India: Assessing the Reach of Three SEWA Health Services Among the Poor

M. Kent Ranson, Palak Joshi, Mittal Shah, and Yasmin Shaikh

October 2004
Health, Nutrition and Population (HNP) Discussion Paper

This series is produced by the Health, Nutrition, and Population Family (HNP) of the World Bank's Human Development Network. The papers in this series aim to provide a vehicle for publishing preliminary and unpolished results on HNP topics to encourage discussion and debate. The findings, interpretations, and conclusions expressed in this paper are entirely those of the author(s) and should not be attributed in any manner to the World Bank, to its affiliated organizations or to members of its Board of Executive Directors or the countries they represent. Citation and the use of material presented in this series should take into account this provisional character. For free copies of papers in this series please contact the individual author(s) whose name appears on the paper.

Enquiries about the series and submissions should be made directly to the Managing Editor. Submissions should have been previously reviewed and cleared by the sponsoring department, which will bear the cost of publication. No additional reviews will be undertaken after submission. The sponsoring department and author(s) bear full responsibility for the quality of the technical contents and presentation of material in the series.

Since the material will be published as presented, authors should submit an electronic copy in a predefined format (available at www.worldbank.org/hnppublications on the Guide for Authors page). Drafts that do not meet minimum presentational standards may be returned to authors for more work before being accepted.

The Managing Editor of the series is Joy de Beyer (jdebeyer@worldbank.org). The Editor in Chief for HNP publications is Alexander S. Preker (apreker@worldbank.org). For information regarding this and other World Bank publications, please contact the HNP Advisory Services at healthpop@worldbank.org (email), 202-473-2256 (telephone), or 202-522-3234 (fax).

© 2004 The International Bank for Reconstruction and Development / The World Bank
1818 H Street, NW
Washington, DC 20433
All rights reserved.
Health, Nutrition and Population (HNP) Discussion Paper

India: Assessing the Reach of Three SEWA Health Services among the Poor

Kent Ranson\textsuperscript{a}, Palak Joshi\textsuperscript{b}, Mittal Shah\textsuperscript{b} and Yasmin Shaikh\textsuperscript{b}

\textsuperscript{a} Health Policy Unit, London School of Hygiene and Tropical Medicine, and Self-Employed Women’s Association Insurance (SEWA) London, England
\textsuperscript{b} Self-Employed Women’s Association Insurance (SEWA), Ahmedabad, India

Abstract: This is a study of how well health and related services provided by a large, prominent Indian non-governmental organization have reached the very poor. The Self-Employed Women’s Association (SEWA) is a trade union of informal women workers located in Gujerat State. The services are three primary components of SEWA’s health program: its mobile reproductive health camps, tuberculosis detection and treatment program, and women’s education program.

The project’s quantitative component compared the economic status of women attending each of the three services with that of the general population. Information about the economic status of approximately 1,500 women attending the services was collected through interviews at service provision sites. Information on the general population’s economic situation came from pre-existing household data sets: a Demographic and Health Survey (DHS), and a survey by SEWA’s insurance project.

In urban areas, all three SEWA services were used predominantly by people from poorer households; about half the clients of each service belonged to the poorest third of the population. In rural areas, the economic status of those who used the two services offered (reproductive health and women’s education) did not differ significantly from that of the general population.

The project’s qualitative component featured focus group discussions about the reasons why the services did or did not reach the poor groups for whom they were designed. In urban areas, the reasons identified for the services’ attractiveness to the poor included proximity, delivery (in part) by the poor themselves, promotion efforts in poor communities, relatively low cost, and SEWA’s favorable reputation. The barriers identified in rural areas were the timing of service, which coincided with working hours, and the services’ perceived high cost.

Keywords: India, Gujerat, Self-Employed Women’s Association, SEWA, health service inequality, tuberculosis, reproductive health

Disclaimer: The findings, interpretations and conclusions expressed in the paper are entirely those of the authors, and do not represent the views of the World Bank, its Executive Directors, or the countries they represent.
Correspondence Details: Kent Ranson, Keppel Street, London, WC1E 7HT, England. Telephone: +44 207 927 2431. Fax: +44 207 637 5391. Email: kent.ranson@lshtm.ac.uk.
This discussion paper is one in a series presenting the initial results of work undertaken through the Reaching the Poor Program, organized by the World Bank in cooperation with the Gates Foundation and the Governments of Sweden and the Netherlands.

The Reaching the Poor Program is an effort to begin finding ways to overcome social and economic disparities in the use of health, nutrition, and population (HNP) services. These disparities have become increasingly well documented in recent years. Thus far, however, there has been only limited effort to move beyond documentation to the action needed to alleviate the problem.

The Program seeks to start rectifying this, by taking stock of recent efforts to reach the poor with HNP services. The objective is to determine what has and has not worked in order to guide the design of future efforts. The approach taken has been quantitative, drawing upon and adapting techniques developed over the past thirty years to measure which economic groups benefit most from developing country government expenditures. This discussion paper is one of eighteen case studies commissioned by the Program. The studies were selected by a professional peer review committee from among the approximately 150 applications received in response to an internationally-distributed request for proposals. An earlier version of the paper was presented in a February 2004 global conference organized by the Program; the present version will appear in a volume of Program papers scheduled for publication in 2005, Reaching the Poor with Effective Health, Nutrition, and Population Services: What Works, What Doesn’t, and Why.

