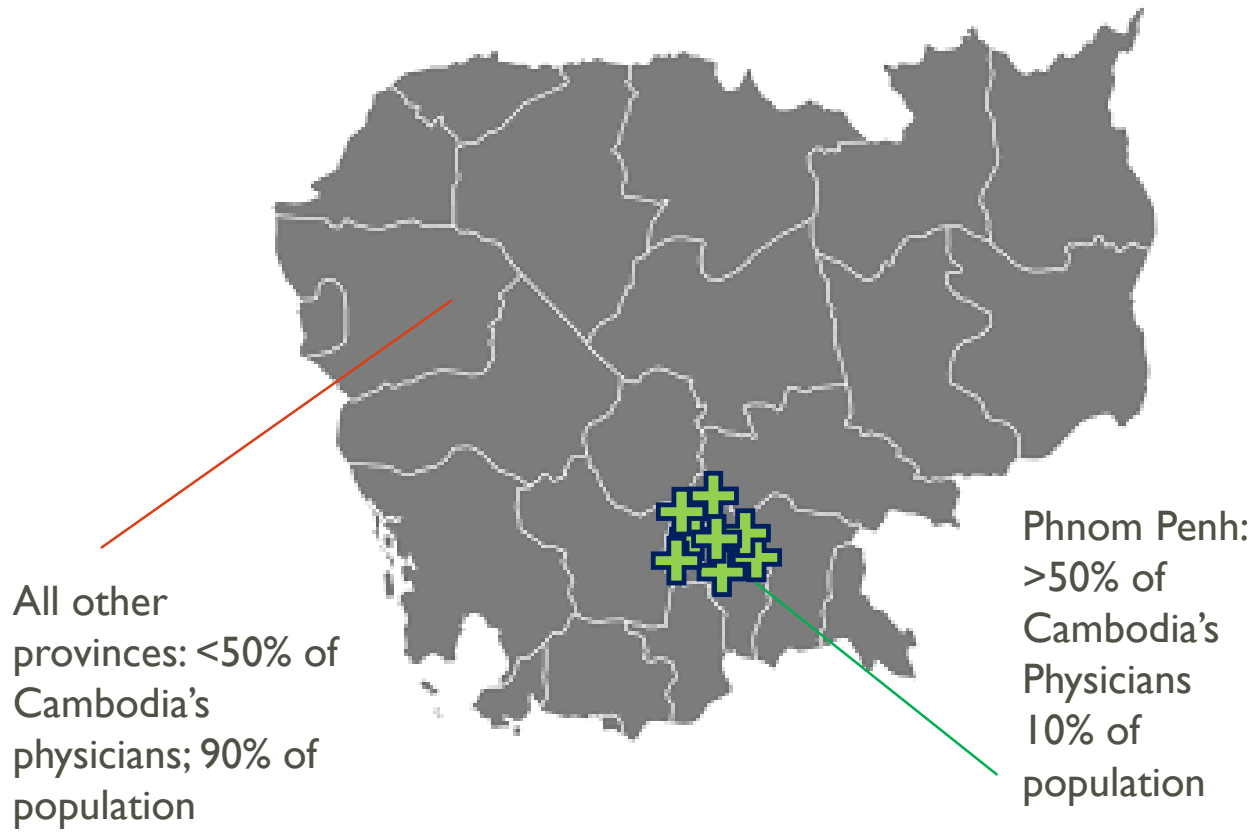
*Life Expectancy at Birth, Total. The World Bank. Feb 2019. Web. 11 Feb 2019 <https://data.worldbank.org/indicator/SP.DYN.LE00.IN?locations=KH>

