

ID#100507

PUBLISHED ON
JUNE 28, 2010

**THE JEROME CHAZEN
CASE SERIES**

Dial 1298 for Ambulance Marketing EMS in Mumbai

BY GITA JOHAR* AND JOANNA HARRIES†

ABSTRACT

In 2005 Ziqitza Healthcare launched Dial 1298 for Ambulance—a program that attempted to fill the need for universally accessible, high-quality emergency medical services in India. By 2009, with additional support from the Acumen Fund, 1298 operated over 90 ambulances in Mumbai and several other locations in India. With these services in place, the organization was poised to meet the challenge of how to raise awareness among consumers long accustomed to alternate, and lesser quality, service providers.

CONTENTS

Introduction.....	1
Background: EMS in India	1
Mumbai and the BPL Segment	2
Ziqitza Healthcare/1298	3
Early Growth	4
Enter Acumen: Nonprofit Global Venture Firm	5
Initial Marketing Outreach.....	8
Market Research Study	9
Marketing to the BPL Segment.....	9
Exhibits	11

**Meyer Feldberg Professor of
Business, Columbia Business
School*
† *Associate, Endeavor Global*

Acknowledgements

We are grateful to Brian Trelstad and Robert Katz of the Acumen Fund for their contributions to the development of this case.

James W. Quinn provided additional research and writing support.

This case was sponsored by the Chazen Institute and the Columbia University Center for International Business Education and Research (CIBER).

Copyright information

© 2010 by The Trustees of Columbia University in the City of New York. All rights reserved.

This case cannot be used or reproduced without explicit permission from Columbia CaseWorks. To obtain permission, please visit www.gsb.columbia.edu/caseworks or e-mail ColumbiaCaseWorks@gsb.columbia.edu.

Introduction

On March 2, 2009, Jane Harmon¹ sat at her desk in Mumbai, India. The office was uncharacteristically quiet, as most of her colleagues had finished their work and departed for the night. As a one-year marketing fellow with the Dial 1298 for Ambulance (1298) program, a growing start-up venture aimed at providing emergency medical services (EMS) in India, Harmon was reviewing the recent surveys she had administered as part of a market research study.

To Harmon, the task of developing a marketing plan for a start-up social venture in India was entirely new. Although she had focused on sustainable strategies in her MBA studies, she had most recently served as a brand manager with Unilever in Toronto; previous to that position, she had been a high-tech marketer for Microsoft.

The Acumen Fund, a nonprofit global venture fund that had made a \$1.5 million equity investment in 1298, placed “fellows” in critical roles within their portfolio companies, thereby ensuring that cutting edge management practices would provide support for its investees. Acumen had the utmost confidence in Harmon’s ability to deliver real results for 1298, which was currently operating 55 ambulances in Mumbai, up from five just a few years earlier.

In the two years prior to Harmon’s arrival, 1298 had successfully transitioned from a start-up with relatively low capital resources and operational reach to a growth organization with aspirations of increasing the penetration of its EMS offerings within Mumbai and throughout India. However, even as the company enjoyed some early signs of success, it was becoming clear that 1298’s marketing strategy needed to be sharpened to incorporate a more segmented approach. In particular, 1298 wanted to better understand how to reach the below-the-poverty-line (BPL) segment in Mumbai. As this group was especially vulnerable both to accidents and to delays in medical treatment, executives at 1298 were determined to improve not only the segment’s awareness of 1298’s EMS offerings, but more importantly, its actual usage rates going forward.

Harmon sorted through the survey responses again. They revealed a great deal about the closely held consumer perceptions of the BPL segment in Mumbai. In two weeks time Harmon would be giving a presentation to the 1298 board to recommend a marketing strategy focused solely on improving usage rates among people in that segment. Her recommendations not only would inform the way in which the current marketing budget would be allocated but also held the potential to be used in future rollout efforts as 1298 expanded services throughout India.

Background: EMS in India

India’s population had great need for emergency medical services, as selected demographic and health data made clear. Worldwide, the ratio of traffic accidents was 0.75 accidents per 1,000

¹ The Acumen fellow’s name has been changed for the purposes of this case.

vehicles. The ratio in India was more than 20 times the global average, or 16 accidents per 1,000 vehicles. India's large land mass² and varied topography, which includes mountains, deserts, rainforests, and river plains, makes the country susceptible to natural disasters. Estimates showed that 57% of the land was vulnerable to earthquakes, 68% to droughts, 8% to cyclones, and 12% to floods. Analysts also noted that India's leading cause of death—heart disease—necessitated an improvement in the EMS infrastructure in order to curtail deaths associated with heart attacks and other acute trauma in which speed of response played an important role in treatment.³

At the time Harmon was preparing her presentation for the 1298 board, India did not have a basic operating environment favorable to ambulance and related services. Typically, ambulance services were offered by hospitals, government agencies, charitable trusts, NGOs, and individual private operators. Many of these services, however, were thought to be largely inefficient: industry observers estimated 90% of ambulances in operation in urban India were in poor condition and had no medical equipment or trained paramedics onboard. Unlike in the United States, where citizens seeking ambulance services could simply dial 911 to gain emergency access, no single universal access number existed in India. Of the existing fleet of ambulances, very few could be considered fully equipped with a complete complement of medical supplies. Additionally, ambulance personnel lacked necessary first-responder training and often did not have the skills necessary for administering pre-hospital care needed in medical emergencies.

In this underdeveloped, unintegrated operating environment, it was not uncommon for response times to be very long—often too long to satisfy the needs of emergency patients.⁴ In addition, the realities of corruption, including kickbacks and bribe payments, were part of the EMS world. Typically, Indians had very little trust in ambulance services, and many did not even consider calling an ambulance in times of medical need. Instead, many relied on alternative means of transportation, including taxis and rickshaws. In most major Indian cities, rickshaws—small, three-wheeled, open-sided vehicles—were either drawn by a bicycle or powered by a motor. In addition to lacking any onboard medical equipment and/or personnel, rickshaws had the additional disadvantage of being accident prone themselves.

