NOORAHEALTH

Impact Report
2017

Dear Friends,

Five years ago, on our first trip to India, we had no idea what we had gotten ourselves into. Since then, we have grown from a group of four grad students working long hours in a corner of the d.school to an organization of over 50 people still inspired by the families we met on that first trip. In 2017, we reached over 2x the number of people we trained in all of 2016, and more people than all of our previous years combined. This growth is largely thanks to our partnerships with the Governments of Karnataka and Punjab, through which we quickly reached patients and families that need Noora the most.

In 2017, we also expanded our offering to the mother and newborn space. While this is seemingly different from our work in cardiac care, the core concept is the same – with knowledge and skills training delivered in the right way and at the right time, families can play a significant role in their loved ones health and wellbeing. Grandmothers and husbands in India often have the greatest influence over the health of mothers and their newborns in the first few weeks after delivery, but interactions between health providers and these influential family members are limited. Every day we see the power in providing mothers, fathers and grandparents actionable skills training to improve mom and baby's health.

While we are seeing positive outcomes in the areas we care about – complications, readmissions, behavior change – we know we can do better. Our focus in 2018 will be to improve quality of implementation in the most complex settings where patients are most at-risk.

Ever grateful for your support as we power forward,

Edith, Shahed, Katy, Jessie & team

The Problem

Poor quality of care is affecting the most at-risk patients in India

High Burden of Cardiovascular Diseases & Maternal and Newborn Mortality

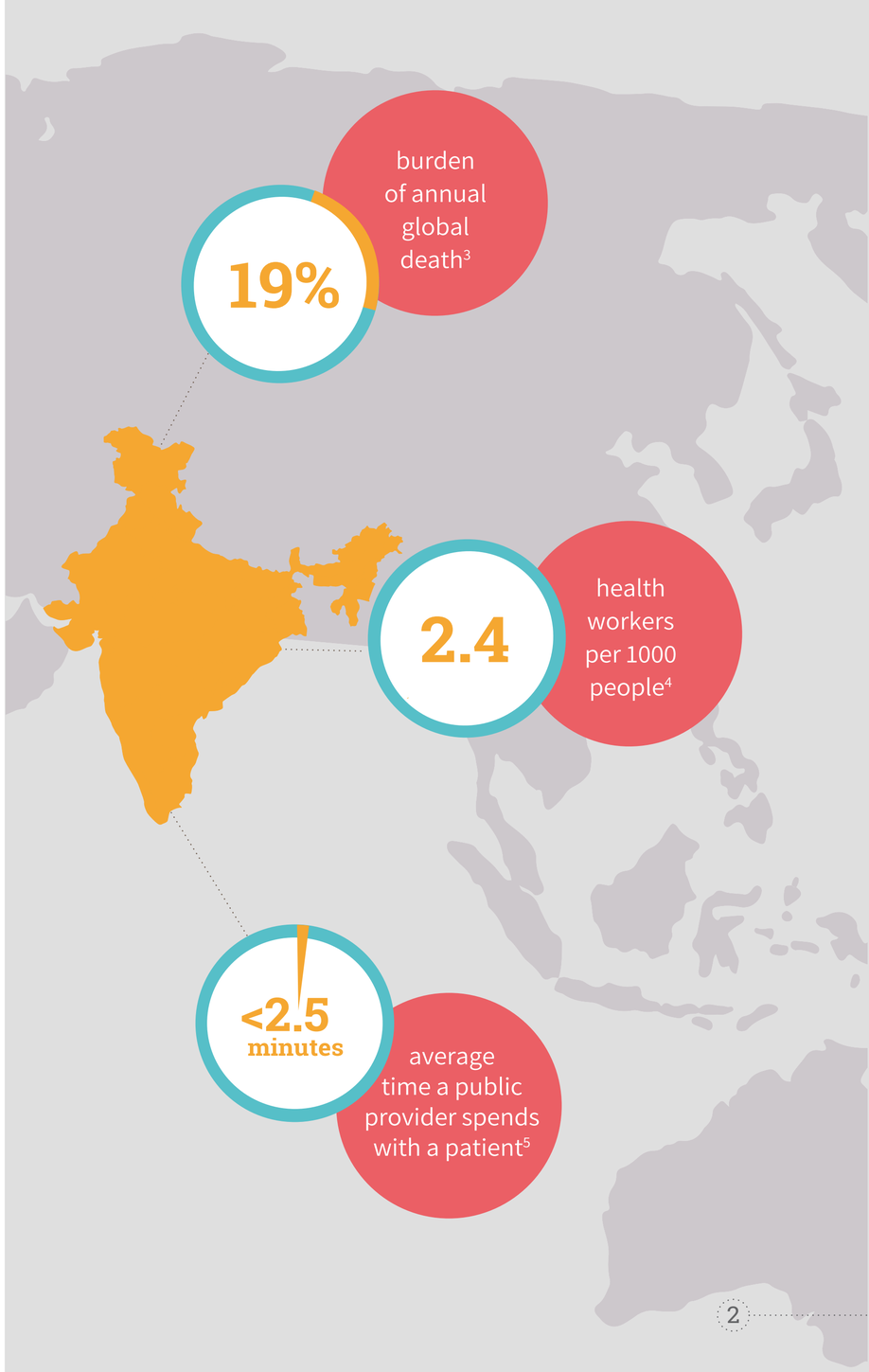
Cardiovascular diseases are now the leading cause of death in India, accounting for 24.8% of all deaths nationally.[1] Moreover, India contributes to 27% of newborn deaths and 16% of maternal deaths globally.[2]