** 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)*



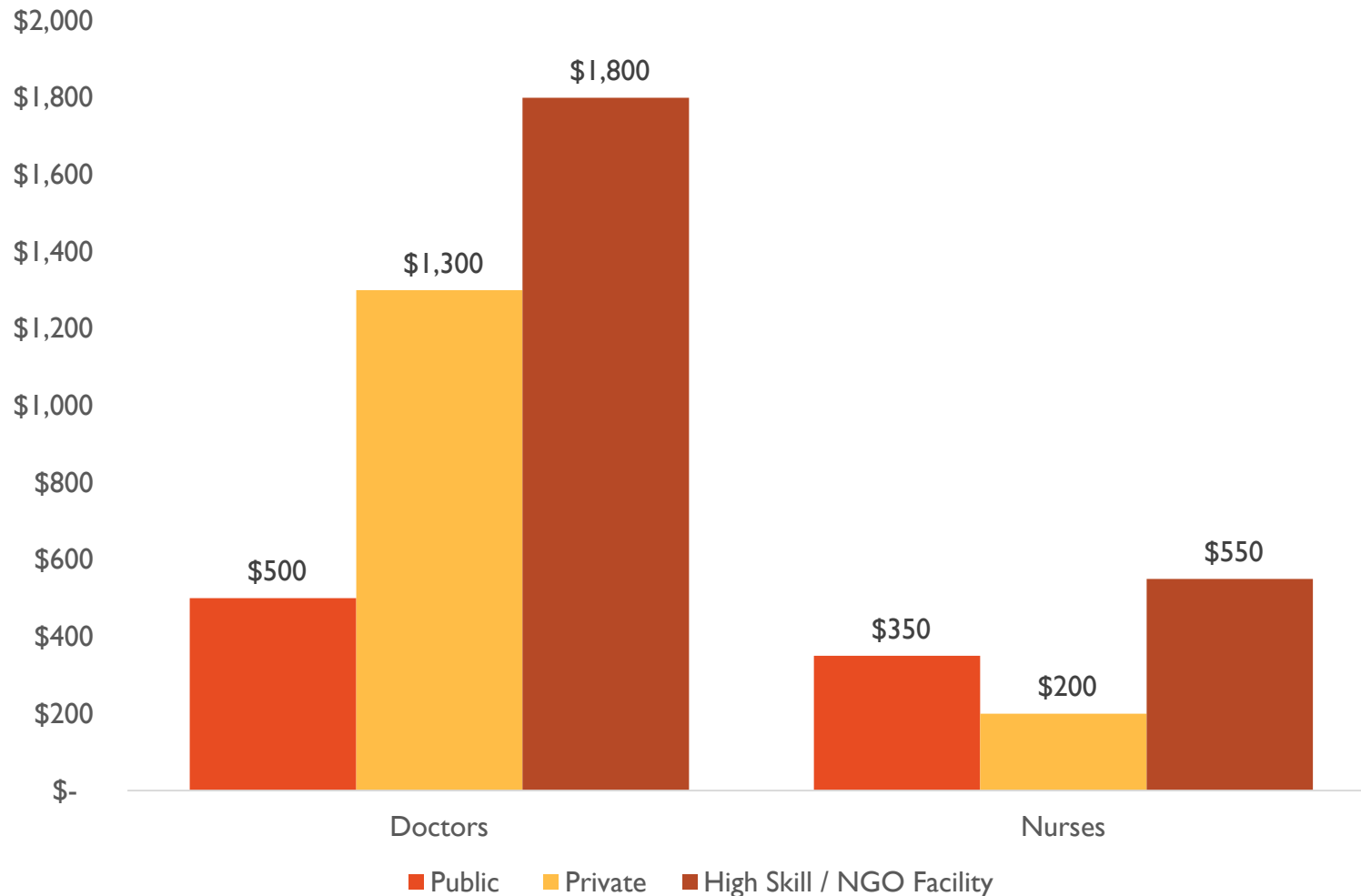
- Much of the Cambodia's medical infrastructure was decimated during the Khmer Rouge regime – it is estimated that only 45 doctors remained in the country in 1979.
- Today the number of physicians in Cambodia remains low, at fewer than two per 10,000 people – in comparison, Thailand has 4.7 physicians 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 much less 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 these facilities have severe nursing shortages and some lack in transparency as to actual salaries.