Mumbai and the BPL Segment

In 2001 the total urban population in India was roughly 285 million, according to the census of that year. At that time, the population of India's largest city, Mumbai, was 11.9 million; including all of its surrounding suburbs, Mumbai's population was approximately 17.4 million.

² With roughly 1.3 million square miles, India ranks as the seventh-largest country in the world.

³ See References at end of case for medical, demographic, and general data sources.

⁴ The goal for most U.S. cities was an eight minute response time; 1298's goal was to approach 15 minutes.

Analysts believed that the BPL segment of Mumbai's population was the most in need of EMS. Due to their location and lack of infrastructure, slum areas in Mumbai were highly vulnerable to such threats as floods, health hazards, fires, and cyclones. By definition, an individual living below the poverty line in India earned \$4 per day or less. For a family of four, the threshold was 2,400 rupees⁵ per month or about \$53 USD.⁶ While there was no census data regarding the precise number of BPL Mumbai citizens, a conservative estimate placed the proportion of that segment at 30%, or roughly 4,000,000 people in 2008. This translated into 1,078,000 households in Mumbai.

The urban BPL expenditure on healthcare was an average of under \$4 per month, or 7% of income. Harmon's data suggested that the BPL market size in Mumbai was \$45 million. She reasoned that capturing only 1% of the overall healthcare market would yield a substantial annual revenue stream—\$450,000.

Ziqitza Healthcare/1298

Ziqitza Healthcare, a for-profit company launched in Mumbai in 2002, was established to provide universally accessible, high-quality EMS in India. The name *Ziqitza* was derived from the Sanskrit *chikitsa*, meaning medical treatment, and *zigyasa*, meaning quest for knowledge. The company began operations with capital of under \$400,000⁷ and just one ambulance to serve the Mumbai area. Originally, the founders planned to acquire a 3-digit phone number, as used in the United States (911) and England (999), which patients could call to access emergency ambulance services. But when the team approached the Union Telecom Minister, they learned that 3-digit numbers were allocated only for government programs, and as a non-government group they were instructed to select a 4-digit number beginning with '12.' According to the story, the group initially requested the number '1299', but a bureaucrat required a bribe to fulfill the request. In response, the group selected '1298' instead⁸ and the initiative was thereafter referred to as the *Dial 1298 for Ambulance* program, or simply *1298*.

Ziqitza was founded by four social entrepreneurs, all in their thirties. Ravi Krishna, Naresh Jain, Manish Sancheti, and Shaffi Mather all left lucrative positions to start the venture, which had at its origin medical emergencies directly affecting two of 1298's founders: "A medical complication that struck Mather's mother at an odd hour played a vital role in scripting this social venture," the *Bombay Times* reported. "Though the trying hour passed, the incident left a lasting impression on Mather. A week later, Krishna lost a close friend in a road accident, as timely medical attention was

⁵ The rupee is the basic monetary unit of India; 1 rupee=approximately.022USD

⁶ For the remainder of the case, unless otherwise noted, all amounts will be cited in USD.

⁷ Teejesh N.S. Behl and Aman Malik, "Here Comes 'Good' Money," *Business Today*, June 17, 2007.

⁸ Maria D'Souza, "Dial L for Life," 75.

not available.”⁹ By contrast, when Krishna’s mother collapsed in Manhattan from what was later found to be septicemic shock, the 911 Ambulance responded and reached her in four minutes and 30 seconds...making plain the great shortcoming in ambulance services operating in India at the time.¹⁰

One distinguishing feature of the new healthcare venture was its revenue model. Charges to patients for the ambulance services were made on a sliding scale. “Those who go to free government-run hospitals pay a subsidized rate for services,” explained one analyst, “while those who ask to be taken to Mumbai’s more expensive private hospitals pay accordingly... The price range starts from 750 rupees for basic services to about 1,500 rupees for cardiac care.”¹¹ The so-called cross-subsidy model—under which more affluent patients in effect subsidized the care that BPL and other low-income clients received—allowed Ziqitza the potential to serve any and all citizens in Mumbai who requested EMS through Ziqitza Healthcare. In addition, accident and disaster victims were transferred to a government-run hospital free of charge.¹²

At its founding, all of the following 1298 services could be accessed (24 hours per day, seven days per week) by dialing 1298 across all telecom providers:

- Basic Life Support (BLS): Administered oxygen, treated splint fractures, controlled bleeding, and performed CPR in cases of cardiac arrest. Trained helper (nurse) and driver on board.
- Advanced Life Support (ALS): Administered sophisticated equipment to monitor, shock, and pace the heart of the patient. Trained EMS doctor and driver on board.
- Patient Transport Service (PTS): Provided patients with transportation, including hospital to hospital or other destinations in nonemergency situations. BLS or ALS ambulance dispatched, depending on the care required.
- Free Transport: Offered to all accident and disaster victims. BLS or ALS ambulance dispatched, depending on emergency situation.

[Click here to view footage of 1298 services in Mumbai.](#)¹³

Early Growth

Proponents of the new 1298 model pointed to a number of early success indicators. Between 2005 and 2007 there were more than 30,000 completed incoming telephone calls.¹⁴ Approximately 15% to 20% of the services provided in response to the completed calls were free or subsidized, thus indicating to 1298 executives and staff that their services were at least beginning to touch all social

⁹ Shivani Desai, “Business of Benevolence,” *Bombay Times*, August 20, 2009.

¹⁰ Maria D’Souza, “Dial L for Life,” *Outlook Business*, May 2, 2009, 74.

¹¹ Jeetha D’Silva, “Acumen Fund Invests \$1.5 million in health-care firm,” *HT Media Ltd.*, August 3, 2007.

¹² Moses Lee, “Subsidies in Base-of-Pyramid Venture Development,” *William Davidson Institute*, March 2009.

¹³ <http://www.acumenfund.org/investment-story/1298-solar-ambulances.html>

¹⁴ Jeetha D’Silva, “India Wakes up to the Need for Ambulances,” *HT Media Ltd.*, August 30, 2007.

strata within Mumbai. In contrast to many of the ambulances operating in other parts of India, “the cardiac ambulances had the necessary life-saving equipment and medication and were fitted with global positioning and radio systems.”¹⁵ And as the number of ambulances owned and operated by 1298 was growing steadily—from 5 in 2006 to 19 in 2007—the company’s executives were also engaged in developing partnerships with outside service providers, including New York-Presbyterian Hospital and the American Heart Association.

