“More than 100,000 women die in India every year from pregnancy related causes and an equal number suffer moderate to severe morbidities. The high level of maternal mortality is distressing because the majority of these deaths can be averted with proper maternal care or effective referral. In terms of its impact, poor health has repercussions not only for the woman but also for her entire family. Understanding the centrality of a woman's health to her household’s well-being and also supporting the household to care for their children is the essence of LifeSpring’s work.”

—Anant Kumar, Founder

**LifeSpring**

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<tr>
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<td><strong>Target Population</strong></td>
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<td>Pregnant women</td>
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<td></td>
<td>Infants and young children, ages 0 to 4</td>
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<td></td>
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<tr>
<td><strong>Geographical Reach</strong></td>
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<td></td>
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<tr>
<td><strong>Website</strong></td>
<td><a href="http://www.lifespring.in">www.lifespring.in</a></td>
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Description of Innovation

LifeSpring Hospitals (LifeSpring) is an expanding chain of maternity hospitals that provides high-quality health care to lower-income women and children in peri-urban India. Maternal services in India are typically either high-cost high-quality private care or free/low-cost public care in outdated facilities with substandard quality. Private care options are priced out of reach for most low-income families, leaving a gap in access to quality maternal care. LifeSpring aims to fill this gap by providing private-care quality at a vastly reduced cost.

LifeSpring’s innovative combination of service specialization, evidence-based clinical protocols, high asset utilization, ‘no frills’ approach, and customer focus make low-cost, high-quality maternal and health care services a real option for lower-income women and children in India.

Launched in 2005 with a hospital in the Moula Ali suburb of Hyderabad, in the state of Andhra Pradesh, LifeSpring currently operates 12 (20 to 25 bed) hospitals using 32 doctors and 120 nurses in Hyderabad, Andhra Pradesh and holds 43% of the market share at its flagship hospital. Each year LifeSpring hospitals see approximately 35,000 pregnant women. As of July 2013, LifeSpring has delivered 23,000 healthy babies across all of its hospitals and has created medical records for over 100,000 low-income pregnant women. LifeSpring plans to continue expanding, moving in to additional states over the next five years.

The Iron Triangle of Health Care

LifeSpring increases **access** to health care by strategically establishing facilities near the homes of their target population and providing 24/7 availability of inpatient obstetric services.

A focus on clinical process and adherence to clinical protocols ensure high **quality** care leading to safer deliveries; standards are audited by US-based obstetricians.

LifeSpring provides care at between 1/3 and 1/5 the **cost** of competing neighborhood providers through service specialization and a right-skilled, properly incentivized workforce.
Providing Value to the Patient, Community, and Health System

LifeSpring identified a demand among low-income Indian women for affordable, quality, maternal care, a rarity in India’s current healthcare system. Many women opt to deliver at home, with only 43% of deliveries attended by a skilled health professional. Those seeking a health facility often must choose between low-quality, out-of-date government hospitals or expensive, loosely regulated private clinics. In-depth market research found that families were taking out loans and selling assets in order to afford delivery at a private hospital. This demonstrated to LifeSpring that consumer demand for a non-government option existed.

LifeSpring developed a model that provides the high quality of care patients wanted for a third to a fifth of the cost of competing private hospitals. LifeSpring measures their quality of care with a set of metrics, including caesarian section rate, protocol compliance rate, infection rate and referral rate.

Outreach and community initiatives ensure that the target population is aware of how LifeSpring hospitals can meet their needs. Local outreach staff use family information and medical histories to target potential customers as well as those who influence a woman’s decision about where to deliver, such as the mother-in-law and husband. LifeSpring also conducts health camps, which bring doctors into the community to provide health advice. Vaccination programs and LifeSpring’s voucher program also raise awareness for LifeSpring, as well as bring new customers into the hospital. Vouchers offer free and discounted service at the hospital’s outpatient and inpatient departments respectively, encouraging word-of-mouth referrals among community members.