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

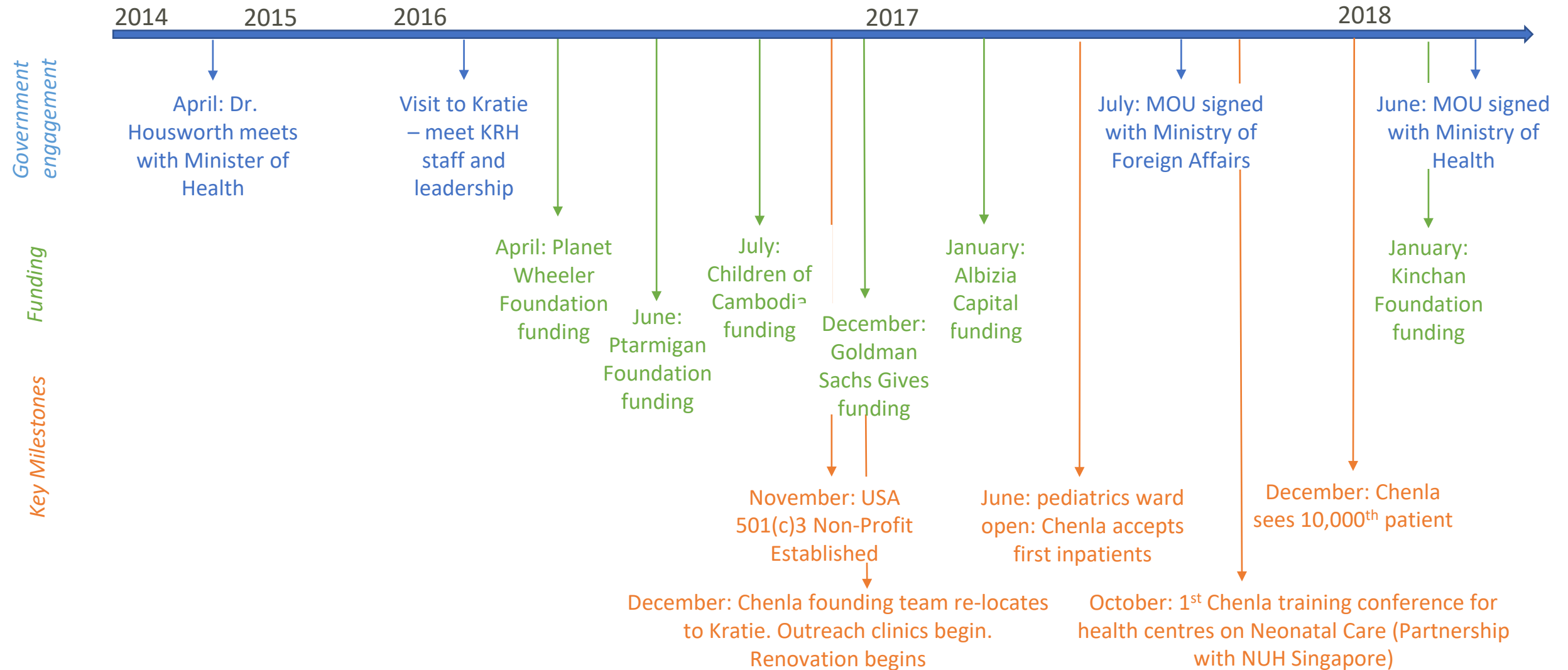
- Basic supplies and medications, and 30% of staff salaries are government-funded
- Health Equity Fund (HEF) covers families unable to pay; fees charged to those who can pay
- Pediatrics care now accounts for 18% of total provincial hospital revenue (up from 2%)