The 1298 business model included two distinct streams of revenue. One was generated through fees associated with EMS. This revenue grew substantially in the first few years of operation, from \$30,296 (2006-07) to \$166,819 (2007-08). Reflected in the increase in revenue was both an increase in ambulance trips as well as an increase (from \$6.92 to \$8.01) in the average charge per trip over the same period.

The second revenue stream was generated through advertising. In addition to displaying its 1298 telephone number on all of its ambulances, the company also placed large, multicolor advertisements on its vehicles, thus providing a moving billboard for its corporate sponsors. In the early years of operation, advertising revenue outpaced EMS revenue, with 1298 generating ad proceeds of \$54,897 in 2006-07 and \$208,608 in 2007-08. Over time, the leading stream of revenue was expected to shift to EMS (see Exhibit 1).

While 1298 experienced early success and began to build momentum, its leadership was charting a future course for growth. “We plan to have about 70 cardiac ambulances in [Mumbai],” said 1298 founder Sancheti in 2007, adding: “We hope to cut our response time to about seven or eight minutes from the current 15 minutes.”¹⁶ Additionally, 1298’s five-year plan included a goal of moving beyond the area of Mumbai to target other cities in India.

Enter Acumen: Nonprofit Global Venture Firm

The executives of 1298 viewed the organization as poised for future growth but lacking the necessary capital to fund that expansion. Therefore, in 2007 they approached a nonprofit global social venture firm, Acumen Fund. With its focus on using “entrepreneurial approaches to solve the problems of global poverty,” Acumen appeared to be a promising potential partner. Founded in 2001 by Jacqueline Novogratz, whom the *Economist* described as a *patient capitalist*, Acumen sought equity and debt investments in a range of areas, including agriculture, energy, health, and housing, as well

¹⁵ D’Silva, “India Wakes Up.”

¹⁶ D’Silva, “India Wakes Up.”

as water and sanitation.¹⁷ Acumen had increased its assets under management from \$2 million in 2003 to \$24 million by the end of 2007 (see Exhibit 2).¹⁸

Acumen Fund had operations and placed investments in four main geographic areas: East Africa, the Middle East, Pakistan, and India. In selecting potential investment partners, the Acumen team adhered closely to four main investment criteria.¹⁹ It sought entrepreneurial organizations possessing:

- Ethical entrepreneurs with both the desire to change the world and the skills to build a thriving enterprise
- The ability to generate significant social change, including the potential to scale to more than one million customers
- The ability to achieve financial sustainability, including profitability and 1 to 1.5x cash on cash return to Acumen Fund
- The potential to develop blueprints for innovative business models

Acumen's chief investment officer, Brian Trelstad, was impressed by the focus and strength of the 1298 team, noting their passion for the work of improving India's access to quality ambulance care. He and his colleagues viewed the underlying concept and business model as compelling and also recognized that to the extent that the 1298 program experienced growth and success, the impact on India's population would be both substantial and demonstrable.²⁰

[Click here to view Acumen's CIO Brian Trelstad discuss the organization's initial interest in the 1298 project.](#)

In 2007 Acumen placed a \$1.5 million equity investment in 1298. The infusion of capital would be targeted to two key areas: 1) the purchase of additional ambulances; and 2) the hiring of additional marketing personnel. As an active equity partner, Acumen received one board seat and also developed close working relationships with 1298 management. Robert Katz, a portfolio associate based in Acumen's New York office, said that Acumen intended to use its influence for several fundamental purposes.²¹ He felt it was important for 1298 to evaluate very carefully the number of free and/or reduced-fee calls it served in a given period. If the proportion of free or reduced fee calls became too high, Katz explained, it would cut into the profitability of the company and—consequently—its ability to serve those free calls. If the number of free calls were too low, however, 1298 risked not serving the BPL market need it was founded to address. The tradeoffs bled over into marketing such a service as well, he explained. If the company marketed itself as free or low-fee, there would be a risk of degrading the value of the service in the mind of 1298's full-pay customers. On the other hand, by marketing the ambulances as high quality and worth the money, the company

¹⁷ “Jacqueline Novogratz, Acumen Fund's patient capitalist,” *The Economist*, May 21, 2009

¹⁸ Acumen's assets under management were expected to approach \$43 million by the end of 2009.

¹⁹ Acumen Fund Presentation, Columbia Business School, November 4, 2009.

²⁰ All statements attributed to Trelstad are based on November 4, 2009 interview at Columbia Business School.

²¹ All statements attributed to Katz are based on November 4, 2009 interview at Columbia Business School.

ran the risk that the BPL segment would no longer perceive the possibility for free emergency transport and medical assistance—and would thus cease to use 1298’s EMS services.

Acumen typically made decisions about debt versus equity allocations to its portfolio companies based on the particular circumstances of each company. Organizations with adequate cash flow available to fund principal and interest payments would qualify for debt investments; however, these cash flow characteristics were seldom present in early-stage start-up organizations. Some countries in which Acumen’s portfolio companies operated possessed stringent loan regulations, which often precluded debt financing. While Acumen achieved, on average, 4x leverage for every dollar invested, the fund did not place the high or binding return targets that are often present in private equity arrangements. In the case of 1298, Acumen was looking to achieve 1x to 1.5x its invested capital.

As a nonprofit organization addressing itself to the problems of global poverty, Acumen did not return profits to limited partners but rather reinvested its profits in other portfolio companies. If it were a traditional venture capital fund, this would be impossible; as a nonprofit, Acumen was able to leverage its philanthropic donations by recycling capital through a series of investments, promoting transparency and accountability along the way.

Acumen Fund executives described the company’s approach as a blend of traditional venture capital (VC) investing and typical philanthropic funding. In general, VC firms strove to maximize financial return. Thus, a project such as 1298 would not be attractive to them because of inadequate projected financial returns. On the other hand, traditional philanthropic organizations typically focused primarily, if not solely, on social impact, without concern for the attendant financial return and self-sustainability of the project. Acumen took a patient capital approach at the midpoint between these two extremes, giving attention to both the financial and the social impact of its projects (see Exhibit 3). The fund’s approach to deploying capital was also based on developing a local presence, employing the right capital (e.g., flexibility and creativity combined with investment rigor), and working within a scalable, nonprofit model.

