The *Yy* Model:
Improving Access and Equity in Healthcare Delivery in India

Executive Summary

The Problem: In many developing nations, access to healthcare services and means to finance delivery of care are often disconnected.

The Solution: Create a network of private and public healthcare providers and connect them to payment mechanisms that are affordable to various income classes, including the BOP; focus on quality; and meet community health needs beyond acute medical care.

The global donor community is currently spending over $12 billion annually on health in developing countries. Yet the world's health remains in dire straits, with millions dying every year from treatable and preventable diseases. International health funding is often focused on specific diseases or conditions rather than strengthening the overall health infrastructure of a country or region. The *Yy* Model aims to solve this problem by strengthening overall systems that will act as a platform for better delivery of specific disease interventions such as AIDS, TB and avian flu and malaria. A more efficient delivery model, jumpstarted by the donor community, would improve not only the plight of those without access to quality healthcare but also improve overall aid effectiveness.

The Government of India has made provision of universal healthcare one of its key priorities. Yet with a 70% rural population—over 700,000,000 people—the majority of which is at or below the poverty line, the Indian Government and others have not yet been able to provide adequate and affordable healthcare to a significant portion of its citizens. The Indian public healthcare system is riddled with challenges that keep even the poor from using the system. Most of the poor pay out-of-pocket for access to privately provided healthcare which is often overpriced and of dubious quality.

India is somewhat unique in developing markets in that its problem is not the lack of healthcare availability; rather it is quality, access and affordability. Since 1999, the insurance industry has begun providing some limited health insurance products, but to date has covered less than two percent of the Indian population. Combined with the low public spending on health, most of the financial burden of illness falls on individuals. According to the 2006 MacArthur Foundation study on Indian government's health expenditure, India tops the global chart in out-of-pocket spending on healthcare. This trend has put a disproportionate burden for healthcare on the poor in particular. Healthcare costs are the most common cause of impoverishment in India today.

XX is a 501©(3) charity established by U.S.-based entrepreneurs dedicated to solving tough global social issues by harnessing the efficiencies of the private sector. XX seeks to address the current fundamental disconnect in the Indian healthcare delivery system between available services and the lack of financing to access them. We propose a cross-sector partnership of international/national insurers, third party administrators (TPAs), community-based micro insurance providers, private and public providers and others to create a model of healthcare provision that is efficient, financially sustainable, scalable, and accessible to many with varying abilities to pay. After discussions with leading experts at World Bank, IFC, and other implementing firms to refine thinking on design of services and financial products, we have named this model, *Yy*.

We are proposing to pilot the *Yy* concept in Andhra Pradesh, India. Our long-term intent, however, is much broader: to create a scalable healthcare delivery system that can be used throughout India and ultimately replicated in other developing countries. While there is strong national interest in India in providing better healthcare, with the risk of destabilized populations and rapid spread of disease, it is also in the interest of the developed countries and international donors to ensure the wellbeing of the largest numbers of people as efficiently as possible.

XX's mission is to bring high quality health services to the poor through the use of sustainable business models. *Yy*, Latin for .., is a fitting name for the model's cross-sector partnership concept.

The Need

Several internal and external factors are merging to create "a perfect storm" in India where high quality, technologically advanced health treatment is available to those who can afford to pay for it, yet the most routine and preventive services are out of reach of the majority of the population. These factors include:

- *Historically low government expenditure on healthcare*, averaging less than one percent of the GDP (by comparison, the U.S. spends 14% of its GDP on health).
  - Even the small amount of money being invested in the public health system is largely wasted as the system is corrupt and offers a minimal standard of care. Patients avoid this public system and seek treatment from private providers, often leading to debt or bankruptcy for the family.
  - Silo-ed, disease specific treatment programs are inefficient in their duplication of infrastructure. These programs are difficult for the healthcare consumer to navigate and only intervene for specific medical conditions rather than focus on primary care and prevention.

- *Shift from infectious to more costly chronic conditions such as diabetes, asthma and heart disease*.

