Contextual factors for improving access to quality care in India: the issue of health insurance

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Contextual factors for improving access to quality care in India: the issue of

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Running title

Health insurance and quality care

Word count for the abstract

250

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4097

Figures

2

Tables

3
Abstract

Purpose: Recently, the Indian government launched health insurance schemes for the poor both to protect them from high health spending and to improve access to high-quality health services. This article aims to review the potentials of health insurance interventions in order to improve access to quality care in India based on experiences of community health insurance schemes.

Data sources: PubMed, Ovid MEDLINE (R), All EBM Reviews, CSA Sociological Abstracts, CSA Social Service Abstracts, EconLit, Science Direct, and the ISI Web of Knowledge, Social Science Research Network, and databases of research centers were searched up to September 2010. An Internet search was executed.

Study selection: 1133 papers were assessed for inclusion and exclusion criteria. 25 papers were selected providing information on eight schemes.

Data extraction: A realist review was performed using Hirschman’s exit-voice theory: mechanisms to improve exit strategies (financial assets and infrastructure) and strengthen patients’ long voice route (quality management) and short voice route (patient pressure).

Results of data synthesis: All schemes use a mix of measures to improve exit strategies and the long voice route. Most measures are not effective in reality. Schemes that focus on the patients’ bargaining position at the patient-provider interface seem to improve access to quality care.

Conclusion: Top-down health insurance interventions with focus on exit strategies will not work out fully in the Indian context. Government must actively facilitate the potential of CHI schemes to emancipate target groups so that they may transform from mere passive beneficiaries into active participants in their health.
Key words: Health insurance, community health insurance, theory-driven review, exit-voice theory, access to quality health care, India
Introduction

Despite India’s rapid economic growth and innovations in the medical sciences, inequities in access to quality health care remain (1, 2). Evidence indicates that the low public spending on social policy (3) and health (4), the rapid commercialization of the health system (5) and the absence of an adequate apparatus to regulate the quality of services (6), are the main causes of a growing insecurity of the Indian poor regarding their access to quality care.

In India the quality of health care is a major problem, both in terms of technical quality and infrastructure, as well as of having a patient-friendly organization and staff (7-9). Till today, government failed in monitoring public health staff adequately to make them responsive to poor patients’ needs (10). A common way to exit the low performing public sector is to buy health services from private providers. However, because of the absence of well-functioning regulatory measures and self-regulation, the quality in the private sector is very diverse (6). Many private providers, especially those consulted by poor people, are ill-qualified and charge high prices for low-quality treatment (5). With limited social health protection, the predicament of many Indian poor often boils down to the uneasy choice between either foregoing treatment or risking impoverishment (11).

In its last two periods of governance, the United Progressive Alliance has been trying to solve the inaccessibility of quality care for the poor. To upgrade the health infrastructure and human resources in remote areas, the government has launched the National Rural Health Mission (NRHM) (2005–2012). Next, it is trying to improve health insurance coverage among poor populations. Enthused about the high
enrollment rates of some community health insurance (CHI) schemes such as Yeshasvini and Self-Employed Women’s Association (SEWA), the Eleventh Five Year Plan (2007-2012) refers to CHI as a tool to extend social health protection to workers belonging to the informal sector (12). In the NRHM (13) document, CHI has been promoted as one of the measures to bring ‘accessible, affordable, accountable and good quality health care’. In April 2008, the Ministry of Labor has launched an ambitious plan covering 360 million poor Indians through a fully subsidized health insurance scheme, Rashtriya Swasthya Bima Yojana (RSBY) (12, 14).

CHI is not a new phenomenon in India. Since the 1950s, non-governmental organizations (NGO) have executed local risk-pooling mechanisms to improve the access to quality care and to protect households from high health expenses. At the moment, about 115 CHI schemes exist. Given the political interest in running a nationwide health insurance scheme, and collaborating with existing CHI schemes (12, 13), the impact of these schemes needs further investigation. For some schemes, the potentials to provide financial protection (15, 16) and improve access to health care (17-19) have already been analyzed. Data about whether and how CHI schemes could improve the quality of care are, however, limited.

Following Walshe’s plea (20), the purpose of this article is to perform a realist review of some Indian CHI schemes in order to assess their potentials in ensuring the access to quality care. Found on a discussion of the schemes’ program theories, the review gives insights into the underlying mechanisms and the contextual factors that may hamper or facilitate their ambition to improve the quality of health care.
Methodology

We adopted a realist review as described by Pawson et al. (21). In a nutshell, a realist review starts from the description of key theoretical assumptions behind interventions, that is, the basic hypotheses about how intervention measures will influence the subject’s action, and then goes on to investigate their accuracy and scope. Whether those underlying mechanisms are actually triggered, and produce the desired outcomes, depends largely on the given context and the characteristics of the subjects. The analysis of the interplay between contextual factors, content and measures, mechanisms and outcomes leads to a refined explanatory model (22).

Evidence-base

A literature search was conducted using the academic search engines PubMed, Ovid MEDLINE (R), Ovid MEDLINE (R) In-Process & Other Non-Indexed Citations, All EBM Reviews, CSA Sociological Abstracts, CSA Social Service Abstracts, EconLit, Science Direct, and the ISI Web of Knowledge and ISI proceedings. Based on the international discourse on CHI (23-25) the following combination of keywords was entered: (India OR Indian) AND ("community health insurance") OR ("community based health insurance") OR ("micro health insurance") OR ("mutual health insurance") OR ("community scheme") AND health) OR (microinsurance AND health) OR ("micro insurance") AND health) OR ("community health fund") OR ("mutual health fund") OR ("mutual health organization"). Subsequently, the databases of the Social Science Research Network (SSRN) and principal centers dealing with research on CHI in India were explored. Specifically, we consulted databases of the ASIAN Micro Insurance Network of the International Labour Organization, the Community Health Insurance Network linked to the Institute of
Public Health, Bangalore, the Micro Insurance Academy, the Consortium on Strengthening Micro Health Insurance Units for the Poor in India, and the Centre for Insurance and Risk Management of the Institute for Financial Management and Research, Chennai. Relevant literature was also identified through the Internet search engine Google Scholar.

(FIGURE 1 SOMEWHERE HERE)

All the papers in English, reported before September 2010, were included. The 1133 papers resulting from the search were assessed on their thematic focus (CHI performance on access to and quality of delivered health care) and geographic focus (India) (step 2, 3 & 4). The research team identified 25 papers for detailed analysis, which, in total, provide a fragmented evaluation of 21 CHI schemes. From these 21 schemes, eight schemes were selected for further review (step 5). In order to saturate the information base, the websites of the selected CHI schemes (26-33) were screened.

Quality appraisal

In a realist review all forms of evidence are considered as being equally authoritative when it may contribute to the fuller development of the explanatory framework (21, 22). Instead of papers being assessed against a priori standards for quality appraisal, the individual papers are evaluated for their relevance to the theory under test. Nevertheless, some evidence may be of poorer quality and reviewers need to flag those issues for the readers (34). The rigor of the included papers is assessed with
focus on methodological design, analysis, and discussion. A detailed overview of this appraisal could be found in Table 3, which is enclosed in the annex.

The papers could be divided into three groups. The first group describes schemes for their design features (35-42) following a case study approach. In the second group, papers provide a comparative review of CHI schemes giving information about 18 schemes (43-46). A third group contains papers concentrating on the impact of the CHI schemes (17-19, 47-56). The performance was assessed in a more systematic way following a defined research question and qualitative or quantitative methods.

Data extraction and analysis

The data extraction and analysis were executed in an iterative way going back and forth between data and theory. While reading all papers and additional information, the members of the research team categorized elements of content and measures, performance outcomes and contextual factors. Subsequently, those categories were discussed within the team and a table reporting information on the eight cases was drawn (see Table 2).

The key program theories: exit or voice

In recent policy discourse, it is predominantly argued that health insurance will improve access to quality care by consumer-directed forms of empowerment (57):

“RSBY provides the participating BPL household with freedom of choice between public and private hospitals and makes him a potential client worth attracting on account of the significant revenues that hospitals stand to earn through the scheme” (14). On basis of the stated causal hypotheses, the research team proposed to use
Hirschman’s notions of exit and voice (58) as the root model for pattern matching to identify general mechanisms and contextual determinants of success or failure to improve access to quality care.

Hirschman (1970) developed his framework to analyze ways in which consumers cope with performance deterioration of the delivered services and goods. Basically, he regards consumers as the ultimate source of control over provider responsiveness with two mechanisms at their disposal: exit and voice. Exit refers to the fact that consumers can simply leave and use competitors. Voice refers to the expression of grievance with the aim to change the situation for the better. Voice can be channeled “through individual or collective petition to the management directly in charge, through appeal to a higher authority with the intention of forcing a change in management or through various types of actions and protests, including those that are meant to mobilize public opinion” (58).

The most prominent variation on this model is perhaps the accountability framework presented in the World Development Report (WDR) 2004, Making Service Work for Poor People (59). The WDR framework combines three sets of actors – clients/citizens, service providers and policymakers – and two routes of accountability. Via a long route, citizens could inform policymakers on their needs in terms of quantity, quality, and responsiveness of providers. These, in turn, can hold the providers accountable by enforcing laws through adequate bureaucratic or market-based regulatory measures and sanctions. Via a short route, responsiveness is achieved through direct ‘client power’ or by ‘voting with the feet’ (exit). To make those accountability routes fully functional for poor people, authors have stressed the necessity of an intermediary role played by NGOs, such as, civil society.
organizations, self-help groups and community based organizations (60). These roles could imply the co-production of services to make them more manageable and socio-culturally acceptable (61), pressuring the government from the outside as an organized watchdog, or participating directly in the core functions of government itself (co-governance) (62).

**Pattern matching and causal mechanisms**

To discuss the underlying mechanisms a combination of competitive elaboration and principled discovery approaches to pattern matching was applied, as described by Mark et al (63). Based on the exit-voice notions and a consultation of the literature on CHI three generative mechanisms were articulated *a priori* and put to the test against the evidence-base. It is commonly argued that CHI schemes can improve access to quality health care by providing an exit route (M1), co-producing a long voice route (M2), and guarding over the long route of accountability (M3) (23, 25, 64-66). During the review we discovered another currently understudied mechanism: strengthening the short voice route by transforming the power imbalance at the provider–patient interface (M4). The different mechanisms, possible measures and contextual requirements to achieve the expected outcomes are described more in detail in Table 1.

(TABLE 1 SOMEWHERE HERE)

**Results**

Indian CHI schemes are very diverse in terms of design, initiator, size, and target populations. This diversity has an impact on the scheme’s measures and the provided
services. Four cases under review have health delivery functions (provider type):
Action for Community Organisation, Rehabilitation and Development (ACCORD),
Jowar Rural Health Insurance (JRHIS), Karuna Trust, and Raigarh Ambikapur Health
Association (RAHA). The other cases purchase care from independent providers, both
d Public and private: Kagad Kach Patra Kashtakari Panchayat (KKPKP), SEWA, Uplift
India Association (UIA), and Yeshasvini. Further, the insurance risk can be born by
the community (mutual type), the NGO (insurer type), or the NGO purchases an
insurance product from a formal insurance company (partner–agent type) (45, 67).