Further information about the Reaching the Poor Program is available at the following sites:

**Program Overview:**
http://www1.worldbank.org/prem/poverty/health/rpp/overview.htm

**List of Papers Commissioned by the Program:**

**Presentations at the Program Conference:**
ACKNOWLEDGMENTS

This work was funded by the World Bank under its Reaching the Poor Program. Guidance and supervision were provided by Ms. Mirai Chatterjee, Coordinator, SEWA Social Security. The authors wish to thank the many SEWA staff and members who have contributed to this study. The following SEWA staff were directly involved in data collection, analysis and/or entry:

- **Supervisors:** Jayshree Shinde
- **Grassroot Researchers:** Bhartiben Parmar, Chandrikaben Solanki, Niruben Makwana, Padmaben Anjaria, Rajeshwariben Bhatt, Roshan Bhayani
- **Data entry:** Kinnari Shah, Smita Panchal
- **SEWA Academy team:** Bijalben Rawal, Mitaben Parikh
- **Video SEWA team:** Arunaben Parmar, Dakshaben Mehta, Darshaben Parmar, Leelaben Dantani, Manjulaben Raval and Neelamben Shah
- **The entire SEWA health team.**

This chapter is a condensed version a study prepared for the World Bank’s Thematic Group on Health, Nutrition and Population and Poverty. The full study is available from the authors upon request.

The authors are grateful to the World Bank for publishing the study as an HNP Discussion Paper.
The Self-Employed Women’s Association (SEWA) and Health Care Needs of Poor Women

The Self-Employed Women’s Association (SEWA) is a trade union of informal women workers, started by Ela Bhatt in Ahmedabad in 1972. Headquartered in Ahmedabad (Gujarat, India), and inclusive of members from 9 of the state’s 19 districts, “It is an organization of poor, self-employed women workers. These are women who earn a living through their own labor or small businesses. They do not obtain regular salaried employment with welfare benefits like workers in the organized sector. They are the unprotected labor force of (India)” (Self-Employed Women's Association 1999). The organization has two main goals: to organize women workers to achieve full employment and to make them individually and collectively self-reliant, economically independent, and capable of making their own decisions.

Illness, disability, and death are a major threat to the overall security of SEWA members. Hence, almost since its inception, SEWA has provided preventive and primary health care, in one form or another. Unlike many of the other SEWA’s services (e.g., savings and credit through SEWA Bank and insurance through Vimo SEWA), the services provided by SEWA Health are available to SEWA members—more than 469,000 of them in Gujarat state—and nonmembers alike. Providing health services to the very poor, particularly those living in areas not otherwise served by government or nongovernmental organizations (NGOs), has been a primary objective of SEWA. The challenges of providing health care services to this poor, largely illiterate, and geographically dispersed population are many.

In India, as elsewhere, the poor die earlier and to have higher levels of morbidity than the better-off (World Bank 2003). This reflects the fact that the poor face many constraints in accessing health care services. In theory, government provision of health care should cover the poor, but in practice if often does not. This leaves health policymakers and donors with the vexing problem of identifying and overcoming constraints faced by the poor in accessing health care. Health care provision through nongovernmental organizations—or member-based organizations or community-based organizations, or people’s organizations—has been suggested as one means of “reaching the poor” (Pachauri 1994).

Research Questions

The purpose of this study is to determine whether three primary components of SEWA Health—the mobile reproductive health camps, the tuberculosis detection and treatment program, and the women’s education program—have succeeded in reaching the very poor.

1 In 2001, several districts in the state were “bifurcated,” such that the number of districts increased from 19 to 25. Today, SEWA works in 11 (rather than 9) of these 25 districts. However, to facilitate comparison with the DHS 1998–99, we will refer to the 19 districts as they existed prior to 2001.
Health Services Available in the Study Area

District-specific data on health services availability and utilization are limited—especially regarding the practice of private and unqualified practitioners. In Gujarat, relative to all-India, there is a thriving private-for-profit health care sector. The problems with publicly and privately provided care are the same in Gujarat as elsewhere in India: a large but underfunded public sector, a fast-growing but unregulated private sector, and high out-of-pocket expenditures by patients (Peters, Yazbeck et al. 2002).

Most people, both in urban and in rural Gujarat, use the private sector for outpatient and inpatient services. According to the 1995–96 National Sample Survey Organization (NSSO) survey, 81.8 percent of outpatient treatments among rural residents were taken from private sector providers, as were 76.3 percent in rural areas. The private sector accounted for 71.0 percent of hospitalizations in urban Gujarat and 67.4 percent in rural Gujarat (Mahal, Singh et al. 2000). Among the areas included in this study, the public health care system is strong only in Ahmedabad city, where four large government hospitals provide outpatient and inpatient care.

Distance and lack of financial resources are major barriers to health care seeking among the poor in Gujarat. In the districts covered in this study, health care (particularly curative, expensive, inpatient care) is widely available in urban centers. But for those who live in villages far from urban center, the closest source of allopathic care may be many hours away. “Twelve percent of rural women have to travel at least 5 km to reach the nearest health facility” (International Institute for Population Sciences and ORC Macro 2001).

SEWA’s Health Services

SEWA first became actively involved in the public health field in the early 1970s through health education and provision of maternity benefits. In the early 1980s, SEWA negotiated with the government of India for helping to distribute maternity benefits (ghee, a dairy product similar to butter, was provided in kind) to poor women. A focus of SEWA Health has always been to build capacity among local women, especially traditional midwives (dais), so that they become the barefoot doctors of their communities. Today, SEWA’s health-related activities are many and diverse, and include: primary health care, delivered through 60 stationary health centers and mobile health camps; health education and training; capacity building among local SEWA leaders and dais; provision of high-quality low-cost drugs through drug shops; occupational and mental health activities; and production and marketing of traditional medicines.

Equity has always been a key concern at SEWA Health. SEWA Union targets the poorest women workers—those who work in the informal sector. And SEWA Health aims to provide services to the poorest among SEWA Union’s members, particularly those who are living below the poverty line (less than US$1 per day). Administrators of SEWA Health were particularly interested in this study because of their desire to assess the
extent to which their services reach the poorest and to learn how the services might be better targeted. This study deals with three specific activities described in Table 1.