Critical Health Worker Shortages

Due to major health worker shortages, and for cultural reasons, patients come to the hospital accompanied by several family members. The family is charged with taking care of the patient throughout their stay and perform basic tasks like fetching food and medications.

Limited Health Worker-Patient Interactions

Patients and their caregivers in health facilities across India often wait many hours to speak to a health care provider.



References available on page 16

Complications and Deaths are Often Preventable

In India, many complications and deaths could be prevented if families were able to...

Learn the Right Things at the Right Time

The hospital stay is a trigger point where families are motivated to learn and adhere to simple yet impactful skills

Practice Behaviours Before Discharge

Families have time to practice skills in the safety of the hospital where staff can answer questions and alleviate any doubts

Identify Danger Signs

Families are an invaluable resource that can quickly identify warning signs and react accordingly once they know what to expect and look out for

Our mission is to improve outcomes & save lives of at-risk patients

We envision a world where patients and their families are a core component of high-quality healthcare delivery and where family member training has become the standard of care in hospitals around the world. On our path to reaching this goal, we plan to train over 2 million people by the end of 2020 through 300 hospital partners.

Our Solution

Engaging Materials & Resources
We take complicated medical information and turn it into entertaining, culturally relevant video and print in local language

Hospital Staff Training
We upskill existing hospital staff and equip them with tools they need to confidently convey health skills to families

Activate with Education
We turn hospital hallways and waiting rooms into classrooms where family members learn high-impact, hands-on health skills

Hands-On Training
Families practice skills in the safety of the hospital before they return home

Recovery with Confidence
Families return home with confidence and, in turn, anxiety and preventable complications reduce

Meet the Vanivilas Team

Located in the heart of Bangalore, Vanivilas Women and Children's Hospital, part of the Bangalore Medical College & Research Institute (BMCRI), is the largest facility for maternal and newborn care in Karnataka. Dr. Devdas, former Dean of BMCRI, invited Noora to implement the Mother and Newborn program in the hospital, and the program continues to be supported by the Director cum Dean of BMCRI, Dr. S. Sacchidanand. Additionally, the leadership at Vanivilas, including Dr. Geetha Shivamurthy (Medical Superintendent), Dr. Ravinder Nath Maeti (Resident Medical Officer), Dr. Karuna Harsur (former professor of anesthesiology), Ms. Usha Devi (Nursing Superintendent) and their colleagues, are well acquainted with the challenges that patient families and hospital staff face in the maternal and neonatal wards. In 2017, with the support of the team at Vanivilas, we trained over 6,700 mothers and their family members.