- *Lack of financing mechanisms to make care affordable*. Health insurance, whether provided by the Indian government, employers or non-profit networks, covers less than two percent of the population and is typically targeted to upper and middle class urban clients. Over 82% of the GDP spent on healthcare is borne by individuals (by comparison, this figure is 20% in developed countries).

- *Inefficient and unsustainable delivery processes*. The lack of managed healthcare makes insurance programs costly and inefficient to operate. Each individual insurance program operator is managing its own claims processing, patient uptake, fraud prevention and healthcare provider network creation, as well as spending countless hours and monies trying to educate clients on insurance with little coherence in messaging.

- *Lack of incentives for providing quality care*. Since the link between health insurance and service provision is so limited, there is a corresponding lack of focus on the quality and consistency of care that is being provided.

The result is a fragmented system that impedes the effective delivery, distribution, and financing of healthcare. This exacts a tragic human toll. According to a 2001 World Bank study, one-quarter of all hospitalized Indians fell below the poverty line as a direct result of the related medical expenses of this single event. It does not only take a catastrophic event to impoverish a household: the same study found a similar devastating effect when a household bore the aggregate cost of multiple, less severe illnesses. Rural households are worse off because of the relative paucity of any publicly provided treatment. A 2004 Andhra Pradesh Government report found that health expenditures had been significant in causing or increasing the indebtedness of farmers, which in turn was a proximate cause of farmers' suicides. The data suggests that an effective healthcare system is therefore an urgent anti-poverty measure.

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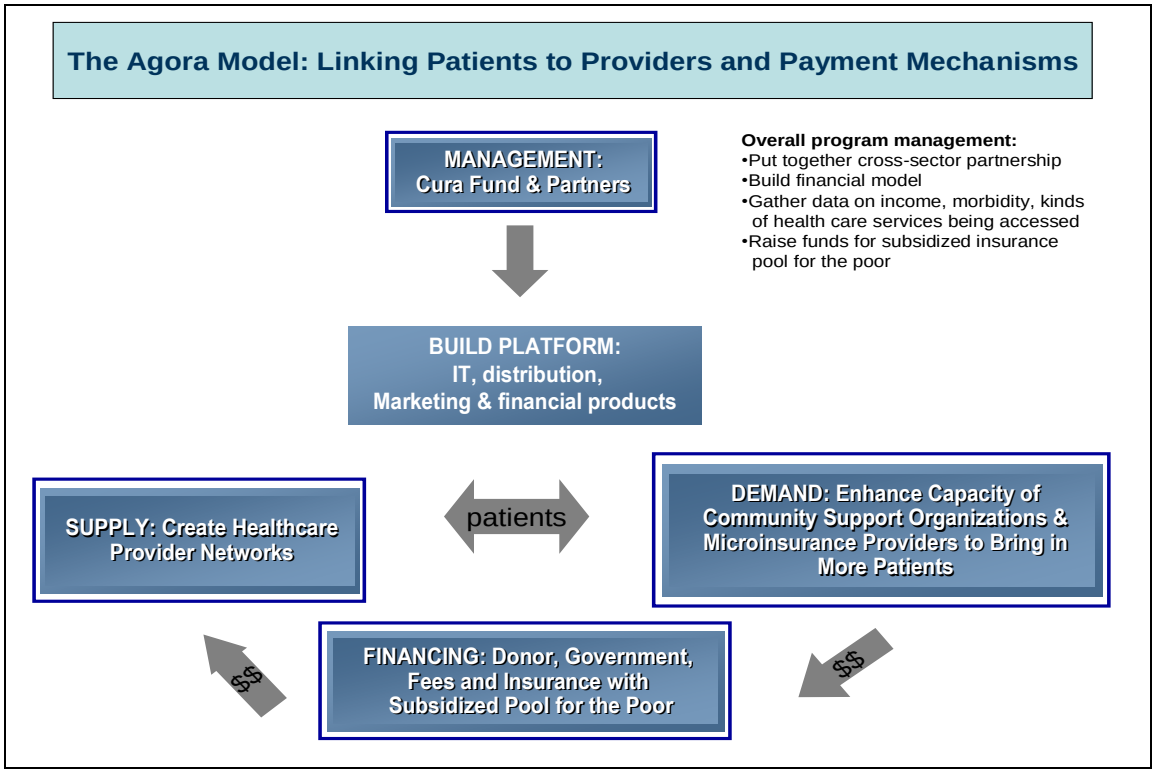
The fragmented system has dire consequences for public health. Take HIV/AIDS as an example. Antiretroviral drugs are widely available and affordable in India thanks to international donors and the domestic generics market. But there is a very limited delivery infrastructure to get the drugs to patients, especially in rural areas where the majority of Indians live. In addition, most patients have no means to finance a drug regimen. If a service, delivery and financing platform existed for general healthcare, it would be possible to treat HIV/AIDS properly in the short term with drug therapy, and thereby halt the disease progression and its escalating cost to the public health system. HIV/AIDS is just one example, and similar interventions could be put in place for any disease once a healthcare delivery platform is built.