LifeSpring hospitals have benefited the public health system and positively influenced the quality of care and capacity within the community health system as a whole. LifeSpring hospitals have reduced the burden on overcrowded public health providers allowing these providers to function more effectively. Since the establishment of LifeSpring, the quality of care among neighborhood providers has improved, neighborhood providers have lowered their prices and more nurses are being trained to deliver protocol-based maternity care.

Health System and Policy Context

India has one of the most privatized healthcare systems in the world. Public healthcare services are available with income-based subsidies and free services for the poorest households. However, public healthcare services remain unpopular, characterized by long waiting times, insufficient stock of free and
subsidized pharmaceuticals, and substandard facilities and care. While the vast majority of people in India choose to seek private healthcare options, which include state of the art medical facilities and world-class doctors, the high cost limits access for lower-income populations. In addition, the private sector is loosely regulated, leading to many cases of abuse and fraud.

Healthcare expenditure in India is about 6% of the total GDP and approximately 80% of this spending is in the private sector. Chronic underfunding of healthcare expenditures by the government and the high cost associated with private healthcare options limit access to quality care, especially for the poor. Low rates of health insurance coverage further compound the problem. Although some form of health protection is provided by government and major private employers, health insurance schemes for the Indian public are generally basic, costly, and not widely available. Nearly all (98%) of private sector health expenditures are paid out-of-pocket by patients; an estimated 20 million people in India to fall below the poverty line every year due to health-related expenses. Recently, successful public-private partnerships with insurance schemes are slowly increasing the availability of insurance.

Healthcare services and healthcare workers are concentrated in urban areas, where financial return for private-sector providers is the highest. LifeSpring discovered they could hire auxiliary nurse midwives (ANM), trained primarily in maternal care and less expensive than more broadly trained general nurse midwives (GNMs). There is low demand for ANMs and their specific skill set, outside of the government positions for which ANMs are typically trained. ANMs have equivalent skills in the area of maternal care as GNMs and specialization in maternal care has enabled LifeSpring to identify ANMs as a valuable source of human capital.

Indian health system priorities have posed challenges for LifeSpring as they push to expand their services. The health system does not yet advocate for monthly antenatal check-ups, meaning that LifeSpring must invest in outreach campaigns to motivate women to receive antenatal care services. Additionally, hospitals are not treated as a priority sector for receiving loans at a low interest rates, increasing the cost of capital for LifeSpring. Identification of physical infrastructure where hospitals can be housed has been difficult, especially when trying to locate the facility close to where the working poor live. Similarly, locating infrastructure for adequate communication facilities has been a challenge.

“I believe that something powerful happens when you empower low-income women to behave as customers. The first time doctors come into our hospital, we train them to talk about ‘customers’ instead of ‘patients’ and they may get it right one out of ten times. After some time with us, the number jumps up to six out of ten times, and we want it to keep improving.

It really means a lot for a doctor, who is educated and from at least a middle-class background, to treat low-income people with this kind of respect. It is this respect to people regardless of income and extrinsic determinants that is the ethos of LifeSpring.”

Anant Kumar, Founder
Operating Model

LifeSpring’s operating model is based on specialization and standardization of healthcare delivery processes. Specializing in a high-incidence service creates an opportunity to lower costs and increase productivity of doctors and nurses. Implementation of standardized clinical protocols across hospitals and clinics strengthens clarity of tasks, also resulting in higher productivity.

LifeSpring partnered with the Indian School for Business (ISB) to develop an optimization model for resources, focused on providing “the right services at the right time at the right place.” In addition, LifeSpring worked with the Institute for Healthcare Improvement to develop clinical protocols for delivery. Standardized processes and protocols are designed to be easily replicated at new locations, enhancing LifeSpring’s ability to scale.