Since launching the program, Vanivilas staff have witnessed positive changes in the wards. The nurses have reported a reduction in newborn admissions and deaths to the NICU due to asphyxia, as mothers are now learning proper breastfeeding techniques. During a recent visit, a staff nurse excitedly told us, "the number of surgical site infections and breast abscesses has reduced due to improvements in personal hygiene practices." Another staff nurse shared that, "sometimes after completing a class, patients will come and tell us that we did a wonderful thing, and that they really were not aware of these health behaviours before. This really makes us feel happy."

The team at Vanivilas represents our incredible colleagues at 1 of our 15 government hospital partners.

2017 in Numbers

Growth

12 / 37 12 **new partner facilities** in 2017/ 37 facilities total

12 / 39 12 **new programs** in mother & newborn health launched in 2017/ 39 programs total

125 / 704 125 family health **educators trained** in 2017/ 704 total

79,919 family members trained in 2017

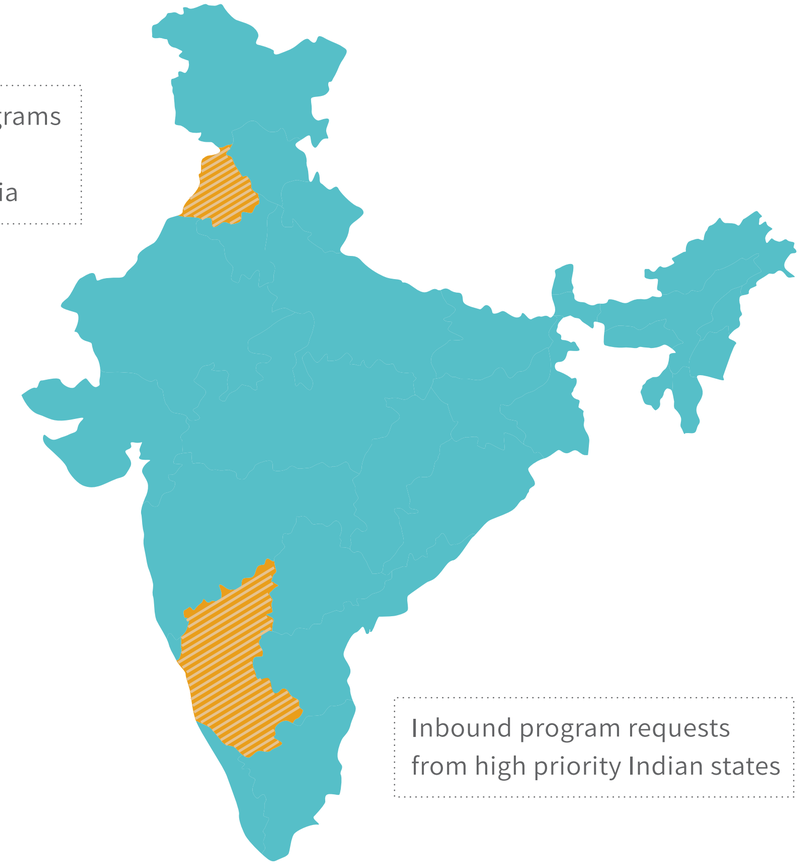
156,794 **family members trained to date**

*This is over 2x family members trained in 2016 (31,275) and more in a single year in than all of our previous years combined (76,875)

15 government hospitals, 2 charity-based hospitals, and 2 private hospital partners

Partnerships

Maternal & Newborn programs launched and poised for scale-up in 2 states in India



Inbound program requests from high priority Indian states

Promising Health Outcomes

Mother & Newborn

37,920 Family members trained till date

42%
decrease in readmissions[6]