Analysts noted that organizations like Acumen were indicative of a broader trend; VC firms were beginning to invest in sectors outside of mainline for-profit businesses. Globally, an estimated \$1.7 trillion of funding was targeted for so-called green and social spaces as of 2007.²² As one analyst put it, “as far as social ventures are concerned, the focus is on the emerging markets like India, where there are millions of poor people who are not served by big companies, leaving the field wide open for small, but innovative, entrepreneurs.”²³

[Click here to view Acumen Portfolio Associate Robert Katz discuss issues critical to the sustainability of the 1298 project.](#)

²² Teejesh N.S. Behl and Aman Malik, “Here Comes ‘Good’ Money.”

²³ Teejesh N.S. Behl and Aman Malik, “Here Comes ‘Good’ Money.”

Initial Marketing Outreach

Armed with \$1.5 million in equity capital, executives at 1298 began to focus more resources toward marketing EMS services to residents of Mumbai. The 1298 team was aware that the very notion of a universal call number for ambulance services was an entirely new concept in India. Their task was to develop a marketing approach that would increase awareness and promote usage of their service among the broad range of demographic groups in the city.

1298's marketing and outreach efforts initially had the look and feel of a grassroots, mass appeal effort. The company's marketers made arrangements to have the phone number and key messages printed on rail pass covers and poster boards, and even produced on cinema slides. The team also ran an extensive "Hoardings Campaign"²⁴ which involved the placement of billboard graphics and messaging at a range of high-visibility sites throughout the city. Each billboard featured a large color picture of a 1298 ambulance with the phone number printed in large, clearly visible characters on the side of the vehicle. Three key messages were printed below the pictured ambulance: 1) "Doctor on board"; 2) "Free transfer for accident victims"; and 3) "Subsidized rates."

[Click here to view slideshow images of the "Hoardings Campaign" in various Mumbai locations.](#)

In addition to investing in advertising, the 1298 team also developed emergency medical training programs. Certified by the American Heart Association and New York-Presbyterian Hospital, these sessions were run for 1298's own emergency care doctors and technicians. In addition, 1298 initiated a basic version of these courses, intended for laymen, entitled "First Responder First Aid Training." Typically sponsored by corporations, these training programs were targeted at schools and colleges in Mumbai as well as at a number of NGOs. This also provided an opportunity both to expose more Indians, including young people, to the 1298 phone number and EMS offerings, and to increase awareness about 1298's free or subsidized transport services.

The 1298 team also assembled a hospital outreach team to build relationships with hospital groups and employees in a position to refer patients to 1298 for transport and other services. In 2007 and 2008, approximately 20% of the calls coming into 1298's Mumbai Control & Dispatch Center were made directly by individuals. The remaining 80% were transfer or referral calls from hospital personnel.

For its public relations efforts, the 1298 team relied heavily on media coverage and other third-party endorsements of the organization's work. It was quite typical for any news story covering 1298 to feature shots of the ambulance vehicles themselves, with the 1298 access number prominently displayed (see Exhibit 4), and to include anecdotes about the young, passionate company founders.

Based on the growth 1298 experienced during 2007 and 2008, it appeared that the initial marketing and outreach efforts were making some contribution to improving awareness of the new EMS

²⁴ A *hoarding* is the British term for billboard.

offerings, although the extent of the impact was unclear. These early steps toward developing the 1298 brand and communicating its value did not include an impact study. No measurement scheme was in place to show that any of these programs either resulted in increased use of 1298's services or in additional revenue.

Another challenge facing the organization was how to target the BPL segment effectively. Initial marketing efforts had lacked a segmented approach, and there was some concern that the message about free or low-cost EMS was not taking hold among the more vulnerable, low-income citizens of Mumbai. This raised a number of questions regarding future marketing efforts. Were the current marketing channels reaching the BPL segment? What barriers existed to increasing awareness and usage among this segment?

Market Research Study

Early in her tenure as a 2009 Acumen fellow, Harmon carried out a large-scale research study examining the challenges to engaging the BPL segment and to increasing their use of 1298 services.

Primary research for the project included 100 one-on-one interviews through Women of India Network (WIN) clinics in Mumbai slums. As part of the data collection, Harmon prepared a simple five-question survey to be completed by each participant (see Exhibit 5). Other research projects included focus groups with WIN health workers and related secondary research efforts.

The findings generated a number of data points which appeared to be real barriers to 1298's involvement with the BPL segment. For instance, as of 2009, 60% of respondents said they would take an auto rickshaw to the hospital, while only 15% said they would take an ambulance. In addition, while 37% of participants indicated awareness of the 1298 program, only 4% said they would use it (see Exhibit 6).

In addition to the survey responses she gathered, Harmon also collected qualitative insights from both individual interviews and the focus groups. For instance, she learned that most people did not want to go to subsidized government hospitals because they believed that they would have to wait in long lines and receive poor service there. The perceived high cost of using a well-equipped ambulance was also a primary concern among the BPL segment (see Exhibits 7A and 7B).

[Click here for excerpts of qualitative interviews conducted by Harmon.](#)

Marketing to the BPL Segment

Equipped with the raw data from her recent study, Harmon was ready to finalize a marketing plan for the BPL segment that would not sacrifice revenues from 1298's full-pay customers. Adding to the

importance of her task was the fact that, if successful, the marketing plan used to reach the BPL segment in Mumbai would serve as a pilot project as 1298 rolled out to other cities across India.

Several challenges were apparent. First, although 1298 was pleased to have the equity financing from Acumen, marketing dollars and marketing personnel were still relatively limited. A second constraint was that while larger ambulances were more cost effective for the organization, they were generally unable to navigate the narrow laneways in slum communities.