Table 1: Summary of the three SEWA Health services covered by the Reaching the Poor Study

<table>
<thead>
<tr>
<th>Variable</th>
<th>Reproductive Health mobile camps</th>
<th>TB detection and treatment</th>
<th>Women’s education sessions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Since (year)</td>
<td>1999</td>
<td>1999</td>
<td>1999</td>
</tr>
<tr>
<td>Target population</td>
<td>- Women of reproductive age</td>
<td>- Men and women of all ages</td>
<td>- Women of reproductive age</td>
</tr>
<tr>
<td>Geographic coverage</td>
<td>- Mainly Ahmedabad, Kheda and Patan Districts</td>
<td>- North and East Zones of Ahmedabad city (population roughly 375,000)</td>
<td>- Mainly Ahmedabad, Kheda and Patan Districts (but also the other districts where SEWA Union has members)</td>
</tr>
<tr>
<td>Annual rate of utilization</td>
<td>- About 12,500 women a year</td>
<td>575 patients under treatment at the DOTS center and 23 by barefoot DOTS workers</td>
<td>Approximately 6000 women per annum</td>
</tr>
<tr>
<td>Cost to user</td>
<td>- Rs. 5 consultation fee</td>
<td>- Services free, therefore indirect costs only</td>
<td>- Rs. 5 SEWA Union membership fee</td>
</tr>
<tr>
<td>- Medicines sold at wholesale price (approximately 1/3 of market price)</td>
<td>- 5 stationary centers (each with 2-3 staff) and 11 grassroots DOTS providers</td>
<td>- Government of India, UNFPA and Ford Foundation</td>
<td></td>
</tr>
<tr>
<td>External donor</td>
<td>- UNFPA and government of India</td>
<td>- WHO, government of India, and Ahmedabad Municipal Corporation</td>
<td>- 35 grassroots workers and full-time staff</td>
</tr>
<tr>
<td>Human resources currently devoted to activity</td>
<td>- 6 part-time physicians - 50 barefoot doctors and managers</td>
<td>- 5 stationary centers (each with 2-3 staff) and 11 grassroots DOTS providers</td>
<td>- Government of India, UNFPA and Ford Foundation</td>
</tr>
</tbody>
</table>

SEWA: Self-Employed Women’s Association; DOTS: directly observed treatment, short course.
Source: Authors.

The size of SEWA Health’s target population varies somewhat by service. For example, TB detection and treatment is delivered to men and women of all ages in two of Ahmedabad city’s five zones (Table 1). Other services, such as the reproductive health (RH) mobile camps and the women’s education sessions target women of reproductive age, and particularly those who are SEWA Union members. SEWA Union’s total membership in Gujarat state is 469,306. In the areas covered under this study, membership is 153,813 in Ahmedabad city, 30,219 in Ahmedabad district (excluding Ahmedabad city), and 100,316 in Anand/Kheda district.

Reproductive health (RH) mobile camps. In response to demand from people in remote and under-serviced areas, SEWA Health began organizing mobile health camps in 1999. These camps typically address a certain set of illnesses, for example, general eye-health, male reproductive tract infections, female reproductive and child health (RCH). The RH

2 The focus of this chapter is on adult women users of the reproductive and child health camps. For this reason, these camps are referred to as “reproductive health (RH) mobile camps” throughout the chapter.
mobile camps are the most frequently conducted and will be the focus of this study. RH mobile camps are carried out mainly in Ahmedabad city and district and Kheda and Patan districts and are funded largely by the United Nations Population Fund (UNFPA) and the government of India. More than 35 camps are carried out per month, and the attendance per camp is 60 (roughly equal numbers of women and children) for a total of more than 12,500 adult patients a year. Health care at the camps is provided by impaneled physicians and 50 barefoot doctors and managers. SEWA Health camps are repeated in each area, on average, once a year.

Activities at the RH mobile camps include education and training, examination and diagnostic tests (including cervical examination and Pap smears), treatment, referral and follow-up. Camps are usually held during the afternoon, and their duration is three to four hours. Those attending the camps are asked to pay a Rs. 5 contribution and one-third of the total cost of medicines provided, although even these fees may be waived for those who are very poor.

Increasingly (particularly in rural areas) SEWA Health conducts these camps in collaboration with the government of Gujarat, at the primary health centers (PHCs), which are usually located in or near small villages. These camps differ from the standard “area” camps (described above) insofar as medicines are given for free, the range of medicines differs (medicines here are restricted to the government’s formulary), and health care is provided by public doctors and nurses. Free transportation is provided by SEWA to women living in neighboring villages.

*Tuberculosis detection and treatment.* Since 1999, SEWA Health has collaborating with the World Health Organization (WHO), the government of India, and the Ahmedabad Municipal Corporation in providing directly observed treatment, short course (DOTS) for tuberculosis to residents of the North and East Zones of Ahmedabad (population of roughly 375,000). These Zones were assigned to SEWA under the Revised National Tuberculosis Control Programme (RNTCP). These services are currently provided through five stationary centers (two of which include laboratory facilities) and 11 barefoot doctors. Patients are identified either through local education/information meetings or are referred from the government hospital in the area. Diagnostic services and medicines (which would otherwise cost from Rs. 7,000 to Rs. 9,000 per full course of treatment) are provided free of charge. To date, more than 4,000 people have received treatment for tuberculosis (4,135 through the stationary centers, and 230 from the barefoot DOTS workers). Among those overseen by the barefoot doctors, the dropout rate is almost nil, while the dropout rate at stationary centers is 7 percent. The sputum conversion rate among those who complete treatment is 97 percent.

*Women’s health education.* Apart from the education provided at health centers and health camps, SEWA Health organizes many health education sessions in the nine districts where SEWA is active (primarily in Ahmedabad district, Kheda, and Patan). In 2000/01, approximately 6,000 adult women participated in these sessions. These sessions are organized on demand by barefoot doctors and managers. Each education session lasts two days, and six different packages are offered to women: SEWA orientation; first aid;
general disease and HIV/AIDS; immunization and childcare; airborne and waterborne
diseases and tuberculosis; and “Know Your Body,” which focuses on sexual and
reproductive health. Each woman’s name and address is recorded, and she obtains a
certificate of participation attending all six sessions. In all, 35 grassroots trainers and full-
time staff provide education. These efforts are supported by the government of India,
UNFPA, Ford Foundation, and Macarthur Foundation.