16%
decrease in post-discharge infant complications[6]

27%
increase in outpatient healthcare utilization[6]

Cardiac

117,703 Family members trained till date

- 23% reduction in 30-day readmissions[7]
- 71% decrease in post-discharge complications[7]

Oncology

1,171 Family members trained till date

We are in the early stages of testing and refining our oncology program and look forward to sharing our results in future reports

References available on page 16

Meet Rekha

During one of our regular visits to Kolar District Hospital in Karnataka, we met Rekha and her third child, a baby boy. Rekha participated in our mother and newborn program at the hospital and told us that the it helped her learn about proper umbilical cord care and exclusive breastfeeding, both of which were new to her. Rekha anxiously confided to us that in the past she had been advised by her family and neighbours to apply oils and powders to her previous 2 newborns' umbilical stumps. Additionally, although she had been aware of the importance of breastfeeding for the first 6 months and up to a year, she never exclusively breastfed her children after the first month of life. Her mother-in-law would ask her to feed her infants jaggery, sugar water, and other homemade supplements. Rekha told us that this didn't seem unusual to her at the time, as this is a common practice in her community.

"After attending this class, I am now worried that my earlier practices might have had an impact on my children, and maybe that's why they fell sick often," Rekha told us. "This time I will make sure that I do everything right for this baby so that he doesn't face any issues."

Rekha is one of 37,670 people trained in our maternal and newborn program in 2017.

2017 Highlights

State Rollouts

In just one year the mother and newborn program has been rolled out to a total of 12 new hospitals, including 11 district hospitals across Karnataka and Punjab and Vanivilas Hospital in Bangalore. The program has received enthusiastic response from our partners, and we look forward to scaling across Karnataka and Punjab in 2018.

Strengthening our M&E System

We achieved exciting progress in strengthening the way we monitor and evaluate our work. Notably, we completed baseline studies in both Karnataka and Punjab to help us assess the progress and effectiveness of our implementation. We also embarked on a collaboration with IDInsight to strengthen the way we monitor our impact on health outcomes.

Piloting New Service Models

We looked at our monitoring data to think about how to enhance our implementation strategy in hospitals. For the purposes of learning, as well as reaching more at-risk patients faster and more effectively, we hired two new Training Coordinators to serve as in-hospital resources at three of our partnering facilities in Karnataka. Our Training Coordinators have helped us experiment with different education materials and class formats to improve quality and impact.

Challenges & How to Help

Maintain Quality at Scale

We have grown quickly, and with that comes a level of sacrifice when it comes to quality of service delivery. Leveraging various tech tools and strengthening our M&E to identify struggling and/or A+ locations to support our trainers and families is critical. Are you interested in helping us build these tools?

Identifying the Right Trainers & Educators

This year, we were able to train at least 36% of the families who sought care at our partnering government hospitals. This is a huge achievement, but our target is closer to 70%. We can achieve this when we place our own trainer in a facility, but there are tradeoffs. We are eager to speak to nurse training and/or train-the-trainer model experts, preferably those who have worked in the Indian setting.