Beyond these constraints, Harmon recognized that her plan would need to be consistent with the cross-subsidy approach at the heart of the 1298 business model. The current model set the maximum percentage of subsidized services as 20%. But Harmon questioned what the optimal mix between subsidized and full-pay customers actually was. In addition, she considered whether 1298's target rate for subsidized care should be the same for both the hospital-referred segment and the direct-call segment. At that time, the average monthly split between subsidized and full-pay care was 20% and 80%, respectively, consistent across the two segments.

Harmon and her marketing colleagues compiled cost data across a variety of media outlets to help guide their analysis and to build a plan (see Exhibits 8A and 8B). Harmon understood the importance of her marketing plan and of 1298's future efforts, knowing that the relative success of 1298 would be measured not just in terms of overall revenue and operational growth, but also in its ability to serve India's most vulnerable citizens. Yet through what media channels could this group be reached and how would 1298 measure the impact of their marketing efforts?

Exhibits

Exhibit 1

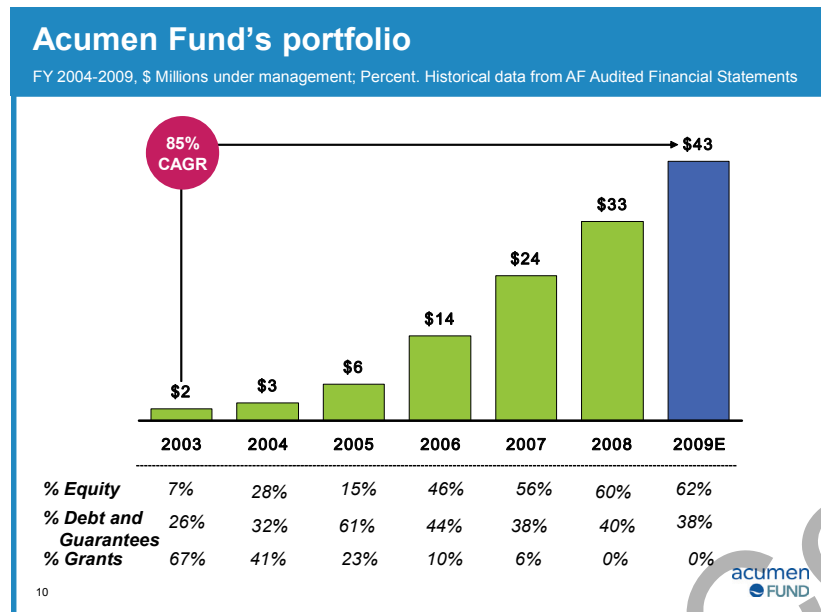
Revenue Calculations and Projections, 2006-2012E

Revenue figures in dollars	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
No. of trips a day per ambulance	4.0	5.0	5.8	6.3	7.0	7.3
No. of fully paid trips a day per ambulance	3.2	4.0	4.6	5.1	5.6	5.8
Average charge per trip	6.9	8.1	8.8	9.9	10.3	10.6
Revenue per day per ambulance	16.7	24.2	30.2	37.6	42.9	46.2
Annual revenue per ambulance	6,083.7	8,815.3	11,019.3	13,734.2	15,671.4	16,874.8
Number of ambulances	5	19	35	55	70	70
Annual revenue from total trips	30,418.4	167,490.7	385,676.8	755,381.3	1,096,993.9	1,181,233.8
Growth rate in trips per day	N/A	0	0	0	0	0
Charge per basic call	6.1	6.6	7.2	7.7	8.2	8.2
Growth rate in charge per basic call	N/A	0	0	0	0	-
Charge per cardiac (emergency) call	14.9	16.2	17.5	18.7	18.7	20.1
Growth rate in charge per cardiac call	N/A	0	0	0	-	0
Proportion of basic call	0.90	0.85	0.85	0.80	0.80	0.80
Proportion of cardiac (emergency) calls	0.10	0.15	0.15	0.2	0.2	0.2
Average rate per call	6.9	8.1	8.8	9.9	10.3	10.6
Advertising revenue for all vehicles	55,118	209,448	385,824	606,295	771,649	771,649
Percent of total revenue from ads	64.0	56.0	50.0	45.0	41.0	40.0
Revenue from ads and EMS services	85,536	376,938	771,501	1,361,677	1,868,643	1,952,882

Source: Case writer estimates.

Exhibit 2

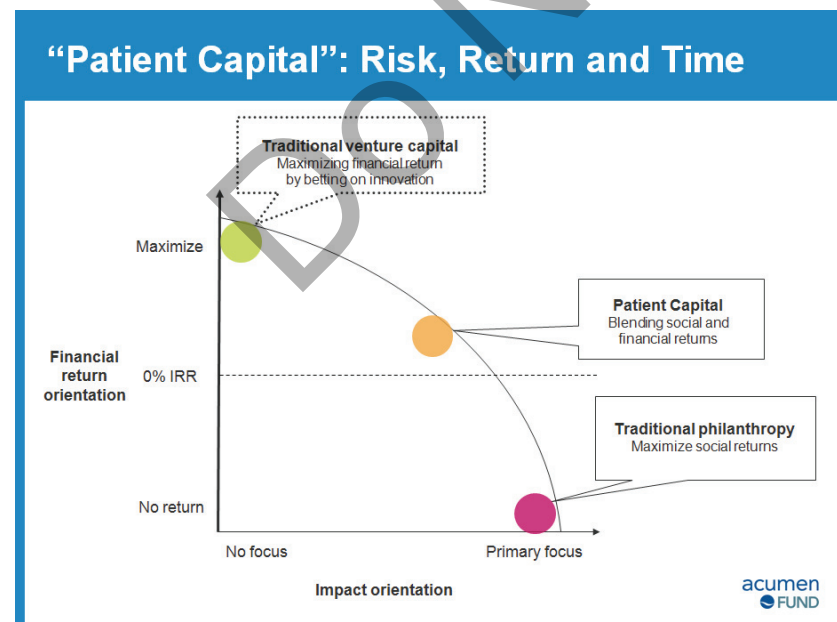
Acumen Assets under Management, 2003-2009E



Source: Acumen Fund Presentation, Columbia Business School, November 4, 2009.

Exhibit 3

Patient Capital for long term returns



Source: Acumen Fund Presentation, Columbia Business School, November 4, 2009.