Potential Constraints to Utilization of SEWA Health’s Services

Table 2 provides an overview of the conceptual framework that guided this study. It
divides the factors that may prevent SEWA Health from reaching the poorest of women
into “demand side” factors (characteristics of individuals/groups in the target population)
and “supply side” factors (characteristics of SEWA Health).

Table 2: Demand and supply side factors that may limit SEWA Health’s reach
among the poor

<table>
<thead>
<tr>
<th>Demand side</th>
<th>Supply side</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) Time constraints (e.g. work, domestic chores or child-care commitments)</td>
<td>(1) Inappropriate timing (e.g., conflicts with working hours)</td>
</tr>
<tr>
<td>(2) Lack of transportation to/from the service</td>
<td>(2) Inaccessible location</td>
</tr>
<tr>
<td>(3) Lack of information/knowledge about the service (both not knowing about the service and not understanding the potential benefit of the service)</td>
<td>(3) Problems with service quality (e.g., not user friendly)</td>
</tr>
<tr>
<td>(4) Perceived cost (direct costs of the service or indirect costs of transportation)</td>
<td>(4) Failure to adequately advertise and promote the services (including among those who are homebound due to a disability and those who do not leave the home for work)</td>
</tr>
<tr>
<td>(5) Fear (e.g., of high costs, condescending doctors, being asked to read something)</td>
<td>(5) Fees/medicine costs too high</td>
</tr>
<tr>
<td>(6) Lack of trust in SEWA Health</td>
<td>(6) Indirect costs associated with the treatment (e.g., time lost from work) too high</td>
</tr>
<tr>
<td>(7) Belief that health is not important</td>
<td>(7) Infrequent visits by mobile camps</td>
</tr>
<tr>
<td>(8) Lack of positive self-concept (e.g., women may seek care for husbands and children but not for themselves)</td>
<td></td>
</tr>
<tr>
<td>(9) Perceived poor quality of services</td>
<td></td>
</tr>
</tbody>
</table>

SEWA Self-Employed Women’s Association.

Source: Authors.

Methodology

The research was carried out in two districts—Ahmedabad district (population 5.8
million, including Ahmedabad city, 2001 Census) and Kheda/Anand district (3.8
million)—where SEWA Health functions most intensively.

Data for the study were collected in three phases. During Phase 1, qualitative data were
collected to explore whether there were constraints to utilization of SEWA Health
services by those of low socioeconomic status (SES), and if so, the nature of these
constraints. During the second phase, quantitative data exit-survey data were collected to
assess the SES of SEWA Health service users and compare this to the SES of nonusers
and the population on the whole. During the third and final phase, in-depth interviews were conducted with SEWA Health workers to explore factors underlying the success of the urban health services.

**Phase 1**

Six focus group discussions (FGDs) among SEWA Health’s target population and six in-depth interviews with SEWA Health functionaries were undertaken. Two interviews of each type were conducted for each of the three SEWA Health services being studied.

The FGDs were held in poor areas—either slums in Ahmedabad city or poor rural areas—and each included four women. For each FGD, we purposefully selected two women, of reproductive age, who had recently used the SEWA Health service, and two women living in adjacent (or nearly adjacent) homes, who had not used the service. To be eligible to participate, women had to be willing to spend at least one hour in the FGD at the assigned time (and at a place within their residential area). Within these poor areas, no attempt was made to select the poorest women. Any attempt to exclude the “nonpoor” from the interviews would have been entirely subjective, because we had not developed any objective indicators of socioeconomic status (in fact, that was one of the objectives of these FGDs).

The FGD commenced with a participatory wealth-ranking exercise. Women then discussed whether, and why, the poorest women/households in their area had difficulty in accessing the SEWA Health service.

In-depth interviews were conducted with the SEWA Health “grassroots” service providers. These women were asked to describe their work with SEWA Health and to discuss problems faced by the poor in accessing SEWA Health’s services.

FGDs and in-depth interviews were conducted in Gujarati. With the permission of respondents, they were videotaped. They were later translated into English and transcribed by the interviewer. The transcribed interviews were coded, applying predefined codes, using N-Vivo software.

**Phase 2**

*Sample size.* We aimed to interview 500 people making use of each of the three SEWA Health services, for a total of 1,500 interviews. We estimated the necessary sample size using proportions. For this calculation, we decided to look at whether the proportion of SEWA Health users falling below the 30th decile—which roughly approximates the poverty line in Gujarat—was significantly different from 30 percent. The standard error for the proportion of SEWA Health users below the 30th decile would be highest for a value of 50 percent. To achieve a 95 percent confidence interval of <5 percent, i.e., of 47.5 percent to 52.5 percent, a total of 385 observations per service would be required. Our sample sizes were well above this figure.
Questionnaire. The questionnaire includes questions about: the service user; family characteristics; household assets, utilities, dwelling and land ownership; and several questions about their perceptions of the SEWA Health service used. We were careful to include all questions about households assets, utilities, dwelling and land ownership that were included in the DHS 1998–99 Survey in Gujarat state. The wording of the questions asked was identical to the wording in the DHS Survey, and our interviewers were trained using the DHS instruction manuals.

The questionnaires were administered by six female grassroots researchers, who received more than two weeks of training. Pilot testing was conducted for one week, with each researcher administering between 8 and 10 questionnaires. Throughout the survey, all questionnaires were carefully checked by two field-supervisors.

Sampling. Methods of sampling varied slightly between the three SEWA Health services in order to capture as random a set of respondents as possible.