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

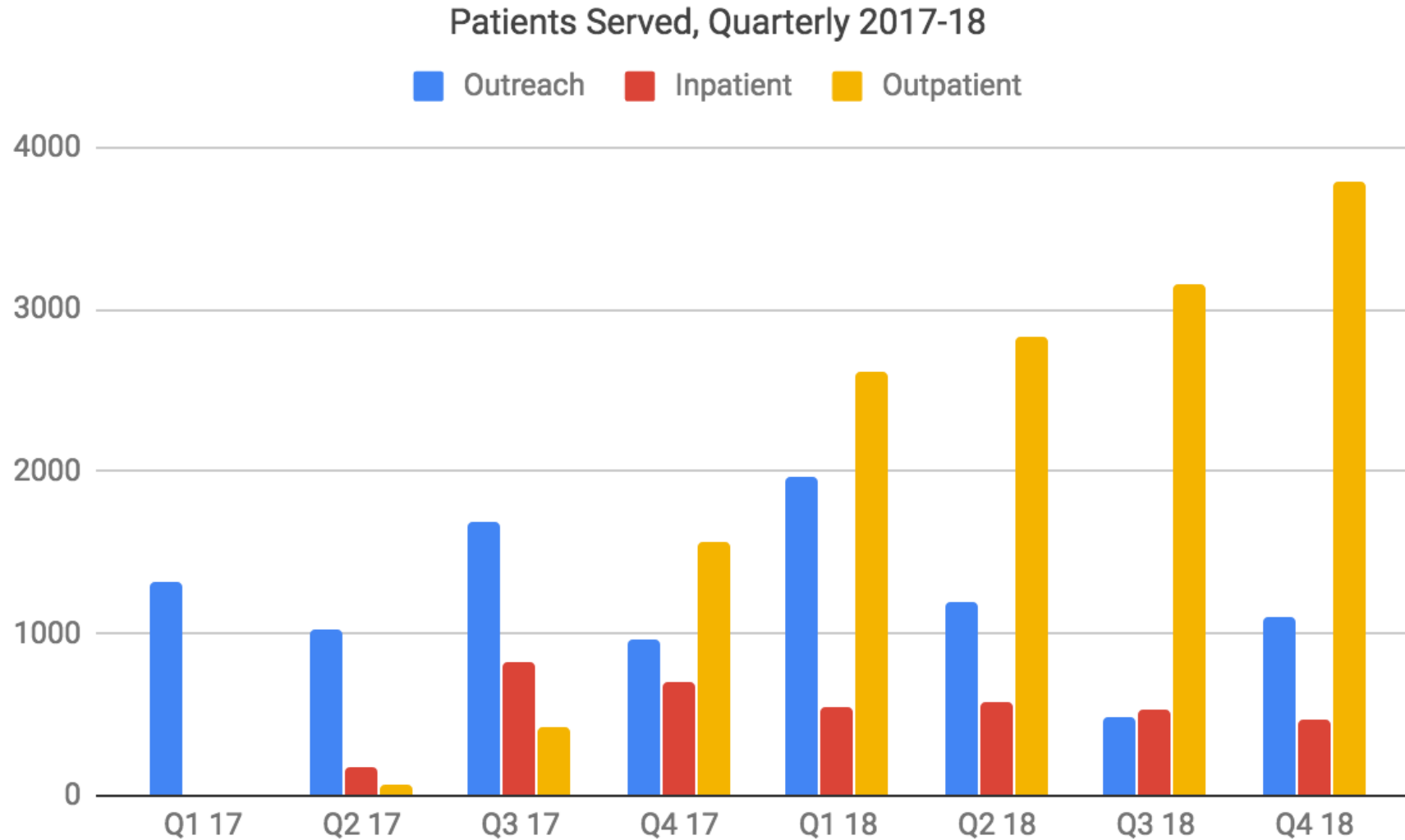
22

Nurses

10

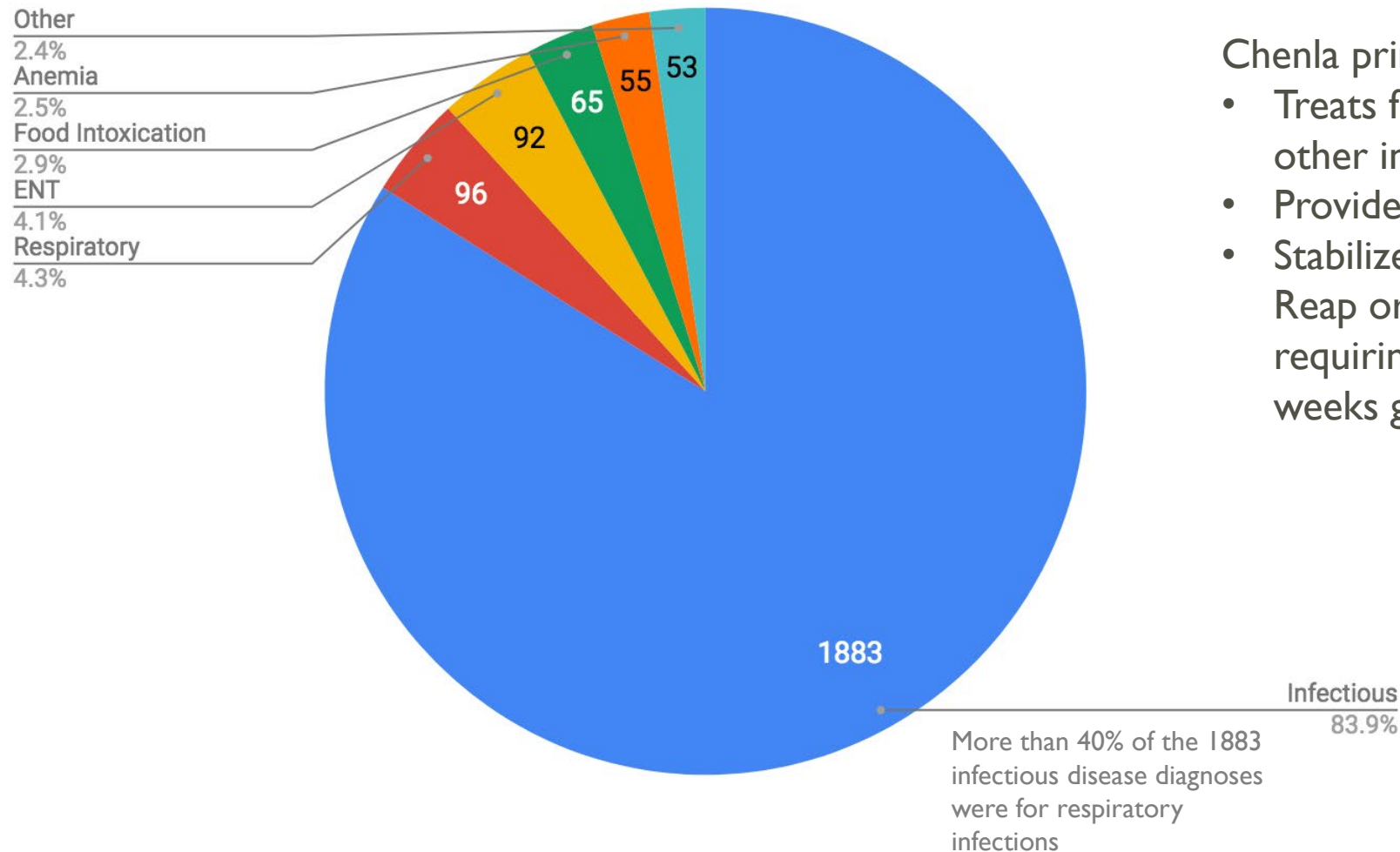
Support staff
(Housekeepers,