Exhibit 4

Ziqitza Healthcare *Dial 1298 for Ambulance*



Source: Acumen Fund Presentation, Columbia Business School, November 4, 2009.

Exhibit 5

Survey – BPL Research Study

PLEASE FILL OUT THE SURVEY BELOW.

1. What do members of your family & community do in a medical emergency situation, when you need HELP because someone is sick?
 - a. Go to Clinic Doctor
 - b. Go to BMC / Government Hospital
 - c. Go to Private Hospital
 - d. Call an ambulance
 - e. Ask Neighbors for help
2. When your family or someone from your community travels to the Hospital how do they get there?
 - a. By ambulance
 - b. By Auto Rickshaw
 - c. By Taxi
 - d. By Bus / Train
 - e. Walk
3. Which ambulances can people in your community call for help?
 - a. Government / BMC ambulance
 - b. Community ambulance
 - c. Private Hospital Ambulances
 - d. 1298 Ambulances (yellow)
4. What are the reasons you or your family would NOT call an ambulance?
 - a. Costs too much
 - b. No Number to Call
 - c. Takes too Long to arrive
 - d. Same thing as taking a Taxi / Auto
 - e. I do not trust ambulances – I have had a bad experience
5. Who helps you when someone in your family gets sick?
 - a. Community Doctor
 - b. My neighbors
 - c. I call a Helpline
 - d. No one, I help myself
 - e. Community Leader (example - Secretary or Mangal)

THANK YOU.

1298 is a number you can call directly from your mobile and a fully-equipped ambulance will reach you quickly. The charge for a Basic Ambulance to go to a Government Hospital is 250 rupees only.

Source: 1298 Company Presentation, “Exploration of the BPL Consumer Segment Living in Urban Slums in Mumbai,” July 21, 2009.

Exhibit 6

Survey Responses –BPL Research Study

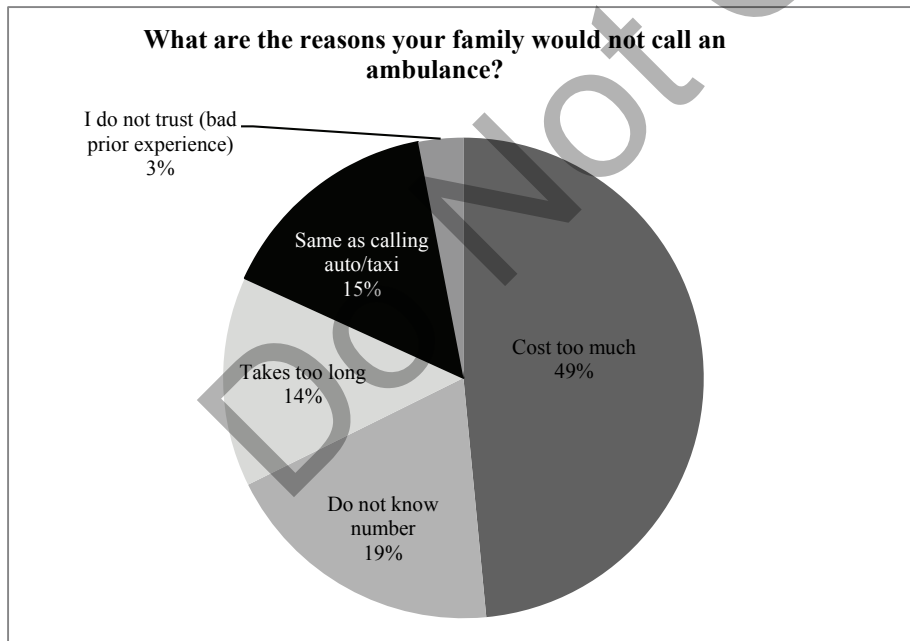
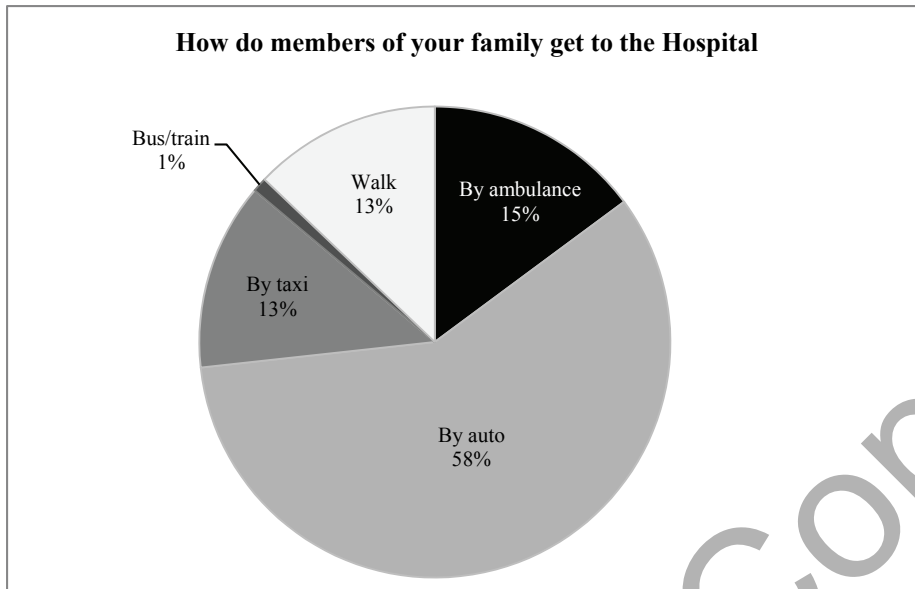


Exhibit 6 (continued)