In the case of RH mobile camps, a list of camps planned for a one-month period was made (camps operate Monday through Saturday). The number of camps ranged from one to three per day. For each day, one camp was randomly selected (if only one camp was planned, this camp was automatically selected), and all users at these selected camps were interviewed. After completing the five-hundredth interview, we continued interviewing until all respondents at the final camp had been interviewed; thus, we ended up with a sample greater than 500.

For the women’s education sessions, we received the schedule one week at a time. The number of camps ranged from three to four per day. Each day, two sessions were randomly selected, and all users at the selected sessions were interviewed. (Again, this resulted in a sample slightly greater than 500.)

For the TB detection and treatment services, the interview team was divided to cover the five TB DOTS centers. The list of patients kept by the centers was found to include many people who had either discontinued, or completed, their course of medication; these lists were thus deemed inappropriate for sampling. Over approximately four weeks, all people presenting to these centers were interviewed, resulting in a sample size substantially greater than 500.

Reinterviews. To check the reliability of responses, we reinterviewed approximately 10 percent of all respondents, both in urban and rural areas. The reinterviews were generally conducted within 72 hours of the first interview, at the respondent’s home and by a different interviewer from the one who conducted the first interview.

Data entry and analysis. Questionnaire data were double-entered into a custom-made EpiInfo database. Data were analyzed using STATA statistical software.

---

7 The full questionnaire and detailed technical appendixes are included in a longer version of this chapter, which can be obtained from the authors.
Socioeconomic status (SES) indices were constructed, based on factor analysis of a reference standard database. These SES indices were then applied to the users surveyed in our study. Urban and rural data were analyzed separately—based on our belief that the indicators of wealth vary markedly between urban and rural Gujarat.

For the urban sample, we chose between three reference databases: DHS 1998–99 all urban Gujarat state (N = 1,709), DHS 1998–99 Ahmedabad city (N = 476), and a Vimo SEWA 2003 database for Ahmedabad city (N = 746). Based on comparisons between these databases, we chose to use Vimo SEWA 2003 as the reference standard. A small number of variables (available both in the Vimo SEWA database and from our exit surveys) were dropped from analyses, based on comparisons between the DHS and Vimo SEWA databases, as it was felt that differences between the databases (with respect to these specific indicators) resulted from limited reliability of the indicator, rather than changes in socioeconomic conditions in Ahmedabad city during this five-year period.

Similarly, for our rural sample, we chose between three reference databases: DHS 1998–99 all rural Gujarat state (households from 19 districts, N = 2,223), DHS 1998–99 for only the 2 districts where our exit surveys were conducted (N = 309), and a Vimo SEWA 2003 database for 9 rural Gujarati districts (this includes the 2 districts where we conducted exit surveys, N = 784). Ultimately, it was impossible for us to choose between the DHS 1998–99 database for all rural districts and the Vimo SEWA 2003 database, so we have used both, in turn, as reference databases, and tested the sensitivity of results to choice of database.

**Phase 3**

Six in-depth interviews were conducted with the SEWA Health grassroots managers. These women were asked to describe their work with SEWA Health and to discuss whether, and why, they think that SEWA Health services have succeeded in reaching poorer residents of Ahmedabad city.

Theses interviews were conducted in Gujarati and were audiotaped. They were later translated into English and transcribed by the interviewer. The transcribed interviews were coded, applying predefined codes, using N-Vivo software.

**Nature and Source(s) of Data**

This section briefly describes the two reference databases—1998–99 Demographic and Health Survey (DHS) and 2003 Vimo SEWA (SEWA Insurance)—that provided information on the socioeconomic status of the general population.
**DHS Database**

The SES indices were derived from the 1998–99 DHS, also known as the National Family Health Survey–2 or NFHS–2. Data were collected by the International Institute for Population Sciences (IIPS), Mumbai. This survey (IIPS 2001) was a follow-up to the first National Family Health Survey (NFHS–1), conducted in 1992–93. The primary aim of NFHS–2 was to provide state-level (and national-level) information on fertility, family planning, infant and child mortality, reproductive health, child health, nutrition of women and children, and the quality of health and family welfare services and to examine this information in the context of related socioeconomic and cultural factors.

A total of 4,153 households were selected in Gujarat. Rural and urban areas were sampled separately. The rural sample was selected in two stages: the selection of 87 villages (or groups of villages, in the case of small, linked villages), with probability proportional to population size (PPS) in the first stage, followed by the selection of households (15 to 60) within each village in the second stage. In urban areas, a three-stage sampling procedure was followed. In the first stage, 46 wards were selected with PPS. From each selected ward, one census enumeration block was selected with PPS in the second stage, followed by selection of households using systematic sampling with each selected enumeration block in the third stage.

**Vimo SEWA (or SEWA Insurance) Data**

The Vimo SEWA data were collected in May through August, 2003, under a joint project being carried out by Vimo SEWA (SEWA Insurance) and the London School of Hygiene and Tropical Medicine and funded by the Wellcome Trust. This survey was part of baseline work intended to assess the socioeconomic status of Vimo SEWA members (in comparison to the general population), prior to implementing interventions intended to optimize the equity impact of the scheme. The Vimo SEWA questionnaire was based on a standardized tool developed by the International Food Policy Research Institute (IFPRI), to measure the poverty of microfinance institution clients (Henry, Sharma et al. 2000). The questionnaire included sections on: dwelling-related indicators (size and condition of dwelling and facilities available); family structure; food-related indicators; and other asset-based indicators.

This survey was administered at 800 households in Ahmedabad city and 800 households in the nine rural districts of Gujarat where Vimo SEWA has members. Two-stage random cluster sampling was used. In Ahmedabad city, 50 enumeration blocks (out of 10,385) were first randomly sampled. Within each enumeration block, 16 households were randomly selected from the enumeration block maps (2001 Census). In rural Gujarat, 50 towns/villages were randomly sampled, with PPS (1991 Census) of the town/village. As in Ahmedabad, 16 households within each town/village were randomly sampled from enumeration block maps.
Findings about Distribution

The socioeconomic status of SEWA Health service users is compared with that of the general population, first for urban and then rural areas.