(TABLE 2 SOMEWHERE HERE)

Mechanism 1: Exit route
If we explore the exit route in practice, the question to be answered is if the CHI
schemes improve access to health care facilities, and hence increase poor patients’
freedom of choice. For ACCORD, JRHIS, RAHA, SEWA’s Preferred Provider
Systems, Yeshasvini and UIA, an increase in access has been reported resulting in a
higher utilization of health services by the target group. In all these cases, except for
UIA, schemes provide financial benefits at the time of consumption through cashless
systems. Although cashless systems are frequently promoted because members do not
have to worry about treatment costs before seeking care, the evidence demonstrates
that other financial and non-financial barriers exist, which hamper poor people to
access health facilities of good quality, and thus, limit exit options.

Under most schemes, indirect costs such as loss of wage, drugs and medical tests and
transportation, remain, which mitigate the benefits of the insurance. Further, poor
peoples’ freedom of choice is often limited because health facilities of good quality are lacking or unknown, especially in rural areas. Some schemes, in particular the provider-driven schemes overcome this by providing health services in the facilities run by them (ACCORD, JRHIS, Karuna Trust and RAHA), but this does not ensure the quality if well-functioning monitoring systems are absent (see further). Others such as UIA provide members with information about which enlisted quality providers are located in their neighborhood through a 24/7 helpline and counseling. Another way of guaranteeing quality care is by enlisting providers that meet up defined standards. However, enlistment sometimes reinforces inaccessibility. Enlisted providers are not always located close to the beneficiaries nor do they automatically adhere to the defined quality standards, as reported for Yeshasvini, SEWA’s Preferred Provider System and RAHA. Not only does this make the health facilities geographically and financially inaccessible but they also risk becoming socio-culturally alienating. To counter such problems, KKPKP negotiated with the insurance company to waive the required standards. This way, it succeeded in including providers closer to the beneficiaries, but this is at the expense of the quality of care.

Mechanism 2: Co-producing a long voice route

On paper, the eight schemes engage in active strategic purchasing to assure the quality of provided care. These strategic purchasing mechanisms include the enlistment of providers that adhere with quality standards, blacklisting of providers, contracts, provider payment mechanisms like fixed salaries or fee-for-performance, exclusion of harmful treatment from coverage, negotiation with government officials, and social accountability mechanisms. However, most of them face difficulties in ensuring the
quality of the provided care. Corruption, fraud and discrimination at the provider–
patient interface occur in many schemes: providers release required medical reports
only after asking ‘processing fees’; members are overcharged and treated rudely;
providers prescribe unneeded and harmful treatment; or providers ask informal
payments.

The main reason is the malfunctioning of quality management functions to control
compliance with defined agreements. In general, schemes lack the capacity to
negotiate successfully with providers over monitoring and accountability. In its
Preferred Provider System, for example, SEWA has relatively too few hospitalized
members to hold a powerful negotiation position regarding the enlisted hospitals.
Other schemes depend on the performance of external actors to monitor providers:
government officials (Karuna Trust), third-party administrators (Yeshasvini), or
officials from the congregation (RAHA). Those external actors do not always fulfill
these tasks properly because of incapability or unwillingness to do so.

Secondly, most strategic purchasing solely focuses on the technical aspects of health
care quality (education of providers, treatment protocols, or presence of infrastructure
and drugs). Little attention is paid to relational aspects of the clinical encounter.
Evidence, however, shows that socio-cultural alienation, discrimination, and
problematic relationships with health workers pose important barriers to access
quality care.

Thirdly, most schemes reflect a paternalistic understanding of development where the
target groups are approached as passive beneficiaries, rather than as active partners.
Sometimes they are consulted about their needs, but little room exists for participation
in monitoring or quality management. However, the bottom–up approach of JRHIS,
ACCORD and UIA seems very fruitful in improving the effectiveness of the long
voice route. In JRHIS, for example, the target group decides over the salary of health
workers considering their performance. The UIA scheme is completely run by the
community and members are represented at a high management level of the UIA
itself, where they can voice problems with regard to the quality and search for
contextualized solutions. This participatory approach strengthens the trust in the
schemes and emancipates members to express the encountered problems with low
quality treatment to the management of the scheme.

Mechanism 3: Guarding over the long route of accountability

Most schemes maintain strategic relations with government or other external actors
(funding organisations). Some schemes (Yeshasvini, Karuna Trust and SEWA) hold
powerful lobby positions with the government and reside in political advisory groups.
This lobbying has definitely contributed in putting the issue of health insurance for
the poor on the political agenda, but the impact on pressuring the government or
professional bodies to regulate the health sector is not visible. Through negotiations
with government Karuna Trust, KKPKP and recently ACCORD achieved financial
partnerships that allow them to, respectively, give free care and compensate for other
indirect costs, fully subsidize the premiums, and cover primary care. Nevertheless,
such public partnerships sometimes negatively affect the schemes’ credibility in the
target communities. Members of Karuna Trust question the quality of care provided
because of the low-quality performance stigma of public sector providers. The
partnership with government also pushes KKPKP in a difficult position towards their
members. Due to a high claim rejection rate and absence of clear communication by
the for profit insurance company, members loose their trust in the union to provide
social protection, and change the social exclusion and discrimination that they experience. It makes them more reluctant to engage in the KKPKP insurance program. However, the contractual mandate to hold the insurance company accountable lies with the municipal government who pays the premium.

**Introduction of an additional mechanism 4: Short voice route**

Consumer-directed empowerment or co-producing the long route to accountability has little direct impact on the power imbalance that typifies the problematic relationship between providers and poor patients. The right-based approach of ACCORD, JRHIS, UIA or KKPKP embedded in a broader ideology of emancipation and community building, creates options that challenge these power imbalances. ACCORD overcomes the socio-cultural alienation by selecting providers from the target community itself. In JRHIS and UIA, social workers accompany members during hospitalization. These socially close workers function as guardians of the sick, that is, go-betweens translating patient’s concerns, negotiating a good and respectful treatment, securing the continuity of treatment, and breaking the ceremonial order between blame submitting providers and poor patients who passively accept maltreatment. Also for KKPKP, social workers support members in claiming their health rights by persistently pressuring hospitals to observe the court order that obliges them to provide inpatient care at concessional rates to poor people. These forms of social care generate a sustainable change in attitude of providers towards poor patients by battling the ignorance of poor patients about their rights and because providers fear social pressure and social disclosure by the schemes. Further, the participatory way of working of the UIA and JRHIS seems to emancipate members in seeking good quality health care, wherein they negotiate with health
workers over the quality of care they expect. In the frequent insurance group
meetings, members of UIA exchange information about good and bad providers and
the way they dealt with the problematic behavior of the health workers. Through its
broader development activities, also JRHIS succeeds in increasing the organizational
ability and confidence of its members in claiming their right to demand health care of
high quality.

Discussion and conclusion

This realist review discusses underlying mechanisms popularly used by national and
international policy makers to promote the introduction of health insurance in India as
a solution to improve poor peoples’ access to quality health care, against the
background of the experiences of eight CHI schemes. Its value lies in the novelty of a
refined explanatory model and in the systematic analysis of the impact of CHI on the
quality of provided care, an understudied theme in the research on CHI in India.
Currently, only four papers focus on such an issue (48, 50, 52, 53).

A refined explanatory framework

(FIGURE 2 SOMEWHERE HERE)

Based on the review of experiences of CHI schemes, we suggest the integration of a
fourth mechanism (M4) whereby some CHI schemes seemingly improve access to
quality care in a sustainable way: strengthening the short voice route by transforming
the power imbalance at the provider-patient interface. There is congruence of this
with experiences of CHI schemes in sub-Saharan Africa (68) and Cambodia (69). The
fourth mechanism also shares the growing recognition of the need of a transformative
dimension in social protection (70, 71), social policy (72) and social work (73) where
transformation refers to the need of analyzing, resisting and challenging structures of
power at micro and macro levels that underlie social exclusions and vulnerability of
the marginalized groups.

Strengths and limitations

The review does not provide clear answers to questions as to which intervention
would most effectively improve access to quality health care. Rather, it provides a
critical discussion of ideas that inspire the recent policies to cover the Indian poor
with health insurance. Further, it provides insights in some contextual factors that
influence the success of existing interventions, alerting policymakers to the role that
CHI schemes could play in the social health protection policy, and problems that they
might expect to confront in the complex health sector in India.

A major limitation was the relatively limited evidence-base. Because of the contextual
particularity of the commercialized Indian health system, we decided to limit our
review to experiences of the Indian CHI schemes. By combining fragmented pieces of
evidence on performance, based on access and quality, measures, and contextual
factors, we nevertheless obtained the information necessary to discuss and refine an
explanatory model, which is one of the main aims of a realist review (21, 22).

However, it is methodologically important to check the value of the refined
explanatory framework by using it in other contexts. A similar review with focus on
CHI experiences in sub-Saharan African countries, for example, would provide
interesting comparative insights, but lies outside the scope of this paper.
Why do Indian CHI schemes face difficulties in improving access to quality care?

The success in which the Indian CHI schemes manage to improve access to quality health care is moderated. The review shows that the hypotheses that health insurance could improve this access to quality care by strengthening exit or voice routes do not automatically work out in practice due to several contextual factors.

Exit mechanisms (M1) are hampered due to the shortage of decent health infrastructure in remote areas, remaining direct and indirect costs, health illiteracy and ignorance among marginalized target groups, and other socio-cultural barriers. With limited exit options, strengthening the voice of the poor has been promoted as a valuable alternative. However, in the absence of some backup of a regulatory framework on the national level, it is difficult for CHI schemes to strengthen the long voice route effectively (M3). Moreover, the co-production of a long voice route on lower governance level could improve the quality as long as all stakeholders involved actively take up their responsibility (M2). It seems, however, that most schemes have little power in the bargains with providers, insurance companies, professional associations, and government over quality standards, price negotiations, and accountability mechanisms.