Doctors are one of LifeSpring’s most expensive and most utilized assets. LifeSpring leverages their skills by relieving them of the administrative duties common to a private clinic setting while also offering a more desirable work environment than a public hospital. LifeSpring doctors are paid a low fixed salary and a high-volume-linked pay, giving LifeSpring the benefits of making the highest cost variable, based on patient volume. In addition, LifeSpring provides the doctors with a workplace where they can treat based on their professional judgment without undue stress of financial returns. These non-monetary incentives often trump any financial advantage of running a private clinic. As discussed above, LifeSpring also hires ANMs, who have a specialized skill set in maternal care but are less expensive than more broadly trained GNMIs. Through right-skilling of both doctors and nurses, LifeSpring is able to lower workforce costs while also ensuring productivity and creating a positive workplace.

LifeSpring also reduces costs by providing a no-frills environment for patients. Their focus is on increased scale and quality of services. The environment is intentionally simple and lacks the added comforts of most private-sector maternal care sites. While most beds are in the general ward, patients do have the option to upgrade to a private room for an additional fee. The tiered room system allows LifeSpring to cater to a broader population while providing the same quality of care to all patients. Despite the no-frills approach, LifeSpring takes steps to ensure privacy even in the general ward. Moreover, only female doctors provide the antenatal and postnatal services to ensure increased patient comfort.

The operating model depends on high patient throughput, which is achieved by targeted marketing via multiple channels. LifeSpring leverages local knowledge, community connections, word-of-mouth patient referrals, and proximity to urban slums as a means of increasing awareness of the services offered. LifeSpring’s
outreach staff of 3 to 4 local women creates a marketing force that is trusted by potential patients in the field. LifeSpring further increases patient throughput from underserved communities by providing low-cost outpatient services in close proximity to urban slums.

In addition to providing healthcare services, LifeSpring uses patient education to change the health-seeking behaviors of pregnant women and their families, focusing on topics such as importance of regular antenatal check ups, adhering to prescriptions, nutritional requirements during pregnancy, symptoms that should be immediately reported to a health professional, and the importance of breastfeeding. Regular gatherings of pregnant women are organized to celebrate days like Women's Day and Mothers' Day, providing another opportunity to spread health messages. This strengthens the relationships between the service providers and their patients. Through such efforts, LifeSpring increased the average number of antenatal check up visits (among those who delivered at a LifeSpring Hospital) from 2.5 in 2008 to over 7 in 2013.

LifeSpring leverages existing infrastructure by renting old hospitals on a long lease rather than owning their buildings. This limits capital expenditure allowing LifeSpring to concentrate on providing quality service. LifeSpring assesses the market before deciding to launch a new hospital or enter a new community. LifeSpring looks at the number of women in the target population, the presence or absence of competitors in the community and their prices for service, as well as the availability of infrastructure and human capital.

Business Model

LifeSpring is a profitable enterprise and generates revenue using a fee-for-service model. Prices for services at LifeSpring are one-third the cost of other private clinics and their transparent all-inclusive pricing mechanisms highlight the value. Public health care services are supposed to be free; however, due to a lack of available medicines and the expectation to still pay in part for services, patients incur out-of-pocket expenses equaling approximately Rs. 2,000 ($45 USD), which can vary by sex of the child and does not include follow-up treatment for possible infections. In-depth market research indicates a strong demand for higher-quality services and LifeSpring provides these services at a comparably low-cost. Payments are collected at admission or shortly after to ensure a high rate of payment in full. Tiered pricing is used in cases of extremely poor patients and these agreements are made at the time of admission.

As previously noted, LifeSpring utilizes a tiered room system. Most beds are located in the general ward, where normal delivery costs Rs. 5,000 ($90 USD),
but patients can also choose a private room, which costs Rs. 8,000 ($145 USD). While quality remains the same, the tiered room system allows LifeSpring to cater to a wide target population and generate additional revenue.

By providing healthcare services in gynecology, obstetrics and pediatrics, LifeSpring is able to cross-sell among patients seeking care in multiple areas. Through provision of these additional services as well as physician services and color Doppler services in diagnostics, LifeSpring is working to establish additional revenue streams.