**Urban Findings**

For all three services in urban areas, the mean SES scores of the users are significantly lower than the mean SES score (by definition, 0) of the general population (reference population: Ahmedabadis in the Vimo SEWA survey, 2003). The mean SES scores are –0.42 for RH camp users (95 percent CI = –0.51 to –0.34), –0.36 for TB detection and treatment users (95 percent CI = –0.43 to –0.29), and –0.61 for women’s education participants (95 percent CI = –0.88 to –0.35).

As can be seen in Figure 1, the percentage of users falling below the thirtieth decile of the SES score—which roughly approximates the poverty line in India—was roughly half for all of the services. The percentage of users falling below the thirtieth decile was 51.9 percent for RH camp users (95 percent CI = 46.7 percent to 57.0 percent), 47.4 percent for TB detection and treatment users (95 percent CI = 43.5 percent to 51.2 percent), and 47.5 percent for women’s education participants (95 percent CI = 36.2 percent to 59.0 percent).

**Figure 1: Frequency distribution of urban SEWA Health users, by deciles of the SES index score**

Source: Authors.
The concentration curves for all three services suggest that SEWA Health services are equitably distributed in Ahmedabad city, that they are predominantly used by people from poorer households (Figure 2). All three concentration curves lie well above the line of equality. The concentration indices are −0.37 for RH mobile camps, −0.33 for TB detection and treatment, and −0.37 for women’s education sessions.

**Figure 2: SEWA Health service utilization concentration curves, Ahmedabad city**

![Concentration Curves](image)

*Source: Authors*

Of the urban users, 104 were reinterviewed at their homes. The index scores for these reinterviews correlate highly with scores based on the original interviews. A paired t-test shows no significant difference, first interview to reinterview, p = 0.25.

**Rural Findings**

The mean SES scores of RH camp users do not differ significantly from the mean score for the general population, regardless of which reference standard database is used. Relative to the Vimo SEWA 2003 database, but not the DHS 1998–99 database, the women’s education participants have a significantly higher mean SES score. Using the Vimo SEWA 2003 database as reference standard, the mean SES scores are 0.024 for RH camp users (95 percent CI = −0.054 to 0.10) and 0.19 for women’s education participants (95 percent CI = 0.12 to 0.27). Using the DHS 1998–99 database (all 19 rural districts) as reference standard, the mean SES scores are −0.068 for RH camp users (95 percent CI = −0.14 to 0.0082) and 0.068 for women’s education participants (95 percent CI = −0.0086 to 0.15).
Figure 3 shows the frequency distribution of rural SEWA Health users, by deciles of SES index score, for both of the reference standards. Users of both the RH camps and the women’s education sessions are significantly less likely to fall below the 30\textsuperscript{th} percentile than are households in the general population. With Vimo SEWA 2003 as the reference standard, only 5.7 percent of RH camp users (95 percent CI = 2.6 percent to 10.5 percent) and 8.5 percent of women’s education participants (95 percent CI = 6.0 percent to 11.6 percent) fall below the 30\textsuperscript{th} percentile. Similarly, with DHS 1998-99 as the reference standard, 8.2 percent of RH camp users (95 percent CI = 4.5 percent to 13.7 percent) and 16.4 percent of women’s education participants (95 percent CI = 13.0 percent to 20.2 percent) fall below the 30\textsuperscript{th} percentile.

The concentration curves for both services—like the frequency distributions above—suggest that SEWA Health’s rural services do not effectively target the very poorest (Figure 4). The concentration indices (using Vimo SEWA 2003 as the reference standard) are 0.091 for RH mobile camps and 0.16 for women’s education sessions. (Concentration curves and indices using DHS 1998–99 as the reference standard are very similar, and thus are not presented here.)

**Figure 3: Frequency distribution of rural SEWA Health users, by deciles of the SES index score**

![Frequency distribution charts](image)

*Source: Authors.*
Of the rural users, 60 were reinterviewed at their homes. The index scores for these reinterviews correlate highly with scores based on the original interviews. A paired t-test shows no significant difference, first interview to reinterview, p=0.286.

Findings about Reasons for the Distribution

Based on focus group discussions with SEWA Health “users” and “nonusers,” and in-depth interviews with SEWA Health functionaries, this section will explore: factors that underlie SEWA Health’s success in reaching the poor of Ahmedabad city; and the nature of constraints to utilization of SEWA Health services by those of low SES (particularly in rural areas).

A variety of factors seem to underlie SEWA Health’s success in reaching the poor of Ahmedabad city. Several SEWA Health workers attributed the scheme’s success in reaching the poor to the fact that it treats poor people with respect and “warmth”:

“… the patients say that, ‘at other places, people don’t listen to us, and respond to us, like you do.’ Since this is SEWA’s center, they choose to come here.”
(SEWA Health TB grassroots worker, Amraiwadi, Ahmedabad city)
“Other organizations do not give out detailed information the way the SEWA workers do. We treat the women like they are our family members. The members say that, ‘Compared to other organizations, you work closely and warmly with us.’ They say, ‘We need warmth, and the rich people cannot give us that.’”

(SEWA Health grassroots worker, Dholka, Ahmedabad district)

The fact that the services are generally free, or low cost, makes them more accessible to the poor:

“When we made home visits, we saw that the patients did not even have money for food. Then we explained to the patients that, ‘It is okay if you don’t have money. You don’t have to spend any money at the (TB DOTS) center. If you take medicines and get cured, then you will be able to earn money.’”

(SEWA Health TB grassroots worker, Amraiwadi, Ahmedabad city)

“…and the medicines (at RH mobile camps) are also good and low cost. The same medicines are available for Rs. 200 to Rs. 250 outside (in private drug shops) but we give them for Rs. 20 or Rs. 25 in our health camps.”