Further, the review shows that precisely those schemes that also focus on the members’ emancipation via the short voice route (M4) seem to successfully improve access to quality care, even if exit and long voice routes are restricted by other contextual factors. This supports the argument that a good provider–patient relation is an essential part of interventions for quality improvement and that the power imbalance in this relations should be challenged to provide effective social health protection.
The RSBY is the most inclusive and comprehensive social health protection intervention of the Indian government so far. Health insurance is expected to improve the quality of health care by financially empowering (M1) and introducing strategic purchasing mechanisms (M2). If carefully integrated in the NRHM, the RSBY promises to reduce the health insecurity of the Indian poor to a minimum. It will, however, not succeed completely in bringing ‘accessible, affordable, accountable and good quality health care’ if the focus remains on increasing financial means and freedom of choice in a top–down manner. Next to the improvement of the health infrastructure, adequate mechanisms are needed to regulate India’s health system and to ensure the quality of care both in terms of technical quality as well as the attitude of providers towards the poor. NGOs and community based organizations, such as CHI schemes, have potentials in creating and maintaining the long and short voice routes as shown in the review. Nevertheless, the Indian government needs to attribute to those organizations a more active role than merely advertising the RSBY. It has to tap and facilitate actively the potential of such organizations to, effectively, co-produce community based quality assurance mechanisms and emancipate the target group so that they transform from mere passive beneficiaries into active participants in their health.
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Figure 1. Selection of the evidence-base

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<tr>
<td>Literature search using academic search engines, SSRN, databases of research institutes and Google Scholar</td>
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| Academic search engines (179) + SSRN (39) + databases research institutes (100) + Google Scholar (815) |
| Total: 1133 |

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<tr>
<td>Exclusion</td>
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<tr>
<td>- Papers with mere focus on (a) technical set up, (b) enrollment determinants, (c) feasibility &amp; viability, (d) reduction in health expenditure or (e) coverage - Methodological discussions</td>
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<tr>
<td>Inclusion</td>
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<tr>
<td>- Papers assessing CHI impact on access to health - Papers assessing CHI impact on quality of care</td>
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| Total: 84 |

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<td>Inclusion</td>
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<td>- Papers with geographic focus on India</td>
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| Total: 55 |

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<td>Inclusion</td>
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<td>- Papers assessing a specific scheme or schemes</td>
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<tr>
<td>Exclusion</td>
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<tr>
<td>- Informative descriptions (leaflets, technical notes, encyclopedia,...) - General descriptions of impact of CHI</td>
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| 25 papers providing a fragmented evaluation of 21 CHI schemes |

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<tr>
<td>Selection of CHI schemes</td>
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<tr>
<td>- With performance discussed in at least 2 papers - With enough information on content, outcomes and contextual factors</td>
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| 8 CHI schemes |
| ACCORD, JRHIS, Karuna Trust, RAHA, KKPKP, SEWA, UIA and Yeshasvini |

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<tr>
<td>Refinement of exit-voice framework with mechanisms and contextual barriers</td>
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| Analysis of website of 8 schemes as well as mission documents, information leaflets, ... for documenting programme theories, benefit packages and measures in use |

1 The number of each individual source state the additional new information, i.e. all papers, which are already identified using the source above it, are not counted.
<table>
<thead>
<tr>
<th>Mechanism</th>
<th>Possible measures</th>
<th>Contextual requirements</th>
<th>Outcomes</th>
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<tr>
<td><strong>M1 Exit route</strong>&lt;br&gt;CHI increases poor peoples’ purchasing power and freedom of choice to access quality providers and exit low performing providers</td>
<td>- reduction of financial barriers via insurance: cashless or reimbursement&lt;br&gt;- increase in number of available health care facilities by co-production&lt;br&gt;- provision of information and counseling</td>
<td>- market competition with availability of quality providers&lt;br&gt;- fully informed members capable of evaluating both technical and interpersonal quality of care&lt;br&gt;- no other financial and socio-cultural barriers&lt;br&gt;- no power imbalance at provider/patient interface</td>
<td>Low performing providers improve the quality of care to prevent that poor insured patients buy their health care elsewhere</td>
</tr>
<tr>
<td><strong>M2 Co-producing a long voice route</strong>&lt;br&gt;Schemes strategically purchase health care from providers, which gives a mandate to set quality standards</td>
<td>- enlistment of providers&lt;br&gt;- contracts stipulating quality standards&lt;br&gt;- treatment protocols&lt;br&gt;- performance-for-payment mechanisms&lt;br&gt;- monitoring and disciplinary action&lt;br&gt;- social accountability</td>
<td>- availability of quality providers who could be enlisted&lt;br&gt;- schemes informed about quality performance of providers&lt;br&gt;- schemes in a position to bargain&lt;br&gt;- schemes capable of monitoring enlisted providers or having external actors doing this&lt;br&gt;- fully informed insured members report quality problems experienced</td>
<td>Providers improve and maintain standards of care to ensure that they remain enlisted and ensure a steady income over time</td>
</tr>
<tr>
<td><strong>M3 Guarding over the long voice route</strong>&lt;br&gt;Schemes link communities with politically more voiced groups or hold government or other external actors accountable to regulate the health system</td>
<td>- social mobilization&lt;br&gt;- networking and lobbying&lt;br&gt;- social pressure&lt;br&gt;- social disclosure&lt;br&gt;- feedback mechanisms and participation of communities in the schemes</td>
<td>• schemes have a strong social network&lt;br&gt;• government capable of and willing to implementing a regulatory framework&lt;br&gt;• self-regulating provider associations&lt;br&gt;• room for civil society in lobbying and agenda setting</td>
<td>Well-functioning monitoring and disciplinary systems are in place and providers improve their standards of care to avoid sanctions by government or other external actors</td>
</tr>
<tr>
<td><strong>M4 Short voice route</strong>&lt;br&gt;Social care and emancipatory programs increase poor peoples’ confidence to negotiate directly with providers over the quality of care</td>
<td>• community health workers, social workers or NGO-doctors&lt;br&gt;• guardian of the sick &amp; socio-cultural translator&lt;br&gt;• health education&lt;br&gt;• participation and capacity building&lt;br&gt;• facilitating development of social capital</td>
<td>• members capable of evaluating both technical and interpersonal quality of care&lt;br&gt;• providers start dialogue with patients&lt;br&gt;• providers are not opportunistically responding to patients’ demands&lt;br&gt;• providers accept presence of community health workers, social workers or NGO-doctors during clinical encounter</td>
<td>Improvement of relationship between providers and patients Increase in poor patients’ confidence to negotiate with providers</td>
</tr>
</tbody>
</table>
Table 2. Characteristics of the eight selected CHI schemes

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<tbody>
<tr>
<td>ACCORD (1992)</td>
<td>Tamil Nadu</td>
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<td>RHHS (1978)</td>
<td>Maharashtra</td>
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<td>Karuna Trust</td>
<td>Karnataka</td>
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<tr>
<td>KKPKP (2003)</td>
<td>Maharashtra</td>
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<thead>
<tr>
<th>(a) Typology</th>
<th>(b) Initiator</th>
<th>(a) Typology</th>
<th>(b) Initiator</th>
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<tbody>
<tr>
<td>(a) partner-agent (health NGO)</td>
<td>(b) development organization</td>
<td>(a) mutual (provider)</td>
<td>(b) hospital</td>
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<table>
<thead>
<tr>
<th>Content</th>
<th>Measures</th>
<th>Outcomes</th>
<th>Context &amp; stake holders</th>
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<tbody>
<tr>
<td>-Insurance for hospitalization</td>
<td>-Cashless system</td>
<td>(a) improved access, indirect costs</td>
<td>M1: rural: few health facilities</td>
</tr>
<tr>
<td>-Coverage of primary care in NGO health centre and hospital</td>
<td>-Counseling via CHW</td>
<td>(b) increase in technical &amp; interpersonal quality of care</td>
<td>M2: community-based &amp; participatory character increases trust in NGO</td>
</tr>
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<td></td>
<td>-Social accountability</td>
<td></td>
<td>M2: NGO run facilities increase monitoring, fixed salary of providers</td>
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<td></td>
<td>-Member participation</td>
<td></td>
<td>M3: lobbying with state government over combining a state program with the CHI to cover other costs</td>
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<td></td>
<td>-Feedback mechanisms</td>
<td></td>
<td>M4: socio-culturally close health staff increases trust &amp; dialogue between patient &amp; provider</td>
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<tr>
<td></td>
<td>-Nestled social program</td>
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<tr>
<td></td>
<td>-Free primary care via community health worker (CHW)</td>
<td>-Cashless system</td>
<td>(a) improved access</td>
</tr>
<tr>
<td></td>
<td>-Insurance for hospitalization and outpatient care at NGO hospital</td>
<td>-Counseling via CHW</td>
<td>(b) increase in technical &amp; interpersonal quality of care</td>
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<td></td>
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<td>(b) increase in technical &amp; interpersonal quality of care</td>
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<tr>
<td></td>
<td></td>
<td>-Member participation</td>
<td>(b) irrational treatment, corruption, provider fraud</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-Feedback mechanisms</td>
<td>(b) irrational treatment, abuse of patients, provider fraud</td>
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<tr>
<td></td>
<td></td>
<td>-Capacity building</td>
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<td></td>
<td>-Nestled in social program</td>
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<td></td>
<td>-Reimbursement</td>
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<td></td>
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<td>-Counseling via social workers</td>
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<td>-Quality monitoring by government or insurance company</td>
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<td>-Top-down implementation</td>
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<td></td>
<td></td>
<td>-Lobbying and social mobilization</td>
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<tr>
<td></td>
<td></td>
<td>-Nested in social program</td>
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(a) Typology  | (b) Initiator        | (a) Typology  | (b) Initiator |
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</thead>
<tbody>
<tr>
<td>(a) partner-agent (health NGO)</td>
<td>(b) public-private partnership</td>
<td>(a) partner-agent (union)</td>
<td>(b) union</td>
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</tbody>
</table>

| Karuna Trust (2002) | -Free hospitalization in public centre | -Subsidized outpatient care | -Compensation for loss of wage, drugs and transportation | -Insurance for hospitalization |
| KKPKP (2003)        | -Cashless system                  | -Social workers in hospital | -Top-down implementation | -Reimbursement |
|                     | -Social accountability            | -Quality monitoring by government or insurance company | -Nested in social program | -Counseling via social workers |
|                     | -Member participation             | -Top-down implementation | -Lobbying and social mobilization | -Quality monitoring by government or insurance company |
|                     | -Feedback mechanisms              | -Nested in social program | -Lobbying and social mobilization | -Quality monitoring by government or insurance company |
|                     | -Capacity building                |                          | -Nested in social program |                          |
|                     | -Nestled in social program        |                          |                          |                            |
|                     |                                  |                          |                          |                            |
|                     |                                  |                          |                          |                            |

Context & stake holders

M1: rural: few health facilities
M2: community-based & participatory character increases trust in NGO
M2: NGO run facilities increase monitoring, fixed salary of providers
M3: lobbying with state government over combining a state program with the CHI to cover other costs
M4: socio-culturally close health staff increases trust & dialogue between patient & provider
M1: rural: few health facilities
M2: little involvement of members in running scheme
M2: NGO related facilities increase monitoring, social accountability mechanisms
M3: scheme embedded in government bodies at village & district level
M4: socio-culturally close health workers & emancipation increase confidence to claim quality care
M1: rural: few health facilities
M2: PPP, but monitoring and control of public facilities remain a government responsibility
M3: lobbying power centralized in one person: founder/honorary director
M4: members have little voice to claim their rights, victims of corruption