Proposed Solution by *Yy*

The *Yy* model proposes to create a cross-sector partnership that brings together three key elements in a viable healthcare delivery system—supply, demand and financing. Starting with one state in India and its existing infrastructure, we aim to show that market based strategies and rigor *can* reduce redundancies, enhance efficiencies, and lead to sustainability. We propose to bring together sellers of health services (providers) with potential buyers (patients) by using the model of creating one or more provider networks, and linking them to microinsurance and other health financing programs. At the same time, we will work with existing community based organizations to educate their members in order to drive awareness and demand for insurance products that make the offered health services affordable.

We envision this network being used primarily by the lower and burgeoning middle classes. By providing more efficient care and layering in financing products, we hope to bring down dramatically the cost of healthcare for those already paying out-of-pocket for these services. At the same time, we realize that access for the bottom of the pyramid (BOP) will need to be subsidized. Over time, the Government of India should finance a social health insurance system directly. However, that option is not realistic as yet. We therefore propose that the subsidized access for the BOP be funded by international donors while we work on the creation of a self-sustainable model.

A schematic drawing of the model can be found below:



Activities Undertaken To Date

XX has already completed the initial due diligence process and concluded the following:

Geographic Selection – We reviewed healthcare systems in countries in Latin America, Africa and Asia, eventually choosing India as the site of our first pilot. We then did in-country market research and met with potential partners in each area of operations to solicit latest thinking and best practices. We chose India because it has:

- Strong base of healthcare providers;
- Large BOP population to target, coupled with emerging middle class with ability to pay for healthcare;
- Stated governmental will to support health systems development;
- Established distribution networks into rural areas of micro-financial products and insurance;
- High out-of-pocket expenditures on health.

Model Definition – Multiple discussions were undertaken with leading experts at the World Bank, IFC, and other implementing firms to refine our thinking on the design of the Yy model. Key innovations would include:

- The establishment of a provider network with a broad suite of primary care, diagnostic, and acute care services offered at standardized pricing and delivered with pre-established quality standards;
- The creation of a healthcare services package that can be delivered through this network of providers and linked to an affordable insurance product;
- The creation of an insurance pool, with an accurately-priced risk premium, to cover claims and reserves;
- The creation of a platform to manage patient uptake, collect premiums, process claims, detect fraud, and ensure quality of care;
- Identification of international donors who can help subsidize the insurance premium for those unable to afford it.

Primary Challenges – We also identified the gaps that require further research and testing before a full scale rollout of the model:

- No standard system for patient tracking or fraud detection:
- Duplication of efforts among multiple organizations serving small segments of the patient population;

- Varying rates charged and services offered by multiple organizations, creating confusion, distrust, and market distortions;
- Limited sharing of data needed to create viable insurance products;
- Limited knowledge and availability of reinsurance to make system sustainable.