(SEWA Health grassroots worker, Daskroi taluka, Ahmedabad district)

Convenient timing was cited as contributing to the success of the TB detection and treatment services:

“The hours of the center are good, since the patients have to go to work early, and our center operates from 7:30 in the morning to 4 in the afternoon.”

(SEWA Health TB grassroots worker, Amraiwadi, Ahmedabad city)

Physical location—the fact that services are delivered “to their doorsteps”—was seen as contributing to the success of all SEWA Health services:

“… Another reason being that we go right to their doorsteps, and we discuss their problems and the positive happenings in their lives.”

(SEWA Health grassroots worker, Daskroi taluka, Ahmedabad district)

“We provide a convenient location to the patient, telling them that, ‘This is an easy location for you to come and take the medicines.’”

(SEWA Health TB grassroots worker, Amraiwadi, Ahmedabad city)

Finally, the fact that SEWA Health’s services are delivered largely by women was also perceived as increasing the reach among poor women:

“We give our introduction as a union of self-employed women, which means poor women. So the women think that, ‘Since this is a women’s organization, wherever we go we will be dealing with women,’ and so they feel secure.”

(SEWA Health grassroots worker, Daskroi taluka, Ahmedabad district)
“For area (RH mobile) camps we get female doctors for the women, which is very good, and more and more women attend because of this. Since there is a female doctor, they feel secure…”

(SEWA Health grassroots worker, Daskroi taluka, Ahmedabad district)

*The cost of services (or the perceived cost of services) is, at times, a barrier to using the RH mobile camps.* In one interview, women explained that, on hearing that some charge is being levied for the medicines, the poorest simply would not come:

1: Since it is an issue of money they don’t come… Some people would like to come to get the medicines. But then they would wonder as to whether it would cost them. Then they would not come.

*Interviewer:* But then you would have the information that the medicines are at low cost?

1: That they [the health workers] would inform, but then it would cost at least something… So when they hear this some people would not come.

(FGD6: Varna village, Dholka Taluka, Ahmedabad district)

For some, even the Rs. 5 registration fee is enough to prevent utilization:

*Interviewer:* There were other women in the area who said they wanted a check up (as mentioned earlier by one woman). What happened to them?

2: I had five or six other women with me. But then they all left. They said that “they ask for money over here” so they all left.

*Interviewer:* But then it was Rs. 5?

1: The situation is not good.

2: Where to get Rs 5 from?

(FGD5: Chamanpura Area, Ahmedabad city)

Even the SEWA Health grassroots workers acknowledged that the fees charged at the RH mobile camps prevent some from using them:

*Grassroots worker:* No we cannot provide free medicines for half of these people. Only around two to three women (per camp) are able to get it for free.

*Interviewer:* So what about the rest?

*Grassroots worker:* They don’t come!

*Interviewer:* They would not visit at all?

*Grassroots worker:* No, they would not come to the camp. We cannot tell everyone that we will get them medicines for free!

(IN-DEPTH 4: Gangad Village, Bawla Taluka, Ahmedabad district)

Women also reported that the RH mobile camps are difficult for women to attend, as they often coincide with hours of work:
Interviewer: What are the reasons why people who should ideally visit the camp are not able to do so?
Grassroots worker: At times there is a season in the village [presumably referring to seasons when there is work in the fields]. Then these women go to do work. Because of which they cannot come [to the camps]. If the work is going on, and the women have gone for that, can they come [to the camps]?
(IN-DEPTH 3: Vanoti Village, Thasra Taluka, Kheda District)

Grassroots worker: Mostly the poorest of women would go out and do work [for daily wages]. They would say that “I will have to lose my wages [to be able to attend the camp].
(IN-DEPTH 4: Gangad Village, Bawla Taluka, Ahmedabad district)

For the health education sessions, the fact that the timing may coincide with work was reported as a major barrier to access:

Interviewer: What are the reasons why some women would not sit in the training?
Grassroots worker: If the woman has gone to work. She would come for the first and the second session, but then if she starts working after that she is not able to sit for the training. She would tell us that, “since I have started working I cannot sit.”
(IN-DEPTH 1: Shankarbhuvan, Ahmedabad city)

Interviewer: So are the women of very poor category [as classified in the FGD] also able to take advantage [of the training sessions]?
Grassroots worker: …When we went to give this training they [the women] told us that you should keep it for two days only, because if we have to go and work outside then how can we sit in your training?
(IN-DEPTH 3: Vanoti Village, Thasra Taluka, Kheda District)

Interviewer: In our women’s education program, are the very poor women able to come?
Grassroots worker: The very poor women are not able to sit. But if we do the training at night, only then they are able to sit with us. Because during the day, they have to go to do work. Hence the very poor women are not able to sit in our trainings… So they would say, “Please come at night.”
(IN-DEPTH 4: Gangad Village, Bawla Taluka, Ahmedabad district)

The health education sessions are unique among the services studied, in that a full course consists of 12 days of training (2 days per month) spread over six months. Any barrier to access may prevent women from attending the training sessions entirely or may prevent them from attending the full 12 days of training.
Limitations

This section highlights some of the key methodological weaknesses (and strengths) of the study.

Reference Standard Databases

When our draft questionnaire was conceived, it was assumed that our sole reference standard database would be the DHS 1998–99. Thus, we were restricted, by the contents of the DHS questionnaire and database, in terms of the kinds of assets (and household characteristics) that could be included in the SES index. For example, it was noted during our fieldwork that the wealth of rural households in Gujarat can be measured by their possession of kitchen utensils such as brass and steel plates (thalis) and water vessels. However, because this was not included in the DHS questionnaire, it could not be examined as an indicator in our study. Similarly, variables relating to food security and household spending on clothing and footwear—variables found in other studies to be reliable indicators of socioeconomic status—were not available in the DHS database.