M1: urban: many health facilities
M2: miscommunication & high claim rejection cause low trust in scheme
M3: monitoring was responsibility of government or insurance company
M4: feelings of social exclusion is reproduced during treatment
<table>
<thead>
<tr>
<th>Name (year)</th>
<th>locality</th>
<th>(a) Typology</th>
<th>(b) Initiator</th>
<th>Content</th>
<th>Measures</th>
<th>Health care outcomes</th>
<th>Context &amp; stake holders</th>
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<tbody>
<tr>
<td>RAHA (1980)</td>
<td>Chattisghar</td>
<td>(a) insurer (provider)</td>
<td>(b) congregational health network</td>
<td>- Free primary and outpatient care via CHW and NGO health centre</td>
<td>- Cashless system</td>
<td>(a) improved access, indirect costs</td>
<td>M1: rural: rural: few health facilities</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>- Insurance for hospitalization</td>
<td>- Top-down implementation</td>
<td>(b) irrational treatment, provider fraud</td>
<td>M2: trust in NGO among Christians, run ‘for people’ (vs. ‘with people’)</td>
</tr>
<tr>
<td>SEWA (1992)</td>
<td>Gujarat</td>
<td>(a) partner-agent (union)</td>
<td>(b) union</td>
<td>- Insurance for hospitalization</td>
<td>- SEWA I</td>
<td>(a) improved access, non-financial barriers, indirect costs</td>
<td>M2: trust in NGO, control of members fraud but not of provider fraud</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>- Discount outpatient coupons</td>
<td>- SEWA II</td>
<td>(b) irrational treatment, provider fraud</td>
<td>M2: no formal contract with providers, NGO has low negotiation power</td>
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<tr>
<td>UIA (2003)</td>
<td>Maharashtra</td>
<td>(a) insurer (mutual)</td>
<td>(b) micro finance institution</td>
<td>- Insurance for hospitalization</td>
<td>- Reimbursement</td>
<td>(a) improved access, non-financial barriers, indirect costs</td>
<td>M3: lobbying power as ‘the example’</td>
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<tr>
<td>Yeshavini (2003)</td>
<td>Karnataka</td>
<td>(a) insurer (charity)</td>
<td>(b) public-private partnership</td>
<td>- Insurance for selected surgeries and related out patient</td>
<td>- Counseling via CHW &amp; doctor</td>
<td>(b) increase in technical &amp; interpersonal quality of care</td>
<td>M4: provider opportunism, reproduction of feelings of exclusion</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>- Diagnostic tests at discount rates</td>
<td>- 24x7 helpline</td>
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</table>
Figure 2. Refined explanatory framework on how CHI schemes improve access to quality health care for poor people

(Adapted from the World Development Report 2004, Making Services Work for Poor People)
<table>
<thead>
<tr>
<th>Authors (ref) scheme (s)</th>
<th>Purpose of paper</th>
<th>Rigor a) methodology b) data</th>
<th>Relevancy (♦ - ♦♦♦♦♦) a) access b) quality</th>
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<td>Ahmed (mimeo) (35)</td>
<td>Descriptive case studies</td>
<td>Consultancy report</td>
<td>a) ♦♦♦ b) ♦♦♦♦♦♦♦♦</td>
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<td>KKPKP</td>
<td>Describe uniqueness of KKPKP, and constraints, needs and aspirations of stakeholders</td>
<td>a) Descriptive statistics, but methodology for data collection &amp; analysis strategy not made explicit b) Informal meetings with beneficiaries &amp; formal interviews with other stakeholders: trade union, insurer, hospitals</td>
<td></td>
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<td>Criel et al (2006) (36)</td>
<td>Analyze the functioning and identify constraints and areas for improvement</td>
<td>Unpublished evaluation</td>
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<td>Garand (2005) (37)</td>
<td>Assess the evolution and performance of SEWA since the development of the business plan</td>
<td>Evaluation report</td>
<td>a) ♦♦♦ b) ♦♦♦♦♦♦♦</td>
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<td>SEWA</td>
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<td>Jajoo et al (2004) (38)</td>
<td>Describe the genesis and development of JRHIS</td>
<td>National peer reviewed article</td>
<td>a) ♦♦♦ b) ♦♦♦♦♦♦♦</td>
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<td>JRHIS</td>
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<td>Kuruvilla et al (2007) (39)</td>
<td>Examine reasons for success and evaluate potential transferability of Yeshasvini</td>
<td>International peer reviewed article</td>
<td>a) ♦♦ b) ♦♦♦♦♦♦</td>
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<td>Yeshasvini</td>
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<tr>
<td>Leist et al (2004) (40)</td>
<td>Description of organizational structure</td>
<td>Consultancy report</td>
<td>a) ♦♦ b) ♦♦♦♦♦♦♦</td>
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<td>UIA</td>
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<tr>
<td>Radermacher et al (2005) (41)</td>
<td>Assess the evolution and performance of Karuna Trust since the development of the business plan</td>
<td>Evaluation report</td>
<td>a) ♦♦♦ b) ♦♦♦♦♦♦♦</td>
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<td>Karuna Trust</td>
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<tr>
<td>Radermacher et al (2005) (42)</td>
<td>Assess the evolution and performance of Yeshasvini since the development of the business plan</td>
<td>Evaluation report</td>
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<td>Purpose of paper</td>
<td>Rigor</td>
<td>Relevancy (♦ - ♦♦♦♦♦)</td>
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<td>b) data</td>
<td>b) quality</td>
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<td>Achiever et al (2005) (43) 4 schemes in Gujarat</td>
<td>Evaluate CHI schemes as alternative for financing health care expenditure</td>
<td>National peer reviewed article</td>
<td>a) Methodology for data collection &amp; analysis strategy not made explicit</td>
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<td>Devadasan et al (2004) (44) 12 Indian schemes</td>
<td>Describe CHI schemes (context, design, management) and impact</td>
<td>National peer reviewed article</td>
<td>a) Methodology for data collection &amp; analysis strategy not made explicit</td>
</tr>
<tr>
<td>Devadasan et al (2006) (45) 10 Indian schemes</td>
<td>Describe CHI schemes (context, design, management) and impact</td>
<td>International peer reviewed article</td>
<td>a) Inductive case study methodology</td>
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<tr>
<td>Ranson (2003) (46) 12 Indian schemes</td>
<td>Review the experience of schemes: impact on health system goals, hospital access &amp; protection</td>
<td>International peer reviewed article</td>
<td>a) Methodology for data collection &amp; analysis strategy not made explicit</td>
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<td>Aggarwal (2009) (47) Yeshasvini</td>
<td>Evaluate impact on health utilization, protection and treatment outcomes</td>
<td>Research report</td>
<td>a) Propensity score matching methods</td>
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<td>Bauchet et al (submitted for publication) (48) UIA</td>
<td>Measure how the scheme improve the quality of provided care</td>
<td>International peer reviewed article</td>
<td>a) Comparison of insured with uninsured based on qualitative analysis &amp; statistical methods (Mann-Whitney test, Fisher’s exact test &amp; regressions)</td>
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<td>Devadasan et al (2004) (49) ACCORD</td>
<td>Analyze performance vis-à-vis access to hospitalization</td>
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<td>a) Qualitative analysis &amp; descriptive statistical analysis</td>
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<td>Analyze performance vis-à-vis access to hospitalization</td>
<td>International peer reviewed article</td>
<td>a) Multivariate logistic regression</td>
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Impact assessments

Research report

a) Propensity score matching methods
b) Household survey and secondary data from government databases

International peer reviewed article

a) Comparison of insured with uninsured based on qualitative analysis & statistical methods (Mann-Whitney test, Fisher’s exact test & regressions)
b) In-depth interviews with patients, survey under lead doctor, visit of facilities & medical reports

National peer reviewed article

a) Qualitative analysis & descriptive statistical analysis
b) Interviews with key informants, data from records & reports

International peer reviewed article

a) Multivariate logistic regression
b) Panel survey
<table>
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<th>Authors (ref) scheme (s)</th>
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<th>Relevancy (♦ - ♦♦♦♦♦) a) access b) quality</th>
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<td>Devadasan et al (In press) (50) ACCORD</td>
<td>Measure impact on quality of care using patient satisfaction as a proxy</td>
<td><em>International peer reviewed article</em> a) Comparison between 2 schemes and insured and uninsured patients through a statistical analysis (median, proportions &amp; confidence intervals) b) Literature review, FGD and structured questionnaire on 19 satisfaction indicators using a dichotomous scale</td>
<td>a) ♦♦♦♦♦ b) ♦♦♦♦♦</td>
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<td>Dixit et al (2008) (51) UIA-Parvati</td>
<td>Assess impact on members’ well being, satisfaction &amp; utilization of additional services</td>
<td><em>Research report</em> a) Descriptive statistical analysis b) Quantitative questionnaire with open-ended questions &amp; secondary data</td>
<td>a) ♦♦♦♦♦ b) ♦</td>
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<tr>
<td>Dror et al (2009) (19) BAIF, UIA, Nidan</td>
<td>Identify impact on protection and equitable access to health care</td>
<td><em>International peer reviewed article</em> a) Univariate statistics, parametric (ANOVA, t-test) &amp; non-parametric tests b) Household survey and qualitative interviews with managers</td>
<td>a) ♦♦♦♦♦ b) ♦</td>
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<td>Michielsen et al (2009) (52) CSSC, KKPKP, UIA</td>
<td>Analyze impact on access to affordable health care of good quality</td>
<td><em>International congress paper</em> a) Realist evaluation using qualitative analysis b) Focus group discussion with female members in different slums &amp; quantitative data on socio-economic status</td>
<td>a) ♦♦♦♦♦ b) ♦♦♦♦♦</td>
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<td>Ranson et al (2001) (53) SEWA</td>
<td>Identify problems of the quality of hysterectomy care</td>
<td><em>International peer reviewed article</em> a) Quality analysis based on Donabedian ‘structure, process, outcome’ approach b) Literature review, field visits, discussions with stakeholders, data from records &amp; reports</td>
<td>a) ♦♦♦♦ b) ♦♦♦♦♦</td>
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<tr>
<td>Ranson et al (2006) (54) SEWA</td>
<td>Analyze impact on protection and access to quality health care</td>
<td><em>International peer reviewed article</em> a) Multivariate logistical regression b) Household surveys of 3 populations</td>
<td>a) ♦♦♦♦ b) ♦♦</td>
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<td>Ranson et al (2006) (17) SEWA</td>
<td>Analyze the experience a pilot Preferred Provider System</td>
<td><em>International peer reviewed article</em> a) Qualitative analysis and multivariate logistical regression b) Household surveys of 3 populations, in depth interviews with members and grassroots level staff</td>
<td>a) ♦♦♦♦ b) ♦♦♦♦</td>
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<td>Sinha et al (2006) (55) SEWA</td>
<td>Analyze barriers that hinder patients to fully use the benefits of the scheme</td>
<td><em>International peer reviewed article</em> a) Qualitative analysis b) FGD with members and grassroots level staff</td>
<td>a) ♦♦♦♦ b) ♦♦♦♦</td>
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<td>Sinha et al (2007) (56) SEWA</td>
<td>Measure distributional impact of the scheme across different target groups</td>
<td><em>International peer reviewed article</em> a) Multivariate logistical regression b) Household surveys of 3 populations</td>
<td>a) ♦♦♦♦ b) ♦♦♦♦</td>
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</table>
Manuscript title

Contextual factors for improving access to quality care in India: the issue of health insurance

Running title

Health insurance and quality care

Word count for the abstract

250

Word count for the text of the manuscript

4097

Figures

2

Tables

3
Abstract

Purpose: Recently, the Indian government launched health insurance schemes for the poor both to protect them from high health spending and to improve access to high-quality health services. This article aims to review the potentials of health insurance interventions in order to improve access to quality care in India based on experiences of community health insurance schemes.

Data sources: PubMed, Ovid MEDLINE (R), All EBM Reviews, CSA Sociological Abstracts, CSA Social Service Abstracts, EconLit, Science Direct, the ISI Web of Knowledge, Social Science Research Network and databases of research centers were searched up to September 2010. An Internet search was executed.

Study selection: 1133 papers were assessed for inclusion and exclusion criteria. 25 papers were selected providing information on eight schemes.

Data extraction: A realist review was performed using Hirschman’s exit-voice theory: mechanisms to improve exit strategies (financial assets and infrastructure) and strengthen patient’s long voice route (quality management) and short voice route (patient pressure).