Security)

Chenla's Volumes Have Steadily Grown Since Founding



Chenla's Services

Pediatric Discharge Diagnoses 2018

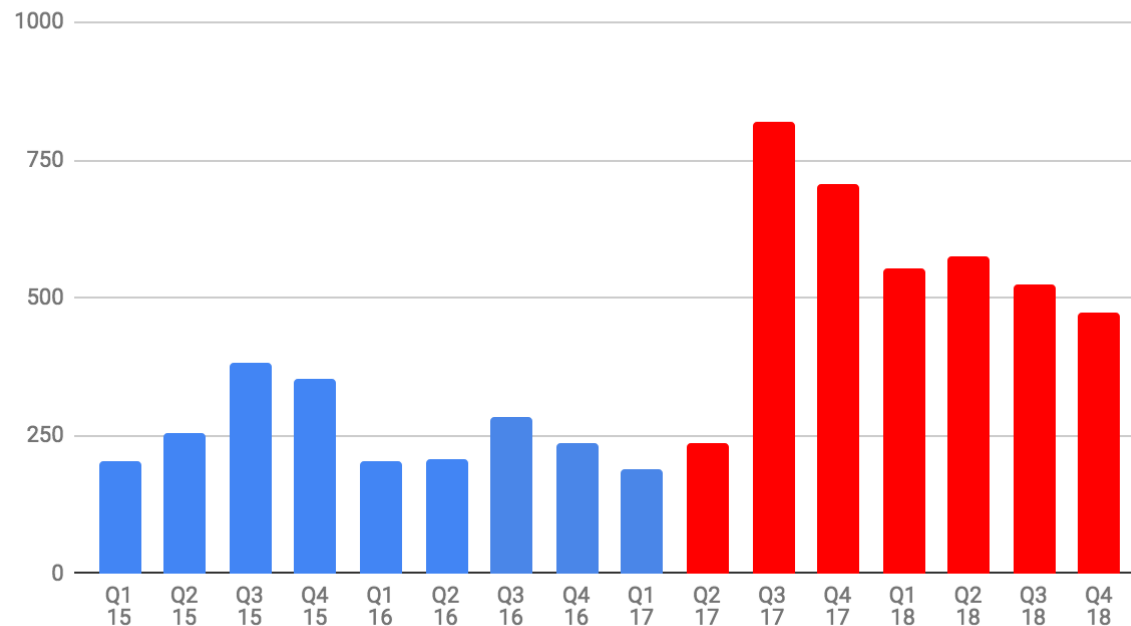


Chenla primarily:

- 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



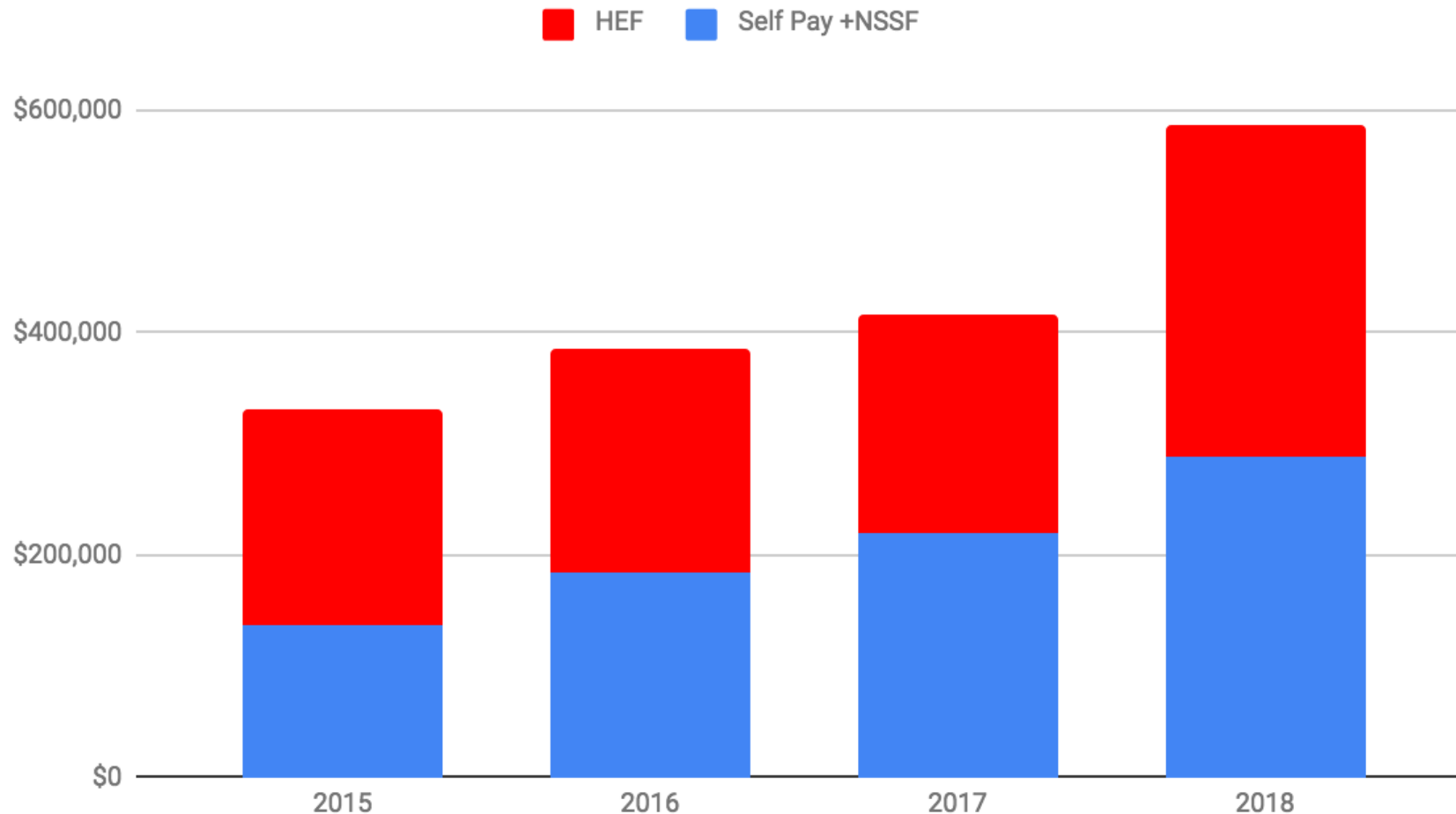
Total Pediatric Patient Admissions 2015-18, Kratie Provincial Hospital

	2015	2016	2017	2018
TOTAL	1,194	930	1,950	2,126
YOY Change	--	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