Proposed Activities

XX is seeking $xx to test the feasibility of its *Yy* model over a seven-month period on the ground in Andhra Pradesh, India. The goals of the feasibility study are:

- *Put together cross-sector partnership* - building on our existing network and identifying insurance companies, TPAs, community based organizations, and healthcare providers, determine viability of delivery network.
  - Research "wrap-around" services (accreditation, disease management, etc.) – identifying service partners, cost structure, and desire for various services on the part of providers and patients;

- *Gather data/Design Product* - on income, morbidity, existing healthcare services:
  - Basic provider research – what are the common illnesses, procedures, and medications; how many providers and where; billing and other practice capabilities, etc.
  - Create service package – based on data above, create package of services that can be delivered through this network;
  - Market research with broader provider and patient groups – survey/focus group work to determine receptivity to concept of acceptance of insurance, willingness to pay, logistics of claims administration, and ability to handle additional demand.
  - Pricing survey – based on service package, detailed cost and pricing study with providers in the area.

- *Build financial model* - of cash flows from customers and to each operating partner, to ensure a sustainable model:
  - Identify underwriting partner – find and recruit an insurance provider as a partner in these efforts;
  - Evaluate distribution system – evaluate various approaches to distributing insurance products/managing claims administration/fraud across AP, model cost structure and effectiveness of each, make recommendations for preferred and most sustainable approach.

- *Raise funds for subsidized insurance pool for the poor:*
  - Determine size of pool needed for the feasible numbers of patients that can be served by the model;
  - Identify international and bilateral donors.

Conclusion

India is seen as an economic powerhouse and one of the success stories of global economic growth, yet its government spends less than 1 per cent of GDP on healthcare. This has meant that a disproportionately large and growing share of the burden of healthcare is borne by Indian citizens. The Indian healthcare system, if properly networked using a combination of private/public players, has all the key elements to be able to provide quality, affordable care to a significantly larger portion of its population than is covered currently. Our goal is to build a common platform in a geographically discrete area, and show how by linking providers, patients and financing, and by using approaches that have already worked in the U.S. and elsewhere, we can vastly improve access and equity in healthcare delivery.

While it is in the long-term interest of private sector companies to have such a uniform platform, there is a short-term focus and profit motive that inhibits capacity to test and refine this type of model. The proposed platform will leverage the disparate pools of monies currently being spent on healthcare by international donors, NGOs, consumer out-of-pocket, and insurance providers to create a more efficient delivery model. This would improve not only the plight of those without access to healthcare but also improve overall aid effectiveness. We invite you to join us in this unique opportunity to improve India's health—and build a model applicable in many similar markets.

Appendix A: **Timeline and Budget**

Proprietary information omitted

Appendix B: **Why Andhra Pradesh?** ***page 1***

Andhra Pradesh (AP) exemplifies both the greatest problems facing India as well as the practical improvements that can result from investment and thoughtful oversight. AP offers one of the best possible combinations of need for affordable and accessible healthcare, and the foundation for a solution. XX's choice of AP as an ideal location in which to pilot the *Yy* Model is based on its favorable business and economic indicators, its progressive government, and the existing state spending per capita on healthcare. The World Bank has performed an extensive analysis of AP as a basis for their $900 million lending portfolio to the state:

Business Climate and Government:

- *Accounts for 8.3 percent of India's land mass, 7.3 percent of the country's population, 7.1 percent of India's GDP, (an economy of US$ 45 billion in 2004-05), and over 7.5 percent of the country's poor.*

- *One of India's leading reforming states*. Current government has continued key reform initiatives of the past—fiscal discipline, improved investment climate, governance reforms, restructuring of public enterprises—and extended to new areas including liberalization of agricultural markets, increasing access of poor to land and credit, shifting public expenditure to build rural infrastructure.

- *Significant progress improving living standards of its citizens*. A decade-long reform program has led to AP having the best managed power sector, third highest credit rating, third best investment climate and fourth lowest corruption level of all Indian states.