Results of data synthesis: All schemes use a mix of measures to improve exit strategies and the long voice route. Most mechanisms are not effective in reality. Schemes that focus on the patients’ bargaining position at the patient-provider interface seem to improve access to quality care.

Conclusion: Top-down health insurance interventions with focus on exit strategies will not work out fully in the Indian context. Government must actively facilitate the potential of CHI schemes to emancipate the target group so that they may transform from mere passive beneficiaries into active participants in their health.
Key words: Health insurance, quality improvement, access to care, community health insurance, theory-driven review, India
Introduction

Despite India’s rapid economic growth and innovations in the medical sciences, inequities in access to quality health care remain (1, 2). Evidence indicates that the low public spending on social policy (3) and health (4), the rapid commercialization of the health system (5) and the absence of an adequate apparatus to regulate the quality of services (6), are the main cause of a growing insecurity of the Indian poor regarding their access to quality care.

In India, the quality of health care is a major problem, both in terms of technical quality and infrastructure, as well as of having a patient-friendly organization and staff (7-9). Till today, government failed in monitoring public health staff adequately to make them responsive to poor patients’ needs (10). A common way to exit the low performing public sector is to buy health services from private providers. However, because of the absence of well-functioning regulatory measures and self-regulation, the quality in the private sector is very diverse (6). Many private providers, especially those consulted by poor people, are ill-qualified and charge a lot of money for low-quality treatment (5). With limited social health protection, the predicament of many Indian poor often boils down to the uneasy choice between either forgoing treatment or risking impoverishment (11).

In its last two periods of governance, the United Progressive Alliance has been trying to solve the inaccessibility of quality care for the poor. To upgrade the health infrastructure and human resources in remote areas, the government has launched the National Rural Health Mission (NRHM) (2005–2012). Next, it is trying to improve health insurance coverage among poor populations. Enthused about the high...
enrollment rates of some community health insurance (CHI) schemes such as Yeshasvini and Self-Employed Women’s Association (SEWA), the Eleventh Five Year Plan (2007-2012) refers to CHI as tools to extend social health protection to workers belonging to the informal sector (12). In the NRHM (13) document, CHI has been promoted as one of the measures to bring ‘accessible, affordable, accountable and good quality health care’. In April 2008, the Ministry of Labor has launched ambitious plan covering 360 million poor Indians through a fully subsidized health insurance scheme, Rashtriya Swasthya Bima Yojana (RSBY) (12, 14).

CHI is not a new phenomenon in India. Since the 1950s, non-governmental organizations (NGO) have executed local risk-pooling mechanisms to improve the access to quality care and to protect households from high health expenses. At the moment, about 115 CHI schemes exist. Given the political interest in running a nationwide health insurance scheme, and collaborating with existing CHI schemes (12, 13), the impact of these schemes needs further investigation. For some schemes, the potentials to provide financial protection (15, 16) and improve access to health care (17-19) have already been analyzed. Data about whether and how CHI schemes could improve the quality of care are, however, limited.

Following Walsh’s plea (20), the purpose of this article is to perform a realist review of some Indian CHI schemes in order to assess their potentials in ensuring the access to quality care. Found on a discussion of the schemes’ program theories, the review gives insights into the underlying mechanisms and the contextual factors that may hamper or facilitate their ambition to improve the quality of health care.
Methodology

We adopted a realist review as described by Pawson et al. (21). In a nutshell, a realist review starts from the description of key theoretical assumptions behind interventions, that is, the basic hypotheses about how intervention measures will influence the subject’s action, and then goes on to investigate their accuracy and scope. The intervention is supposed to work out like this, but what happens in reality? Whether these underlying mechanisms are actually triggered, and produce the desired outcomes, depends largely on the given context and the characteristics of the subjects.

The analysis of the interplay between contextual factors, content and measures, mechanisms and outcomes leads to a refined explanatory model (22).

Evidence-base

An literature search was conducted using the academic search engines PubMed, Ovid MEDLINE (R), Ovid MEDLINE (R) In-Process & Other Non-Indexed Citations, All EBM Reviews, CSA Sociological Abstracts, CSA Social Service Abstracts, EconLit, Science Direct, and the ISI Web of Knowledge and ISI proceedings. Based on the international discourse on CHI (23-25) the following combination of keywords was entered: (India OR Indian) AND (“community health insurance”) OR (“community-based health insurance”) OR (“micro health insurance”) OR (“mutual health insurance”) OR (“community scheme”) AND health) OR (microinsurance AND health) OR (“micro insurance”) AND health) OR (“community health fund”) OR (“mutual health fund”) OR (“mutual health organization”). Subsequently, the databases of the Social Science Research Network (SSRN) and principal centers dealing with research on CHI in India were explored. Specifically, we consulted database of the ASIAN Micro Insurance Network of the International Labour.
Organization, the Community Health Insurance Network linked to the Institute of Public Health, Bangalore, the Micro Insurance Academy, the Consortium on Strengthening Micro Health Insurance Units for the Poor in India, and the Centre for Insurance and Risk Management of the Institute for Financial Management and Research, Chennai. Relevant literature was also identified through the Internet search engine Google Scholar.

(FIGURE 1 SOMEWHERE HERE)

All the papers in English, reported before September 2010, were included. The 1133 papers resulting from the search were assessed on their thematic focus (CHI performance on access to and quality of delivered health care) and geographic focus (India) (step 2, 3 & 4). The research team identified 25 papers for detailed analysis, which, in total, provide a fragmented evaluation of 21 CHI schemes. From these 21 schemes, eight schemes were selected for further review (step 5). In order to saturate the information base, the websites of the selected CHI schemes (26-33) were screened.

Quality appraisal

In a realist review all forms of evidence are considered as being equally authoritative when it may contribute to the fuller development of the explanatory framework (21, 22). Instead of papers being assessed against a priori standards for quality appraisal, the individual papers are evaluated for their relevance to the theory under test.

Nevertheless, some evidence may be of poorer quality and reviewers need to flag those issues for the readers (34). The rigor of the included papers is assessed with...
focus on methodological design, analysis, and discussion. A detailed overview of this appraisal could be found in Table 3, which is enclosed in the annex.

The papers could be divided into three groups. The first group describes schemes for their design features (35-42) following a case study approach. In the second group, papers provided a comparative review of CHI schemes giving information about 18 schemes (43-46). A third group contains papers concentrating on the impact of CHI schemes (17-19, 47-56). The performance was assessed in a more systematic way following a defined research question and qualitative or quantitative methods.

Data extraction and analysis

The data extraction and analysis were executed in an iterative way going back and forth between data and theory. While reading all papers and additional information, the members of the research team categorized elements of content and measures, performance outcomes and contextual factors. Subsequently, those categories were discussed within the team and a table reporting information on the eight cases was drawn (see Table 2).

The key program theories: exit or voice

In recent policy discourse, it is predominantly argued that health insurance will improve access to quality care by consumer-directed forms of empowerment (57): "RSBY provides the participating BPL household with freedom of choice between public and private hospitals and makes him a potential client worth attracting on account of the significant revenues that hospitals stand to earn through the scheme" (14). On basis of the stated casual hypotheses, the research team proposed to use...
Hirschman’s notions of exit and voice theory (58) as the root model for pattern matching to identify general mechanisms and contextual determinants of success or failure to improve access to quality care.

Hirschman (1970) developed his framework to analyze ways in which consumers cope with performance deterioration of the delivered services and goods. Basically, he regards consumers as the ultimate source of control over provider responsiveness with two mechanisms at their disposal: exit and voice. Exit refers to the fact that consumers can simply leave and use competitors. Voice refers to the expression of grievance with the aim to change the situation for the better. Voice can be channeled “through individual or collective petition to the management directly in charge, through appeal to a higher authority with the intention of forcing a change in management or through various types of actions and protests, including those that are meant to mobilize public opinion” (58).

The most prominent variation on this model is perhaps the accountability framework presented in the World Development Report (WDR) 2004, Making Service Work for Poor People (59). The WDR framework combines three sets of actors—clients/citizens, service providers and policymakers—and two routes of accountability. Via a long route, citizens could inform policymakers on their needs in terms of quantity, quality, and responsiveness of providers. These, in turn, can hold the providers accountable by enforcing laws through adequate bureaucratic or market-based regulatory measures and sanctions. Via a short route, responsiveness is achieved through direct ‘client power’ or by ‘voting with the feet’ (exit). To make those accountability routes fully functional for poor people, authors have stressed the necessity of an intermediary role played by NGOs, such as, civil society...
organizations, self-help groups and community based organizations (60). These roles could imply the co-production of services to make them more manageable and socio-culturally acceptable (61), pressuring the government from the outside as an organized watchdog, or participating directly in the core functions of government itself (co-governance) (62).

Pattern matching and causal mechanisms

To discuss the underlying mechanisms a combination of competitive elaboration and principled discovery approaches to pattern matching was applied, as described by Mark et al (63). Based on the exit-voice notions and a consultation of the literature on CHI three generative mechanisms were articulated a priori and put to the test against the evidence-base. It is commonly argued that CHI schemes can improve access to quality health care by providing an exit route (M1), co-producing a long voice route (M2), and guarding over the long route of accountability (M3) (23, 25, 64-66). During the review we discovered another currently understudied mechanism: strengthening the short voice route by transforming the power imbalance at the provider–patient interface (M4). The different mechanisms, possible measures and contextual requirements to achieve the expected outcomes are described more in detail in Table 1.

TABLE 1 SOMEWHERE HERE

Results

Indian CHI schemes are very diverse in terms of design, initiator, size, and target populations. This diversity has an impact on the scheme’s measures and the provided content.

Deleted: applied the framework to discuss, among others, the provision of quality health care services to the poor.

Deleted: One way to exert power over providers is by dint of the patient’s money. This is called the ‘exit’ route, where dissatisfied users turn away from a low-performing provider, and possibly go to other providers. When no exit option is available, users can only vent their feelings through ‘voice’. Via a long route, patients could signal political leaders or responsible agencies on their needs in terms of quantity, quality, and responsiveness of the health services. These, in turn, can hold the providers accountable by creating adequate bureaucratic or market-based monitoring mechanisms, or policies to fill gaps in the health infrastructure. Via a short route, the poor patient’s voice directly impacts on the provider’s behavior, and responsiveness is achieved through direct pressure.

If we translate this to the literature on CHI, schemes could increase the exit options of patients by strengthening their purchasing power and removing the financial barriers that impede access to different health care sources (19), by providing them with information and counselling services (20, 21), or by increasing the number of available health care facilities (21). On the other hand, CHI schemes are ascribed the ability to act in the patient’s interest primordially via the long voice route, and improving the technical quality of care by the strategic purchasing and the creation of quality management mechanisms (19, 21, 22).
activities. Four cases under review have health delivery functions (provider type): Action for Community Organisation, Rehabilitation and Development (ACCORD), Jowar Rural Health Insurance (JRHIS), Karuna Trust, and Raigarh Ambikapur Health Association (RAHA). The other cases purchase care from independent providers, both public and private: Kagad Kach Patra Kashtakari Panchayat (KKPKP), SEWA, Uplift India Association (UIA), and Yeshasvini. Further, the insurance risk can be born by the community (mutual type), the NGO (insurer type), or the NGO purchases an insurance product from a formal insurance company (partner–agent type) (45, 67).