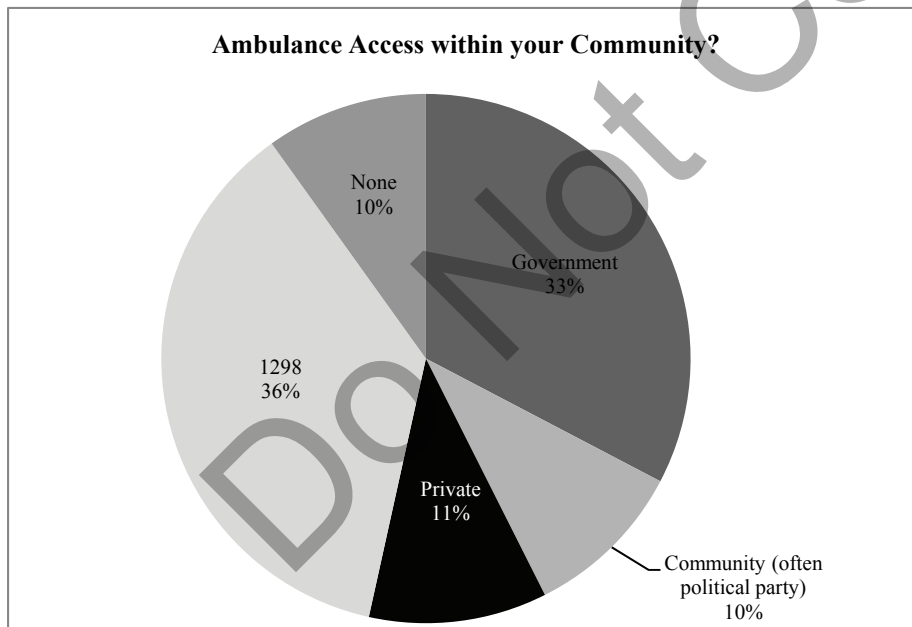
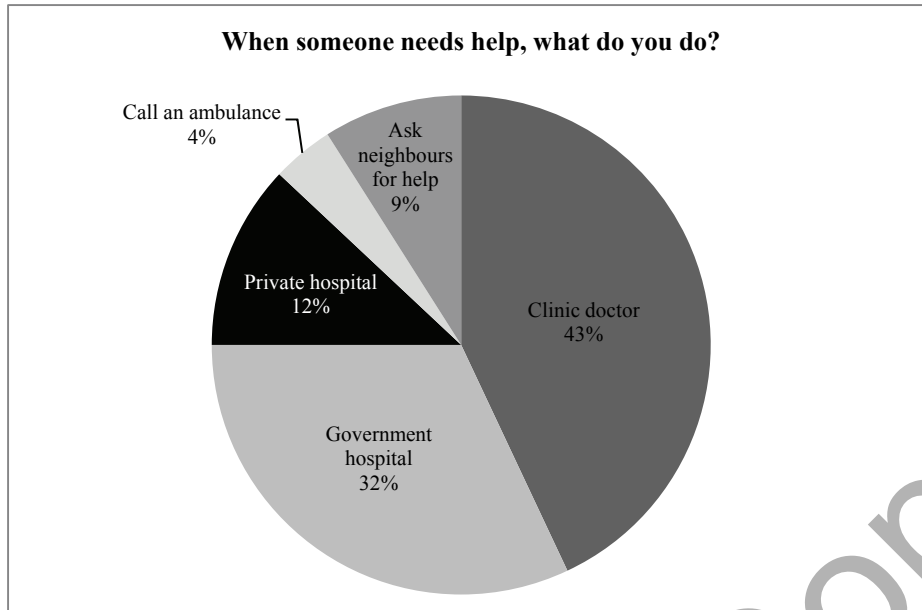
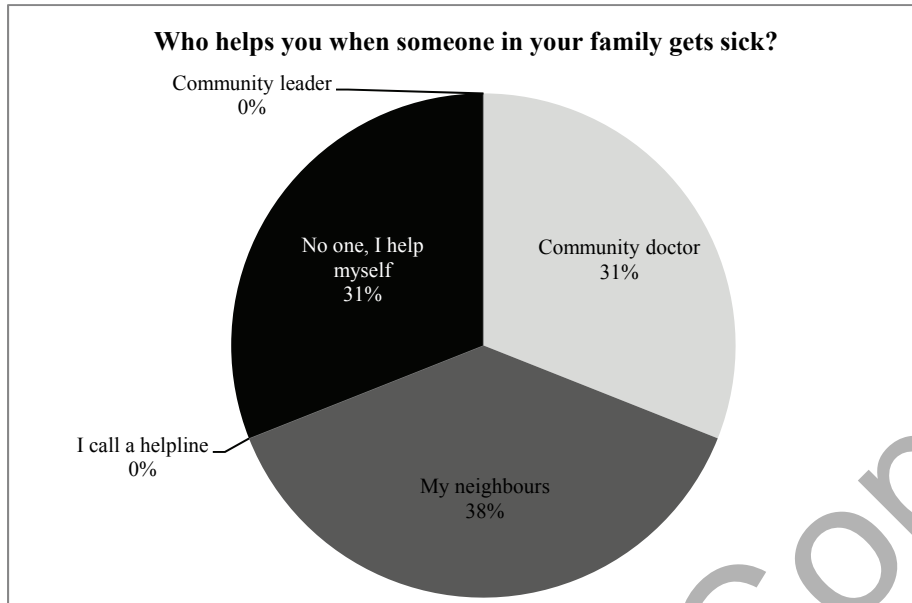


Exhibit 6 (continued)



Source: 1298 Company Presentation, “Exploration of the BPL Consumer Segment Living in Urban Slums in Mumbai,” July 21, 2009.

Exhibit 7A

Survey – BPL Research Study

Individual interviews and focus groups provided some important consumer insights

- Neighbors provide important help in a medical emergency—families do not operate in a silo.
- High use of rickshaws is not just due to cost of ambulance service—neighbors or husbands/sons are often drivers, providing easy access.
- Most people do not want to go to the government hospitals because of poor service and long waits there.
- High cost of using a well-equipped ambulance is a primary concern.
- Hospital avoidance is common (due to cost and inefficiency); people use home remedies, clinics, etc., before being transferred to government hospitals if necessary.
- There are ‘key influencers’ within a community. Community word of mouth is high.
- There is a lack of understanding of ambulance use in an emergency.
- Mother-in-law or husband will be decision maker on whether to call an ambulance or hospital.

Source: 1298 Company Presentation, “Exploration of the BPL Consumer Segment Living in Urban Slums in Mumbai,” July 21, 2009.