- *Poverty dropped from over 30 percent in 1990 to 21.6 percent in 2000*. In the same decade, there was also a 39 percent increase in literacy, a rise in the school enrollment ratio of 6 to 10 year olds from 73 to 85 percent, and a 24 percent increase in the proportion of the population with access to safe drinking water.

On the Economic Front:

- *Growth averaged 5.3 percent annually* during the first half of the 1990s, accelerating to 6.1 percent in the second half of the decade. Despite two bad monsoon years, the state's economy grew by 4.7 percent annually between 2000 and 2004.
- *Double-digit growth in the information technology sector,* with services and manufacturing sectors also experiencing significant growth.
- *One of the best investment climates in India and one of the country's top recipients of foreign direct investment.*
- *World Bank's $900 million second largest Bank program* in India after Uttar Pradesh.

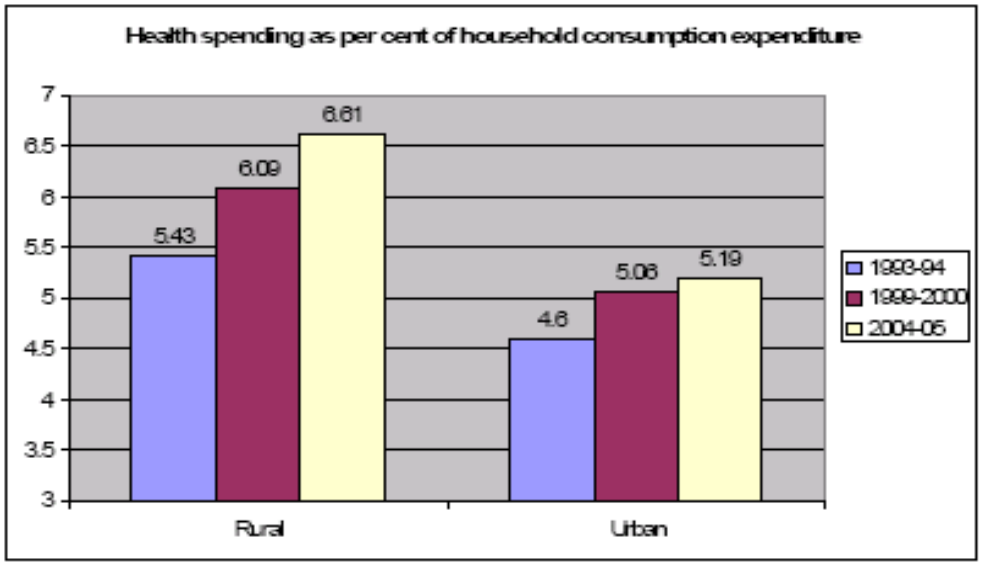
Healthcare Costs and Funding in Andhra Pradesh: The MacArthur Foundation's August, 2006 study "Government Health Expenditure in India: A Benchmark Study" shows the disproportionate percentage of household income versus public funds spent on healthcare by each of India's 14 states. The study also points out that AP is one of only four Indian states where health expenditures grew at an annual rate of more than 7%.

Table 2: Health care spending in India, 2004-05

State	Per capita expenditure (Rs.)	Per cent spent by		
		Household	Public	Other
Andhra Pradesh	1118	73.4	19.4	7.2
Arunachal Pradesh	4365	86.5	13.5	0
Assam	1347	80.8	17.8	1.4
Bihar	1497	90.2	8.3	1.5
Delhi	1177	56.4	40.5	3.1
Goa	4564	79.2	17.5	3.3
Gujarat	1187	77.5	15.8	6.7
Haryana	1786	85	10.6	4.4
Himachal Pradesh	3927	86	12.4	1.6
Jammu & Kashmir	2082	77.3	20.7	2
Karnataka	997	70.4	23.2	6.4
Kerala	2952	86.3	10.8	2.9
Madhya Pradesh	1200	83.4	13.6	3
Maharashtra	1576	73.3	22.1	4.6
Manipur	2068	81.2	17.2	1.6
Meghalaya	664	36.5	58.4	5.2
Mizoram	1027	39.4	60.6	0
Nagaland	5338	91.7	7.6	0.7
Orissa	995	79.1	18	2.9
Punjab	1813	76.1	18	5.9
Rajasthan	808	70	24.5	5.5
Sikkim	2240	56.9	43.1	0
Tamil Nadu	933	60.7	26.6	12.7
Tripura	1101	69	27.4	3.6
Uttar Pradesh	1152	84.3	13	2.7
West Bengal	1188	78.4	17.3	4.3
Union Territories	598	85.1	8.8	6.1
All India	**1377**	**73.5**	**22**	**4.5**