(TABLE 2 SOMEWHERE HERE)

Mechanism 1: Exit route

If we explore the exit route in practice, the question to be answered is if the CHI schemes improve access to health care facilities, and hence increase the patients’ freedom of choice. For ACCORD, JRHIS, RAHA, SEWA’s Preferred Provider Systems, Yeshasvini and UIA, an increase in access has been reported resulting in a higher utilization of health services by the target group. In all these cases, except for UIA, schemes provide financial benefits at time of consumption through cashless systems. Although cashless systems are frequently promoted because members do not have to worry about treatment costs before seeking care, the evidence demonstrates that other financial and non-financial barriers exist, which hamper poor people to access health facilities of good quality, and thus, limit exit options.

Under most schemes, indirect costs such as loss of wage, drugs, medical tests and transportation, remain, which mitigate the benefits of the insurance. Further, poor

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peoples’ freedom of choice is often limited because health facilities of good quality are lacking or unknown, especially in rural areas. Some schemes, in particular the provider-driven schemes overcome this by providing health services in the facilities run by them (ACCORD, JRHIS, Karuna Trust and RAHA), but this does not ensure the quality if well-functioning monitoring systems are absent (see further). Others such as UIA provide members with information about which enlisted quality providers are located in their neighborhood through a 24/7 helpline and counseling.

Another way of guaranteeing quality care is by enlisting providers that meet up defined standards. However, enlistment sometimes reinforces inaccessibility. Enlisted providers are not always located close to the beneficiaries nor do they automatically adhere to the defined quality standards, as reported for Yeshasvini, SEWA’s Preferred Provider System and RAHA. Not only does this make the health facilities geographically and financially inaccessible but they also risk becoming socio-culturally alienating. To counter such problems, KKPKP negotiated with the insurance company to waive the required standards. This way, it succeeded in including providers closer to the beneficiaries, but this is at the expense of the quality of care.

Mechanism 2: Co-producing a long voice route

On paper, the eight schemes engage in active strategic purchasing to assure the quality of provided care. These strategic purchasing mechanisms include the enlistment of providers that adhere with quality standards, blacklisting of providers, contracts, provider payment mechanisms like fixed salaries or fee-for-performance, exclusion of harmful treatment from coverage, negotiation with government officials, and social accountability mechanisms. However, most of them face difficulties in ensuring the quality of care.
quality of the provided care. Corruption, fraud and discrimination at the provider–patient interface occur in many schemes: providers release required medical reports only after asking 'processing fees'; members are overcharged and treated rudely; providers prescribe unneeded and harmful treatment; or providers ask informal payments.

The main reason is the malfunctioning of quality management mechanisms to control compliance with defined agreements. In general, most schemes lack the capacities to negotiate successfully with providers over monitoring and accountability. In its Preferred Provider System, for example, SEWA has relatively too few hospitalized members to hold a powerful negotiation position regarding the enlisted hospitals, Other schemes depend on the performance of external actors to monitor providers; government officials (Karuna Trust), third-party administrators (Yeshasvini), or officials from the congregation (RAHA). Those external actors do not always fulfill these tasks properly because of incapability or unwillingness to do so.

Secondly, most strategic purchasing solely focuses on the technical aspects of health care quality (education of providers, treatment protocols, or presence of infrastructure and drugs). Little attention is paid to relational aspects of the clinical encounter. Evidence, however, shows that socio-cultural alienation, discrimination, and problematic relationships with health workers pose important barriers to access quality care.

Thirdly, most schemes reflect a paternalistic understanding of development where the target groups are approached as passive beneficiaries, rather than as active partners. Sometimes they are consulted about their needs, but little room exists for participation in monitoring or quality management. However, the bottom-up approach of JRHIS,
ACCORD, and UIA seems very fruitful in improving the effectiveness of the long voice route. In JRHIS, for example, the target group decides over the salary of health workers considering their performance. The UIA scheme is completely run by the community and members are represented at a high management level of the UIA itself, where they can voice the problems with regard to the quality and search for contextualized solutions. This participatory approach strengthens the trust in the scheme and emancipates members to express the encountered problems with low quality treatment to the management of the scheme.

Mechanism 3: Guarding over the long route of accountability

Most schemes maintain strategic relations with government or other external actors (funding organisations). Some schemes (Yeshasvini, Karuna Trust and SEWA) hold powerful lobby positions with the government and reside in political advisory groups. This lobbying has definitely contributed in putting the issue of health insurance for the poor on the political agenda, but the impact on pressuring the government or professional bodies to regulate the health sector is not visible. Through negotiations with government Karuna Trust, KKPKP and recently ACCORD achieved financial partnerships that allow them to, respectively, give free care and compensate for other indirect costs, fully subsidize the premiums, and cover primary care. Nevertheless, such public partnerships sometimes negatively affect the schemes’ credibility in the target communities. Members of Karuna Trust question the quality of care provided because of the low-quality performance stigma of public sector providers. The partnership with government also pushes KKPKP in a difficult position towards their members. Due to a high claim rejection rate and absence of clear communication by the for profit insurance company, members lose their trust in the union to provide
social protection, and change the social exclusion and discrimination that they experience. It makes them more reluctant to engage in the KKPKP insurance program. However, the contractual mandate to hold the insurance company accountable lies with the municipal government who pays the premium.

Introduction of an additional mechanism 4: Short voice route

Consumer-directed empowerment or co-producing the long route to accountability has little direct impact on the power imbalance that typifies the problematic relationship between providers and poor patients.

The right-based approach of ACCORD, JRHIS, UIA or KKPKP embedded in a broader ideology of emancipation and community building, creates options that challenge these power imbalances. ACCORD overcomes the socio-cultural alienation by selecting providers from the target community itself. In JRHIS and UIA, social workers accompany members during hospitalization. These socially close workers function as guardians of the sick, that is, go-betweens translating patient’s concerns, negotiating a good and respectful treatment, securing the continuity of treatment, and breaking the ceremonial order between blame submitting providers and poor patients who passively accept maltreatment. Also for KKPKP, social workers support members in claiming their health rights by persistently pressuring hospitals to observe the court order that obliges them to provide inpatient care at concessional rates to poor people. These forms of social care generate a sustainable change in attitude of providers towards poor patients by battling the ignorance of poor patients about their rights and because providers fear social pressure and social disclosure by the schemes.

Further, the participatory way of working of the UIA and JRHIS seems to emancipate members in seeking good quality health care, wherein they negotiate with health
workers over the quality of care they expect. In the frequent insurance group meetings, members of UIA exchange information about good and bad providers and the way they dealt with the problematic behavior of the health workers. Through its broader development activities, also JRHIS succeeds in increasing the organizational ability and confidence of its members in claiming their right to demand health care of high quality.

Discussion and conclusion

This realist review discusses underlying mechanisms popularly used by national and international policy makers to promote the introduction of health insurance in India as a solution to improve poor peoples’ access to quality health care, against the background of the experiences of eight CHI schemes. Its value lies in the novelty of a refined explanatory model and in the systematic analysis of the impact of CHI on the quality of provided care, an understudied theme in the research on CHI in India. Currently, only four papers focus on such an issue (48, 50, 52, 53).

A refined explanatory framework

Based on the review of experiences of CHI schemes, we suggest the integration of a fourth mechanism (M4) whereby some CHI schemes seemingly improve access to quality care in a sustainable way: strengthening the short voice route by transforming the power imbalance at the provider-patient interface. There is congruence of this with experiences of CHI schemes in sub-Saharan Africa (68) and Cambodia (69).
fourth mechanism also shares the growing recognition of the need of a transformative
dimension in social protection (70, 71), social policy (72) and social work (73) where
transformation refers to the need of analyzing, resisting and challenging structures of
power at micro and macro levels that underlie social exclusions and vulnerability of
the marginalized groups.

Strengths and Limitations

The review does not provide clear answers to questions as to which intervention
would most effectively improve access to quality health care. Rather, it provides a
critical discussion of ideas that inspire the recent policies to cover the Indian poor
with health insurance. Further, it provides insights in some contextual factors that
influence the success of existing interventions, alerting policymakers to the role that
CHI schemes could play in the social health protection policy, and problems that they
might expect to confront in the complex health sector in India.

A major limitation was the relatively limited evidence base. Because of the contextual
particularity of the commercialized Indian health system, we decided to limit our
review to experiences of the Indian CHI schemes. By combining fragmented pieces of
evidence on performance, based on access and quality measures and contextual
factors, we nevertheless obtained the information necessary to discuss and refine an
explanatory model, which is one of the main aims of a realist review (21, 22).

However, it is methodologically important to check the value of the refined
explanatory framework by using it in other contexts. A similar review with focus on
CHI experiences in sub-Saharan African countries, for example, would provide
interesting comparative insights, but lies outside the scope of this paper.
Why do Indian CHI schemes face difficulties in improving access to quality care?

The success in which the Indian CHI schemes manage to improve access to quality health care is moderated. The review shows that the hypotheses that health insurance could improve this access to quality care by strengthening exit or voice routes do not automatically work out in practice due to several contextual factors.

Exit mechanisms (M1) are hampered due to the shortage of decent health infrastructure in remote areas, remaining direct and indirect costs, health illiteracy and ignorance among marginalized target groups, and other socio-cultural barriers. With limited exit options, strengthening the voice of the poor has been promoted as a valuable alternative. However, in the absence of some back up of a regulatory framework on a national level, it is difficult for CHI schemes to strengthen the long voice route effectively (M3). Moreover, the co-production of a long voice route on lower governance level could improve the quality as long as all stakeholders involved actively take up their responsibility (M2). It seems, however, that most schemes have little power in the bargains with providers, insurance companies, professional associations, and government over quality standards, price negotiations, and accountability mechanisms.