Exhibit 7B

Additional Qualitative Data and Insights from Interviews

- One woman did not know what the word ambulance meant at all—had no real affiliation or trust regarding ambulances
- Some interviewees do not really know what an ambulance is (“Doesn't it just transport dead bodies?”)
- An interviewee thought that government (BMC) ambulances are used for dead body transfers, but are not to be called in an emergency since that requires a long wait
- One interviewee had a bad experience with Nanavanti ambulance—was told it would cost 350 rupees and then was charged 1,500 rupees when reached hospital
- Many women said first they will try and help themselves in an emergency and only after that go to hospital
- Others said that their mother-in-law or husband will decide whether an ambulance should be called since there is a charge associated with it
- Some interviewees expressed concern about the long waits at government hospitals—up to two hours if a serious issue is not involved
- One of the health workers did try and call 1298 and even visited the 1298 office but was told the charge would be 800 rupees. That was too expensive, so she called a private hospital ambulance instead
- Interviewee related following experience: there was a fire, 1298 was called and the ambulance came and waited at the scene for no charge; no one was hurt
- Interviewee related following experience: their son was very sick; the government hospital called an ambulance and charged them 1,800 rupees; their son died.
- Interviewees related the following: sometimes they have to go to a government hospital since private hospitals will not take people who are “last stage”
- Interviewees confirmed that neighbors drive so their autos are already nearby and it is much faster to use them
- Interviewees said that it is hard to think in an emergency
- When community is well informed about 1298, word-of-mouth spreads that information further
- Hindu women are more talkative/open than those at the Muslim slum clinics; better health workers; and better informed about 1298
- No one takes an ambulance to or from the hospital when pregnant (although neither do women in Western countries)
- Knowledge is the biggest barrier
- People think that community ambulances are the same as 1298’s
- Even when people know that 1298 is the number for ambulance service they do not call—they think it takes too long, costs too much
- Many in slums will try to treat themselves first with their own first aid methods

Source: 1298 Company Presentation, “Exploration of the BPL Consumer Segment Living in Urban Slums in Mumbai,” July 21, 2009.

Exhibit 8A

Media Cost Estimates

1. COST FOR BILLBOARD - PRINTING AND MEDIA BUY

The average cost of a mobile billboard in Mumbai/Kerala (20X10 ft) is \$33 per sq ft / \$10-\$13 per sq ft.

The average cost of fixed billboards in Mumbai/Kerala (40X20 ft/40X10 ft/30X10 ft/30X15 ft) is \$26-\$550 per sq ft.

The cost of printing the billboard (vinyl) is approximately \$1 per sq ft.

2. COST TO PRODUCE AND AIR 30S TV SPOT

The cost to air a TV spot varies from \$1300 to \$5500 depending on the time of the airing and the channel.

The cost of production also varies heavily depending on the content of the advertisement. An elaborate 30-second ad with a top director can cost around \$110,000 to \$220,000. A locally made TV spot by smaller ad agencies will cost around \$4,400 to \$11,000.

3. WALL PAINTINGS

Wall paintings are approximately \$44 per month to rent the space/\$7 for the labor involved in the painting.

4. PRINTING AND DESIGN OF THE RAIL PASSES

Printing of rail passes costs around \$.04 per pass cover. The design was done free of cost for 1298, but an advertising agency would charge around \$330 to \$505.

Source: Case writer estimates

Exhibit 8B

Media Cost Estimates – Historic Cost of Newspaper Advertisements

No	Date	Newspaper	Height x Breadth	Rate per sq cm (US\$)	Cost (US\$)
1	10th January 2008	DNA	13.5 cm x 17.5 cm	20.87	4,948.20
2	3rd February 2008	Hindustan Times	14 cm x 20 cm	18.67	5,247.21
3	8th February 2008	Hindustan Times	19 cm x 15.5 cm	18.67	5,518.94
4	9th February 2008	Times of India	2.5 cm x 8.5 cm	32.96	702.75
5	12th February 2008	Danik Jagran	20 cm x 25.5 cm	12.3	6,296.65
6	14th February 2008	Nav Bharat Times	9 cm x 8 cm	7.47	539.71
7	16th February 2008	Divya Bhaskar	19 cm x 8 cm	5.38	821.03
8	18th February 2008	Hindustan Times	10 cm x 12 cm	18.67	2,248.80
9	6th March 2008	Hindustan Times	25 cm x 14 cm	18.67	6,559.01
10	9th April 2008	Saamna	5 cm x 28 cm	4.39	617.32
11	10th April 2008	Loksatta	14.5 cm x 21 cm	5.38	1,644.77
12	17th June 2008	Economic Times	21 cm x 27.5 cm	32.96	19,098.31
13	26th July 2008	DNA	13.5 cm x 19 cm	20.87	5,372.33
14	3rd August 2008	DNA	14 cm x 17.5 cm	20.87	5,131.46
15	6th August 2008	Loksatta	6.5 cm x 10 cm	5.38	351.10
16	30th August 2008	Mint	11.5 cm x 29.5 cm	9.89	3,365.77
17	8th October 2008	Saamna	8.5 cm x 5.5 cm	4.39	206.14
18	8th October 2008	Nav Bharat Times	3.5 cm x 5 cm	7.47	131.18
19	8th October 2008	Sakaal	2 cm x 12 cm	4.39	105.83
20	8th October 2008	Divya Bhaskar	14.5 cm x 17.5 cm	5.38	1,370.64
21	8th October 2008	Hindustan Times	23 cm x 7 cm	14.28	2,307.23
22	8th October 2008	Indian Express	11 cm x 26.5 cm	9.89	2,892.03
23	8th October 2008	Lokmat	14.5 cm x 20.5 cm	7.36	2,195.42
24	8th October 2008	Nav Bharat Times	14.5 cm x 22.5 cm	7.47	2,445.58
25	8th October 2008	Yuva	18 cm x 18.5 cm	4.39	1,468.34
26	8th October 2008	Times of India	23 cm x 8 cm	32.96	6,085.00
27	8th October 2008	Gujarat Samachar	14.5 cm x 20.5 cm	3.95	1,179.63

Source: Case writer estimates