Our analyses comparing the DHS 1998–99 survey data with Vimo SEWA 2003 data suggest that urban (or more specifically, Ahmedabadi) households have grown significantly wealthier, while rural households have grown significantly poorer. We cannot completely rule out the possibility that these differences are due to methodological differences (e.g., perhaps the Vimo SEWA surveyors were more persistent in revisiting rural households where nobody was present on the first visit, and these households were poorer). We were able to overcome limitations in the older, DHS data, by relying more heavily on comparisons with the Vimo SEWA reference standard. (This certainly raises an important methodological question for future studies—when should a reference standard be considered too old to be useful?)

Sample Size

When we calculated our sample size, we assumed that urban and rural would be treated as one. However, when we started analyzing the data (both qualitative and quantitative), we realized that urban and rural data would have to be analyzed separately. Thus, we ended up with sample sizes for rural RH mobile camps (N = 158), urban RH mobile camps (N = 376) and urban women’s education (N = 80), that are well below the desired sample size of 500. With respect to the urban results, this is somewhat irrelevant, given that all three urban services (even with these small sample sizes) were found to be used by people who were significantly more likely than the general population to fall below the thirtieth decile.

Exit Survey Data

Because this was an exit survey—conducted at the same site where the SEWA Health service was delivered—respondents may have misrepresented their wealth. As a way to
check this, we reinterviewed approximately 10 percent of all respondents, in both urban and rural areas. The SES index scores generated, based on the reinterviews, were consistent with scores based on the original interviews. This suggests that there were no large, systematic errors in responses given during the exit survey.

**Comparability between Reference Standard and Exit Survey Data**

The rural DHS data were collected from rural areas throughout the state of Gujarat (19 districts), while our exit survey data were collected in only two rural districts. Similarly, the rural Vimo SEWA data represent 9 districts. The fact that rural RH camp users and women’s education recipients were found not to reach the poor might result if the two districts where the study was carried out (Ahmedabad and Anand/Kheda) are wealthier than other rural districts in the state. However, our comparison of the study districts with the whole state (the 19 districts covered in the DHS 1998–99) showed no significant difference in the mean SES score, and very few significant differences on the basis of individual variables.

**Implications**

In summary, this study finds that in Ahmedabad city, SEWA Health’s services are used disproportionately by the poor (Table 3). Differences between the three urban health services studied were not statistically significant. In rural areas, SEWA Health’s services are used by people who do not differ significantly, in terms of socioeconomic status, from the general population. The rural health services do not effectively target those below the thirtieth percentile. In the case of rural RH mobile camps, reaching the poorest may be hindered by the cost of services (or perceived cost of services) at the health camps. The rural poor may have difficulty using both the rural health camps and the women’s education sessions, because they coincide with working hours.

**Table 3: Summary: percentage of all service users that fall in poorest three deciles**

<table>
<thead>
<tr>
<th>Service</th>
<th>Urban</th>
<th>Rural</th>
</tr>
</thead>
<tbody>
<tr>
<td>RH camps</td>
<td>51.9</td>
<td>5.7 - 8.2</td>
</tr>
<tr>
<td>TB detection and treatment</td>
<td>47.4</td>
<td>8.5 - 16.4</td>
</tr>
<tr>
<td>Women’s education</td>
<td>47.5</td>
<td></td>
</tr>
</tbody>
</table>

*Source: Authors.*

For the most part, the urban services seem to be effectively targeting the poor. Reasons for this success are likely to include:

- Services (especially RH mobile camps and women’s education sessions) are offered “right at people’s doorsteps.” In other words, SEWA Health takes the services to the poor, rather than trying to bring the poor to the services.
- The services are delivered by (or at least in part by) the poor themselves.
- The services are generally combined with efforts to educate and mobilize the community. For example, preceding the RH mobile camps, SEWA Health
workers go door-to-door, educating people about the service and educating people
to use it.

- Costs are low (certainly relative to the private-for-profit sector).
- SEWA is an entity that people know and trust.

As SEWA Health grows and evolves, efforts should be made not to change or disturb the
characteristics that are likely to have contributed to success in reaching the poor.

The study suggests several changes that can be made by SEWA Health to better reach the
poorest in the target population, particularly in rural areas. The first is to change the
timing of RH mobile camps and adult health education sessions to better suit the target
population, to hold them outside of normal working hours. The second is to ensure that
the cost of seeking care (paying to register, paying for medicines) at the RH mobile
camps does not pose an impediment to access among the poorest. Already, SEWA Health
does waive the registration fee and the medicines fee for those who appear to be
particularly poor—typically a few women presenting to each camp. Perhaps these
exemptions could be granted more liberally, and in a more objective manner, for
example, by providing exemption to all who possess a below-poverty-line card.

There are likely to be other, broader reasons underlying the difficulties in delivering
services to the rural poor. Studies in other SEWA departments have documented similar
discrepancies in the equity of utilization of rural versus urban services. For example, the
poorest rural members of SEWA’s insurance scheme (Vimo SEWA) have lower rates of
claims than the less-poor. Reasons for this differential include:

- Problems of geographic access, both to inpatient facilities and to Vimo SEWA’s
grassroots workers
- Weaker “links” between members and local Vimo SEWA representatives in rural
areas (less frequent and less intensive contact between members and the
organization in rural areas)
- Weaker capacities among Vimo SEWA grassroots workers in rural areas.

It must, however, be remembered that failure of a service to reach the poorest of the rural
poor does not necessarily mean that the service has failed in “reaching the poor.” Even
households that fall in the higher deciles of the SES index in rural areas should be
considered “less poor” rather than “wealthy.” Compared to their urban counterparts, these
rural households have less in the way of cash reserves, material wealth, and thus
economic security.

More generally, the findings of this study suggest that delivery of services through a
broad-based, development-oriented union can facilitate equitable delivery of health care
services. Government and donors can help ensure that established NGOs, with an interest
in providing health services, have the capacity and the resources to do so.
References


India: Assessing the Reach of Three SEWA Health Services Among the Poor

M. Kent Ranson, Palak Joshi, Mittal Shah, and Yasmin Shaikh

October 2004