Further, the review shows that precisely those schemes that also focus on the members’ emancipation via the short voice route (M4) seem to successfully improve access to quality care, even if exit and long voice routes are restricted by other contextual factors. This supports the argument that a good provider–patient relation is an essential part of interventions for quality improvement and that the power imbalance in this relations should be challenged to provide effective social health protection.
The RSBY is the most inclusive and comprehensive social health protection intervention of the Indian government so far. Health insurance is expected to improve the quality of health care by financially empowering (M1) and introducing strategic purchasing mechanisms (M2). If carefully integrated in the NRHM, the RSBY promises to reduce the health insecurity of the Indian poor to a minimum. It will, however, not succeed completely in bringing ‘accessible, affordable, accountable and good quality health care’ if the focus remains on increasing financial means and freedom of choice in a top-down manner. Next to the improvement of the health infrastructure, adequate mechanisms are needed to regulate India’s health system and to ensure the quality of care both in terms of technical quality as well as the attitude of providers towards the poor. NGOs and community based organizations, such as CHI schemes, have potentials in creating and maintaining the long and short voice routes as shown in the review. Nevertheless, the Indian government needs to attribute to these organizations a more active role than merely advertising the RSBY. It has to tap and facilitate actively the potential of such organizations to, effectively, co-produce community based quality assurance mechanisms to emancipate the target group so that they transform from mere passive beneficiaries into active participants in their health.
Funding

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### Figure 1. Selection of the evidence-base

<table>
<thead>
<tr>
<th>Step 1</th>
<th>Literature search using academic search engines, SSRN, databases of research institutes and Google Scholar</th>
<th>Total: 1133</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 2</td>
<td>Papers with mere focus on (a) technical setup, (b) enrollment determinants, (c) feasibility &amp; viability, (d) reduction in health expenditure or (e) context outcomes</td>
<td>Total: 84</td>
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<tr>
<td>Step 3</td>
<td>Papers with geographic focus on India</td>
<td>Total: 55</td>
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<td>Step 4</td>
<td>Papers assessing a specific scheme or schemes</td>
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<tr>
<td>Step 5</td>
<td>Selection of CHI schemes</td>
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<tr>
<td>Step 6</td>
<td>Analysis of website of 8 schemes as well as mission documents, information leaflets, ... for documenting programme theories, benefit packages and measures in use</td>
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</tbody>
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1 The number of each individual source state the additional new information, i.e. all papers, which are already identified using the source above it, are not counted.
<table>
<thead>
<tr>
<th>Mechanism</th>
<th>Possible measures</th>
<th>Contextual requirements</th>
<th>Outcomes</th>
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<tbody>
<tr>
<td><strong>M1 Exit route</strong></td>
<td>• reduction of financial barriers via insurance: cashless or reimbursement</td>
<td>• market competition with availability of quality providers</td>
<td>Low performing providers improve the quality of care to prevent that poor insured patients buy their health care elsewhere</td>
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<tr>
<td>CHI increases poor peoples’ purchasing power and freedom of choice to access quality providers and exit low performing providers</td>
<td>• increase in number of available health care facilities by co-production</td>
<td>• fully informed members capable of evaluating both technical and interpersonal quality of care</td>
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<td>• provision of information and counseling</td>
<td>• no other financial and socio-cultural barriers</td>
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<td>• no power imbalance at provider/patient interface</td>
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<td>Mechanism</td>
<td>Possible measures</td>
<td>Contextual requirements</td>
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</tr>
<tr>
<td>M2 Co-producing a long</td>
<td>• enlistment of providers</td>
<td>• availability of quality providers who could be enlisted</td>
<td>Providers improve and maintain standards of care to ensure that they remain enlisted and ensure a steady income over time</td>
</tr>
<tr>
<td>voice route</td>
<td>• contracts stipulating quality standards</td>
<td>• schemes informed about quality performance of providers</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• treatment protocols</td>
<td>• schemes in a position to bargain</td>
<td></td>
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<tr>
<td></td>
<td>• performance-for-payment mechanisms</td>
<td>• schemes capable of monitoring enlisted providers or having external actors doing this</td>
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<tr>
<td></td>
<td>• monitoring and disciplinary action</td>
<td>• fully informed insured members report quality problems experienced</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• social accountability</td>
<td></td>
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<tr>
<td>Schemes strategically</td>
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<tr>
<td>purchase health care from</td>
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<tr>
<td>providers, which</td>
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<tr>
<td>gives a mandate to set</td>
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<tr>
<td>quality standards</td>
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</tbody>
</table>

**Contextual requirements**
- availability of quality providers who could be enlisted
- schemes informed about quality performance of providers
- schemes in a position to bargain
- schemes capable of monitoring enlisted providers or having external actors doing this
- fully informed insured members report quality problems experienced
<table>
<thead>
<tr>
<th>Mechanism</th>
<th>Possible measures</th>
<th>Contextual requirements</th>
<th>Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>M3 Guarding over the long voice route</td>
<td>• social mobilization</td>
<td>• schemes have a strong social network</td>
<td>Well-functioning monitoring and disciplinary systems</td>
</tr>
<tr>
<td></td>
<td>• networking and lobbying</td>
<td>• government capable of and willing to</td>
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</tr>
<tr>
<td></td>
<td>• social pressure</td>
<td>implementing a regulatory framework</td>
<td></td>
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<td></td>
<td>• social disclosure</td>
<td>• self-regulating provider associations</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• feedback mechanisms and participation</td>
<td>• room for civil society in lobbying and agenda</td>
<td></td>
</tr>
<tr>
<td></td>
<td>of communities in the schemes</td>
<td>• setting</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>• providers improve</td>
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<td>• their standards of care</td>
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<td></td>
<td>• to avoid sanctions by government or other</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• external actors</td>
<td></td>
</tr>
<tr>
<td>Mechanism</td>
<td>Possible measures</td>
<td>Contextual requirements</td>
<td>Outcomes</td>
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</tr>
<tr>
<td>M4 Short voice route</td>
<td>• community health workers, social workers or NGO-doctors</td>
<td>• members capable of evaluating both technical and interpersonal quality of care</td>
<td>Improvement of relationship between providers and patients</td>
</tr>
<tr>
<td></td>
<td>• guardian of the sick &amp; socio-cultural translator</td>
<td>• providers start dialogue with patients</td>
<td>Increase in poor patients’ confidence to negotiate with providers</td>
</tr>
<tr>
<td></td>
<td>• health education</td>
<td>• providers are not opportunistically responding to patients’ demands</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• participation and capacity building</td>
<td>• providers accept presence of community health workers, social workers or NGO-doctors during clinical encounter</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• facilitating development of social capital</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Name (year)</td>
<td>State</td>
<td>State</td>
<td>State</td>
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<tr>
<td>ACCORD (1992)</td>
<td>Tamil Nadu</td>
<td>Maharashtra</td>
<td>Karnataka</td>
</tr>
<tr>
<td>JRHIS (1978)</td>
<td>Maharashtra</td>
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<td>Karuna Trust (2002)</td>
<td>Karnataka</td>
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<tr>
<td>KKPKP (2003)</td>
<td>Maharashtra</td>
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</tbody>
</table>

### (a) Typology
- (a) partner-agent (health NGO)
- (b) development organization

### (b) Initiator
- (a) mutual (provider)
- (b) hospital

### Content
- **Insurance for hospitalization**
- Coverage of primary care in NGO health centre and hospital
- Free primary care via community health worker (CHW)
- Insurance for hospitalization and outpatient care at NGO hospital
- Free hospitalization in public centre
- Subsidized outpatient care
- Compensation for loss of wage, drugs and transportation
- Insurance for hospitalization
<table>
<thead>
<tr>
<th>Measures</th>
<th>Cashless system</th>
<th>Cashless system</th>
<th>Cashless system</th>
<th>Reimbursement</th>
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<tr>
<td></td>
<td>Counseling via CHW</td>
<td>Counseling via CHW</td>
<td>Social workers in hospital</td>
<td>Counseling via social workers</td>
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<td>CHW and doctors from community</td>
<td>Social accountability</td>
<td>Top-down implementation</td>
<td>Quality monitoring by government or insurance</td>
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<td></td>
<td>Member participation</td>
<td>Member participation</td>
<td>Nested in social program</td>
<td>Top-down implementation</td>
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<tr>
<td></td>
<td>Feedback mechanisms</td>
<td>Feedback mechanisms</td>
<td>Capacity building</td>
<td>Lobbying and social mobilization</td>
</tr>
<tr>
<td></td>
<td>Nested social program</td>
<td>Nested in social program</td>
<td></td>
<td>Nested in social program</td>
</tr>
<tr>
<td>Outcomes</td>
<td>(a) improved access, indirect costs</td>
<td>(a) improved access</td>
<td>(a) improved access, non-financial barriers</td>
<td>(a) non-financial barriers, discrimination, indirect costs</td>
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<tr>
<td>(a) access</td>
<td>(b) increase in technical &amp;</td>
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<td>(b) irrational treatment, corruption, provider fraud</td>
<td>(b) irrational treatment, abuse of patients, provider fraud</td>
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<td>(b) quality</td>
<td>interpersonal quality of care</td>
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</tr>
<tr>
<td><strong>Context &amp; stake holders</strong></td>
<td>M1: rural: few health facilities</td>
<td>M1: rural: few health facilities</td>
<td>M1: rural: few health facilities</td>
<td>M1: urban: many health facilities</td>
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<tr>
<td>M2: community-based &amp; participatory character increases trust in NGO</td>
<td>M2: community-based &amp; participatory character increases trust in NGO</td>
<td>M2: little involvement of members in running scheme</td>
<td>M2: NGO related facilities increase monitoring, social accountability mechanisms remain a government responsibility</td>
<td>M2: NGO run facilities increase monitoring, fixed salary of providers</td>
</tr>
<tr>
<td>Name (year)</td>
<td>locality</td>
<td>(a) Typology</td>
<td>(b) Initiator</td>
<td>Content</td>
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<td>------------------------</td>
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</tr>
<tr>
<td>RAHA (1980)</td>
<td>Chattisgar</td>
<td>(a) insurer (provider)</td>
<td>(a) partner-agent (union)</td>
<td>Free primary and outpatient care via CHW and NGO</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>(b) union</td>
<td>Insurance for hospitalization</td>
</tr>
<tr>
<td>SEWA (1992)</td>
<td>Gujarat</td>
<td></td>
<td>(b) micro finance institution</td>
<td>- Insurance for hospitalization</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>(b) public-private partnership</td>
<td>- Discount outpatient coupons</td>
</tr>
<tr>
<td>UIA (2003)</td>
<td>Maharashtra</td>
<td>(a) insurer (mutual)</td>
<td>(b) micro finance institution</td>
<td>- Insurance for selected surgeries and related out patient</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>(b) public-private partnership</td>
<td>- Diagnostic tests at discount rates</td>
</tr>
<tr>
<td>Yeshavini (2003)</td>
<td>Karnataka</td>
<td>(a) insurer (charity)</td>
<td>(b) public-private partnership</td>
<td></td>
</tr>
<tr>
<td>Measures</td>
<td>SEWA I</td>
<td>SEWA II</td>
<td>Reimbursement</td>
<td>Cashless system</td>
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<tr>
<td>Cashless system</td>
<td>Top-down implementation</td>
<td>SEWA I + cashless in</td>
<td>Counseling via CHW &amp;</td>
<td>Top-down implementation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Top-down implementation</td>
<td>doctor</td>
<td>Enlistment of providers</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Social workers</td>
<td>- 24x7 helpline</td>
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<td></td>
<td>help with</td>
<td>Enlistment of providers</td>
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<td></td>
<td></td>
<td>claims</td>
<td>Feedback mechanisms</td>
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<td></td>
<td></td>
<td>Nested in social</td>
<td>Member participation</td>
<td></td>
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<td>program</td>
<td>Capacity building</td>
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<td></td>
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<td></td>
<td>Nested in social program</td>
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</tbody>
</table>

*SEWA I and SEWA II are nested in a social program.*
<table>
<thead>
<tr>
<th>Health care outcomes</th>
<th>(a) improved access, indirect costs</th>
<th>(b) irrational treatment, financial barriers, indirect costs</th>
<th>(b) irrational treatment, financial barriers, indirect costs</th>
<th>(a) improved access, non-financial barriers, indirect costs</th>
<th>(b) increase in technical &amp; interpersonal quality of care</th>
<th>(b) increase in technical quality</th>
<th>(b) provider fraud</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) access</td>
<td>costs</td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>(b) quality</td>
<td>provider fraud</td>
<td></td>
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</tr>
</tbody>
</table>
Context & stake holders