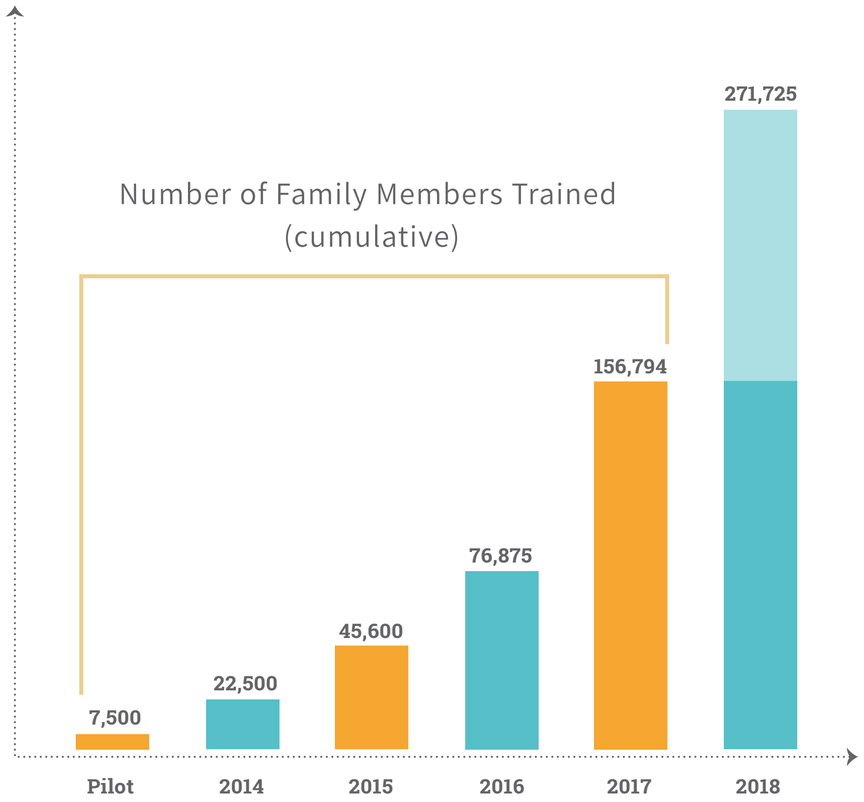
Identifying the Most Impactful Teaching Methods & Tools

We know there is scope to improve the way we deliver medical content to patient families beyond our “classroom” model. We have been piloting tools to drive impact beyond the session like WhatsApp video messages, IVR and remote training. Are you a qualitative or design research expert with strong data skills? Do you have experience working on innovative approaches to education with at-risk populations?

Reach out to us at founders@noorahealth.org if you can help!

Our Goals for 2018

Reach More Families, Faster



Our goal is to reach over a quarter of a million people by the end of 2018

271,725

Increase Engagement with Patient Families

In 2018 we intend to:

- Expand to all remaining District Hospitals in Karnataka and Punjab
- Launch our Mother & Newborn Program in 6 additional District Hospitals in 1 new state in India
- Expand the program across condition areas to reach 70% of patients in District Hospitals
- Harness popular mobile technologies to strengthen our in hospital training and to reach patient families beyond hospital settings

Press

Fast Company

We are honored to be recognized again by Fast Company, this time as 4th Most Innovative Company in India for 2017.

goo.gl/rgRw6h

Social Innovation in Health Initiative Partners

Noora is featured in a publication about social innovations that are addressing health challenges in low- and middle-income countries

goo.gl/qCwrFn

Results for Development

R4D highlighted Noora on their blog as a successful example of how investing in young business ventures can drive social change

goo.gl/Ez2Q8d

Thank You

To our supporters, past and present, it's an honour to have you by our side.