The first LifeSpring Hospital was established with funds from HLL LifeCare (formerly Hindustan Latex) a government-owned healthcare products manufacturing company. Later, Acumen Fund and HLL LifeCare each contributed 50% of the equity to create LifeSpring Hospitals Pvt Ltd. Both HLL LifeCare and Acumen fund have continued to contribute capital at regular intervals to support expansion. LifeSpring Hospitals has also obtained capital from bank loans.

Hospitals typically break even within the first two years, when they reach about 40 deliveries per month.

Impact Metrics

Quality

- Infection rate (currently at 0.01%)
- Maternal mortality rate (currently at 0%)
- Caesarian section rate
- Percentage of babies born with low birth weight

User satisfaction

- Outpatient to inpatient conversion
- Average number of antenatal visits per pregnant woman at LifeSpring Hospitals

Cost and sustainability

- Contribution per service (price of the service minus variable costs)
- Proportion of doctors time used
- Percentage of customers from target communities
- Number of new pregnant women identified in the community
- Number of new pregnant women registered at hospitals
- Percentage of pregnant women registering in the first trimester.
Goals for Scaling and Replication

1. Develop a process- and protocol-focused delivery model that enables new doctors and nurses to provide high-quality healthcare

2. Deepening engagement with existing customers in the following areas:
   - Pediatric follow-up for immunization and pediatric health monitoring
   - Introduce gynecological services for women and general physician services to care for women before and after pregnancy
   - Expand diagnostic services by including color Doppler and ultrasound technology at all hospitals
   - Establish NICU and ICU facilities at centrally located hospitals

3. Increase size of hospitals where existing occupancy is more than 70%

4. Opening new hospital clusters in additional cities

5. Partner with busy government hospitals to provide additional maternity ward capacity

External Support Required for Scaling and Replication

1. Access to smart capital

2. Introduction to cost saving and/or low-cost technologies being developed elsewhere in the world that can benefit maternity care

3. Development of training aids and modules to quickly train new nurses in protocol-based maternity and pediatric healthcare delivery

4. Access to potential investors to support initial outreach initiatives at newly established hospitals that aim to improve health seeking behaviors in the community and impact assessment

5. Support capacity building of management staff through interactions with hospital management teams in the US, Europe or Africa

Selected Media Attention and Awards

Press

Forbes India Magazine (August 8, 2012). LifeSpring hospitals save mothers and newborns using a low cost model.

The Economist (June 2, 2012). Squeezing out the doctor: The role of physicians at the center of health care is under pressure.
http://www.economist.com/node/21556227

The Economist (June 16, 2011). Saving Britain’s Health Service: The NHS needs to learn from innovations in the rest of the world.
http://www.economist.com/node/18833589

The Economist (April 16, 2009). Lessons from a frugal innovator: The rich world’s bloated healthcare systems can learn from India’s entrepreneurs.
http://www.economist.com/node/13496367?story_id=13496367

ABC News. LifeSpring Hospitals Keep Infants Alive: Jacqueline Novogratz, CEO of Acumen Fund, on fighting infant mortality in India.
http://saveone.net/LifeSpring-Hospitals-Keep-Infants-Alive-Jacqueline-Novogratz-CEO-of

Harvard Business Review (March 2011). Is the Bottom of the Pyramid Really for You?
http://hbr.org/2011/03/the-globe-is-the-bottom-of-the-pyramid-really-for-you/ar/1

BBC World Service Business Daily (March 6, 2013) The Healthcare Timebomb
http://www.bbc.co.uk/programmes/p015217z

**Awards**

*Business Call to Action, commitment member*

*Clinton Global Initiative, commitment member*

*World Business and Development Award, 2010*

*Schwab Foundation, Social Entrepreneur of the Year, 2010 Finalist*

*IDC Enterprise Innovation Award, 2011*

*United Business Media’s Edge Award*

*Frost & Sullivan’s Mother and Child Healthcare Provider of the Year, 2010*

*ET Now Leap of Faith award, 2011*

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LifeSpring provided the source data for this document and is responsible for the accuracy of the content.