M1: rural: rural: few health facilities
M2: trust in NGO among Christians, run ‘for people’ (vs. ‘with people’)
M2: health network monitoring is responsibility of congregations
M3: ruled by ad hoc events, difficult position as Christian organization
M4: patient & provider opportunism

M2: trust in NGO, control of members fraud but not of provider fraud
M2: no formal contract with providers, NGO has low negotiation power
M3: lobbying power as ‘the example’
M4: provider opportunism, reproduction of feelings of exclusion

M2: participatory character increases trust in NGO
M2: formal contracts and monitoring is responsibility of TPA
M3: informal ties with government
M4: guidance & emancipation increase confidence to claim quality care

M1: urban: many health facilities
M2: trust in NGO
M2: ‘run for people’, charity
M2: formal contracts,
M3: lobbying power as ‘the example’
M4: members have little voice to claim their rights

M4: patient & provider opportunism
Figure 2. Refined explanatory framework on how CHI schemes improve access to quality health care for poor people

(Adapted from the World Development Report 2004, Making Services Work for Poor People)
### Table 3. Quality appraisal of the included papers

<table>
<thead>
<tr>
<th>Authors (ref)</th>
<th>Purpose of paper</th>
<th>Rigor</th>
<th>Relevancy (♦ - ♦♦♦♦♦)</th>
</tr>
</thead>
<tbody>
<tr>
<td>scheme (s)</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Ahmed (mimeo)</td>
<td>Descriptive case studies</td>
<td>a) methodology</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Describe uniqueness of KKP KP, and constraints, needs and aspirations of stakeholders</td>
<td>b) data</td>
<td></td>
</tr>
<tr>
<td>(35)</td>
<td>Consultancy report</td>
<td></td>
<td></td>
</tr>
<tr>
<td>KKP KP</td>
<td></td>
<td>a) Descriptive statistics, but methodology for data collection &amp; analysis</td>
<td></td>
</tr>
<tr>
<td></td>
<td>strategy not made explicit</td>
<td>b) Informal meetings with beneficiaries &amp; formal interviews with other stakeholders: trade union, insurer, hospitals</td>
<td></td>
</tr>
<tr>
<td>(36)</td>
<td>and identify constraints</td>
<td>a) Descriptive statistics, but lot of extrapolation</td>
<td></td>
</tr>
<tr>
<td>RAHA</td>
<td>and areas for improvement</td>
<td>b) Discussions with stakeholders, data from records &amp; reports</td>
<td></td>
</tr>
<tr>
<td>Authors (ref)</td>
<td>Purpose of paper</td>
<td>Rigor</td>
<td>Relevancy (♦ - ♦♦♦♦♦)</td>
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<tr>
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</tr>
<tr>
<td>Garand (2005) (37)</td>
<td>Assess the evolution and performance of SEWA since the development of the business plan</td>
<td>Evaluation report a) Methodology for data collection &amp; analysis strategy not made explicit</td>
<td>a) ♦♦</td>
</tr>
<tr>
<td>SEWA</td>
<td></td>
<td>b) Literature review, discussions with stakeholders, data from records &amp; reports</td>
<td>b) ♦</td>
</tr>
<tr>
<td>Jajoo et al (2004)</td>
<td>Describe the genesis and development of JRHIS</td>
<td>National peer reviewed article a) Critical description by staff, but analysis strategy not made explicit</td>
<td>a) ♦</td>
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<tr>
<td>JRHIS</td>
<td></td>
<td>b) No description of data collection</td>
<td>b) ♦♦</td>
</tr>
<tr>
<td>Kuruvilla et al</td>
<td>Examine reasons for success and evaluate potential transferability of Yeshasvini</td>
<td>International peer reviewed article a) Methodology for data collection &amp; analysis strategy not made explicit</td>
<td>a) ♦</td>
</tr>
<tr>
<td>Yeshasvini</td>
<td></td>
<td>b) Literature review, discussions with stakeholders, data from records &amp; reports</td>
<td>b) ♦</td>
</tr>
<tr>
<td>Authors (ref)</td>
<td>Purpose of paper</td>
<td>Rigor</td>
<td>Relevancy (♦ - ♦♦♦♦♦)</td>
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<td>(40)</td>
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<td>a) Part of comparative study using case study designs (Infosure), but</td>
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<tr>
<td>UIA</td>
<td></td>
<td>methodology for data collection &amp; analysis strategy not made explicit</td>
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<tr>
<td></td>
<td></td>
<td>b) Interviews with stakeholders &amp; data from reports</td>
<td></td>
</tr>
<tr>
<td>Radermacher et al</td>
<td>Assess the evolution and performance of Karuna Trust since the</td>
<td>Evaluation report</td>
<td>a) ♦♦♦♦</td>
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<td>(2005) (41)</td>
<td>development of the business plan</td>
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<tr>
<td>Karuna Trust</td>
<td></td>
<td>a) Methodology for data collection &amp; analysis strategy not made explicit</td>
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<tr>
<td></td>
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<td>b) Literature review, discussions with stakeholders, data from records &amp;</td>
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<td>reports</td>
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<th>Relevancy (♦ - ♦♦♦♦♦)</th>
</tr>
</thead>
<tbody>
<tr>
<td>scheme(s)</td>
<td>Assess the evolution and performance of Yeshasvini since the development of the business plan</td>
<td>Evaluation report</td>
<td>a) ♦♦♦♦</td>
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<tr>
<td>Yeshasvini</td>
<td></td>
<td>b) Literature review, discussions with stakeholders, data from records &amp; reports</td>
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<td></td>
<td></td>
<td>Evaluation report</td>
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<td></td>
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<td>a) Methodology for data collection &amp; analysis strategy not made explicit</td>
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<td></td>
<td></td>
<td>b) Literature review &amp; discussions with stakeholders</td>
<td></td>
</tr>
<tr>
<td>Acharya et al (2005) (43)</td>
<td>Evaluate CHI schemes as alternative for financing 4 schemes in Gujarat in health care expenditure</td>
<td>National peer reviewed article</td>
<td>a) ♦♦</td>
</tr>
<tr>
<td></td>
<td></td>
<td>a) Methodology for data collection &amp; analysis strategy not made explicit</td>
<td>b) ♦♦♦</td>
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<tr>
<td></td>
<td></td>
<td>b) Literature review &amp; discussions with stakeholders</td>
<td></td>
</tr>
<tr>
<td>Authors (ref)</td>
<td>Purpose of paper</td>
<td>Rigor</td>
<td>Relevancy (&lt; 4)</td>
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<tr>
<td><strong>Devadasan et al</strong> (2004) (44)</td>
<td>12 Indian schemes Describe CHI schemes (context, design, management) and impact</td>
<td>National peer reviewed article</td>
<td>a) Methodology for data collection &amp; analysis strategy not made explicit</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>b) Literature review, discussions with stakeholders &amp; data from records &amp; reports</td>
</tr>
<tr>
<td><strong>Devadasan et al</strong> (2006) (45)</td>
<td>10 Indian schemes Describe CHI schemes (context, design, management) and impact</td>
<td>International peer reviewed article</td>
<td>a) Inductive case study methodology</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>b) Literature review, discussions with stakeholders &amp; data from records &amp; reports, but methodology for data collection not made explicit</td>
</tr>
</tbody>
</table>

**Purpose of paper:**
- a) methodology
- b) data

**Rigor:**
- a) access
- b) quality

**Relevancy:**
- a) access
- b) quality
<table>
<thead>
<tr>
<th>Authors (ref)</th>
<th>Purpose of paper</th>
<th>Rigor</th>
<th>Relevancy (♦ - ♦♦♦♦♦)</th>
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<tbody>
<tr>
<td>scheme(s)</td>
<td></td>
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<tr>
<td>Ranson (2003) (46)</td>
<td>Review the experience of 12 Indian schemes: impact on health system goals, hospital access &amp; protection</td>
<td>a) Methodology for data collection &amp; analysis strategy not made explicit b) Literature review &amp; field visits, but bias in favor of well documented schemes</td>
<td>a) ♦♦♦ b) ♦</td>
</tr>
<tr>
<td>Yeshasvini</td>
<td>treatment outcomes</td>
<td></td>
<td></td>
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<tr>
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<td>Relevancy (♦ - ♦♦♦♦♦)</td>
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<tr>
<td>Bauchet et al (submitted for publication) (48)</td>
<td>Measure how the scheme improve the quality of provided care</td>
<td>a) methodology</td>
<td>a) ♦♦♦♦</td>
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<td></td>
<td></td>
<td>b) data</td>
<td>b) ♦♦♦♦♦</td>
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<td>UIA</td>
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<td>Devadasan et al (2004) (49)</td>
<td>Analyze performance vis-à-vis access to hospitalization</td>
<td>a) Qualitative analysis &amp; descriptive statistical analysis</td>
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<td>b) Interviews with key informants, data from records &amp; reports</td>
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<td>b) Panel survey</td>
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International peer reviewed article
National peer reviewed article
<table>
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<tr>
<th>Authors (ref)</th>
<th>Purpose of paper</th>
<th>Rigor</th>
<th>Relevancy (♦ - ******)</th>
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| Devadasan et al (In press) (50) | Measure impact on quality of care using patient satisfaction as a proxy | International peer reviewed article | a) Comparison between 2 schemes and insured and uninsured patients through a statistical analysis (median, proportions & confidence intervals)  
  b) Literature review, FGD and structured questionnaire on 19 satisfaction indicators using a dichotomous scale | a) ******  
  b) ****** |
| ACCORD | Assess impact on members’ well being, satisfaction & utilization of additional services | Research report | a) Descriptive statistical analysis  
  b) Quantitative questionnaire with open-ended questions & secondary data | a) ******  
  b) ♦ |
| Dixit et al (2008) (51) | Assess impact on members’ well being, satisfaction & utilization of additional services | Research report | a) Descriptive statistical analysis  
  b) Quantitative questionnaire with open-ended questions & secondary data | a) ******  
  b) ♦ |
<table>
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<tr>
<td>scheme(s)</td>
<td></td>
<td>a) methodology</td>
<td></td>
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<td>b) data</td>
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<td>Dror et al (2009)</td>
<td>Identify impact on protection and equitable access to health care</td>
<td>International peer reviewed article</td>
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<td>(19)</td>
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<td>a) Univariate statistics, parametric (Anova, t-test) &amp; non-parametric tests</td>
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<td>BAIF, UIA, Nidan</td>
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<td>b) Household survey and qualitative interviews with managers</td>
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<td>Michielsen et al</td>
<td>Analyze impact on access to affordable health care of good quality</td>
<td>International congress paper</td>
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<td>(2009) (52)</td>
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<td>a) Realist evaluation using qualitative analysis</td>
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<td>CSSC, KKPKP, UIA</td>
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<td>b) Focus group discussion with female members in different slums &amp; quantitative data on socio-economic status</td>
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<td>a) access</td>
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<td>Ranson et al (2001)</td>
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<td>b) data</td>
<td>b) quality</td>
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<td>SEWA</td>
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<td>Ranson et al (2006)</td>
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<td>b) Household surveys of 3 populations</td>
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<td>(17) SEWA</td>
<td>Analyze barriers that hinder patients to fully use the benefits of the scheme</td>
<td>a) Qualitative analysis&lt;br&gt;b) FGD with members and grassroots level staff</td>
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<td>Sinha et al (2006)</td>
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