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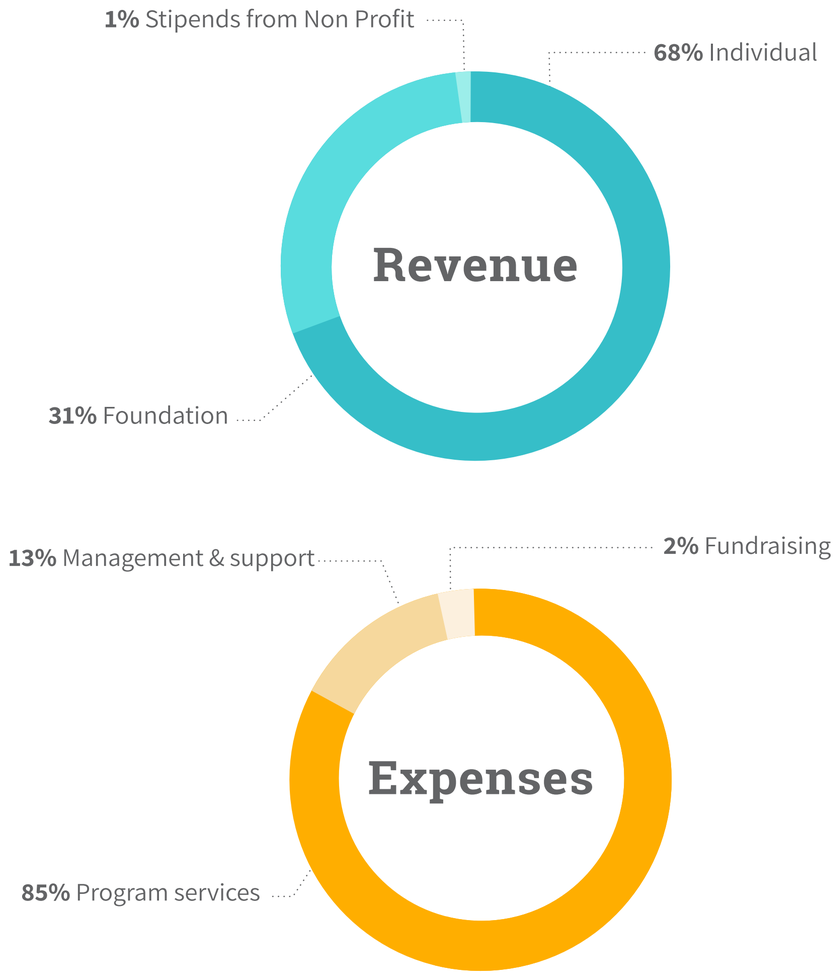
Financials

Donations	
Foundation	686,244
Corporate	250
Individual	1,505,328
Stipends from Non-Profits	22,500
Total	2,214,322
Expenses	
Personnel Expenses	247,639
Professional Fees	102,978
Program Expenses	617,813
Travel and Meetings	91,248
Office Expenses	15,546
Occupancy	29,340
Other Admin Expenses	40,766
Total	1,145,329
Net income	
Total	1,068,993

Assets	
Current Assets	2,732,012
Other Assets	5,203
Total	2,737,215
Liabilities	
Current Liabilities	99,826
Other Liabilities	-
Total	99,826
Net Assets	
Unrestricted	2,637,389
Temporary Restricted	-
Total	2,637,389
Total Liabilities and Net Assets	
Total	2,737,215

*all figures in USD



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3 Global Burden of Disease 2013 Mortality and Causes of Deaths Collaborators. (2015). Global, regional, and national age-specific all-cause and cause-specific mortality for 240 cases of death, 1990-2013: a systematic analysis for the Global Burden of Disease Study 2013. Lancet, 385: 117-71. http://www.thelancet.com/journals/lancet/article/PIIS0140-6736(14)61682-2/abstract

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5 Das, J., Holla, A., Mophal, A., Muralidharan, K. (July 2015). Quality and Accountability in Healthcare Delivery: Audit-Study Evidence from Primary Care Providers in India. http://documents.worldbank.org/curated/en/959771468000899235/pdf/WPS7334.pdf

6 Findings reflect a comparison of health outcomes in 11 district hospital facilities pre and post-launch. All regressions are OLS. Controls include patient age, education, sex of the baby, and hospital fixed NICU admission, mother gravida, low birth weight, early term effects. Given the small number of clusters (hospitals), standard errors are estimated using wild bootstrapping. Sample size consists of 5,053 mothers and baby dyads. Readmissions found to be decreased from 4.7% to 2.2% ($p = .01$, $N = 5049$); families self-reporting baby complications found to be lowered from 37.5% to 30.6% ($p = 0.04$, $N = 5049$); and proportion of families reporting going to see a healthcare provider post-discharge increased from 15% to 19% ($p = .01$, $N = 4900$).

7 Data collected in a Stanford pre-post study at a 550 bedded hospital and from follow-up phone calls to patients and caregivers post-discharge (N=188)

Thank you!