Source: Report of National Commission on Macroeconomics and Health, Government of India, 2005

Chart 2: Health spending as per cent of household consumption expenditure, 1993-94 to 2004-05



Source: NSSO Surveys of consumption expenditure, 50th, 55th and 61st Rounds.

Table 4 illustrates that AP has the second highest growth rate in healthcare expenditure of all states, while Table 5 places it in the middle (seventh out of 14 states) on per capita spending on healthcare.

Table 4: Annual rates of growth of expenditure by category

	1993-94 to 2002-03	1993-94 to 1997-98	1998-99 to 2002-03
Andhra Pradesh			
Medical and Public Health	7.50	4.95	6.97
Family welfare	6.26	3.14	4.88
Assam			
Medical and Public Health	-0.56	1.22	3.22
Family welfare	2.07	-6.18	4.81
Gujarat			
Medical and Public Health	6.54	9.05	-6.02
Family welfare	3.18	4.60	-5.52
Haryana			
Medical and Public Health	5.81	6.63	-1.09
Family welfare	-2.05	-7.41	-2.03
Karnataka			
Medical and Public Health	7.16	4.67	2.49
Family welfare	7.96	6.66	9.38
Kerala			
Medical and Public Health	4.46	2.42	4.71
Family welfare	0.81	-2.99	-0.62
Maharashtra			
Medical and Public Health	6.18	4.36	6.05
Family welfare	0.45	0.05	11.59
Madhya Pradesh			
Medical and Public Health	-1.82	4.11	-16.32
Family welfare	-6.85	0.36	-16.60
Orissa			
Medical and Public Health	5.88	1.72	4.15
Family welfare	-0.69	-0.29	-6.69
Punjab			
Medical and Public Health	8.84	6.84	1.16
Family welfare	-4.11	-2.41	-6.32
Rajasthan			
Medical and Public Health	4.60	8.71	-1.59
Family welfare	1.87	8.50	-2.48
Tamil Nadu			
Medical and Public Health	3.73	5.66	-2.49
Family welfare	3.80	-1.28	3.53
Uttar Pradesh			
Medical and Public Health	0.05	4.24	-1.47
Family welfare	-5.53	-0.45	12.30
West Bengal			
Medical and Public Health	7.64	3.81	1.83
Family welfare	4.84	-2.24	

Table 5: Per capita spending by state governments on health and family welfare together
(in constant 1993-94 prices)

	1993-94 (in Rs.)	As per cent of highest	2001-02 (in Rs.)	As per cent of highest
Andhra Pradesh	75.93	68.3	106.17	70.5
Assam	80.25	72.2	73.64	48.9
Gujarat	83.17	74.9	97.06	64.5
Haryana	81.3	73.2	86.88	57.7
Karnataka	86.43	77.8	135.06	89.7
Kerala	100.73	90.7	128.4	85.3
Maharashtra	87.76	79.0	115.38	76.7
Madhya Pradesh	64.14	57.7	35.97	23.9
Orissa	58.92	53.0	72.24	48.0
Punjab	111.09	100	150.51	100
Rajasthan	85.46	76.9	110.08	73.1
Tamil Nadu	98.64	88.8	122.35	81.3
Uttar Pradesh	67.71	61.0	48.29	32.1
West Bengal	74.31	66.9	102.31	68.0