

Publicly Funded Health Insurance Schemes (PFHIS): A Systematic and Interpretive Review of Studies Does Gender Equity Matter?

Rajalakshmi RamPrakash¹ and Lakshmi Lingam²

With the announcement of the National Health Protection Scheme in February 2018 by the Indian Government, the policy direction based on an insurance-based model of health financing as a panacea for all ill-health has become even more evident than in the past. This is surprising, given that the evidence on the positive impact of a publicly funded health insurance scheme (PFHIS) is equivocal. There are only a handful of reviews of studies on national and state level PFHIS on equity dimensions, and none of them have applied a gender lens.

The current paper aims to provide a systematic as well as an interpretive review of available literature on PFHIS in India by employing a gender and health equity lens. It aims to understand the evidence on gender dimensions in process indicators (awareness, enrolment, and utilization) and impact indicators (health expenditures and coping mechanisms) of PFHIS. It also aims to answer why we do not know enough about the gendered aspects of PFHIS given their existence for more than a decade.

Using PRISMA techniques, a total of 80 papers covering 17 specific states in India were reviewed to aggregate the evidence on gender differences. For the interpretive review, the same studies were critically reviewed to understand the nature of gender analysis and to uncover the reasons for the thin evidence emerging on gender equity in PFHIS.

Except on awareness where women fared low, there was no conclusive evidence on gender differences in enrolment and utilization. As most studies used households as units of analyses, gender differences in process and impact were difficult to assess. The exception was the vulnerability of female-headed households. Many sexual and reproductive health illnesses which cause out of pocket expenditures for women were not included in schemes and concerns of over-utilization of certain procedures among women were found.

The review found that available evidence shows the need for improving programme design and implementation of PFHIS in order to fix existing gender gaps in addressing both vertical and horizontal health needs. There is need for a comprehensive framework to monitor and evaluate PFHIS using gender-based indicators which go beyond simplistic sex-disaggregation of data. Research using mixed methods and inter-disciplinary approaches with an explicit focus on gender are imperative.

Keywords : publicly funded health insurance, universal health coverage, gender equity, out-of- pocket expenditure, systematic review, interpretive review, India

¹ PhD Scholar, Tata Institute of Social Sciences, Email:rajalaksh@gmail.com

² Professor, Tata Institute of Social Sciences, Email:lakshmi.lingam@gmail.com

A growing body of literature points to increasing health insecurity leading to the impoverishment of households worldwide (Peters et al., 2002 & Wagstaff, 2002). About 150 million people globally suffer financial catastrophe annually because of out-of-pocket (OOP) payment for health services (Xu et al., 2009). According to India's draft National Health Policy 2015 (Ministry of Health and Family Welfare [MoHFW], 2014), every year over 63 million persons in India faced poverty due to escalating healthcare costs. The National Health Accounts for 2013-14 estimates that the largest share of health financing in India is through household OOP payments, constituting 69.1 per cent of total health expenditure (National Health State Resource Centre [NHSRC], 2016).

The World Health Organization (WHO) defines Universal Health Coverage (UHC) as ensuring that all people have access to needed promotive, preventive, curative and rehabilitative health services, of sufficient quality to be effective, while also ensuring that people do not suffer financial hardship when paying for these services. Though India is committed to achieving UHC, there is no common understanding among stakeholders on what constitutes UHC and how to achieve it (Sundararaman et al., 2014). So far in India, social health protection has focused mainly on the formal sector employees through the Employee State Insurance card Scheme (ESIS) and Central Government Health Insurance card Scheme (CGHS). A small proportion is covered under Community Based Health Insurances (CBHI), micro-insurances and voluntary household insurances. Since 2007, India has also been serving as an experimental ground for several Publicly Funded Health Insurance Card Schemes (PFHIS). The Rashtriya Swasthya Bima Yojna (RSBY) (translates to the National Health Insurance Card Scheme) introduced by the Central Government and many other state-initiated schemes targeting mostly the Below Poverty Line (BPL)³ population captured national and international attention. RSBY was rolled out in 26 states (457 districts) in India (www.rsby.gov.in), with a few states like Kerala and Meghalaya expanding the original scheme. States like Andhra Pradesh, Telangana, Karnataka, Tamil Nadu, Maharashtra, and Goa initiated their own state health insurance Card schemes. These health insurance Card schemes mark a departure from a supply side health-financing model in the country to a demand-side financing model, and from the role of the Government as a direct provider of health services to a contractor funding the purchase of services. They are different from CBHIs and micro-insurance card schemes that are not tax-funded. Under the publicly financed schemes, vulnerable households are identified, enrolled and are entitled to avail cashless health services for select procedures from a pool of public and private health service providers in return for a premium usually paid by the Government to an insurer. These schemes allegedly contributed an increase from 55 million insured persons in India in 2003-04 to about 370 million in 2014, covering one-fourth of the population (MoHFW, 2014). They are also popularly considered an effective route to achieving UHC.

There are wide differences between different schemes with respect to geography, launch period, target population, premium contributions, packages, and terms of conditions with private parties, administration, and governance. Some schemes are administered through an independent society or trust established by the state government. Evaluation of schemes were carried out internally as well as externally. Studies carried out on PFHIS also differ in their designs, methods, and techniques. So far there have been two reviews of studies - Nandi, Holtzman, Malani, and Laxminarayana in 2015 and a systematic review of the publicly financed schemes in India based on experimental studies which used a control group by Prinja, Chauhan, Karan, Kaur and Kumar in 2017. Nandi et al., (2016) attempted a brief review of literature from a gender lens and found the literature to be limited

to enrolment and inappropriate care. Apart from these, there have not been any systematic reviews of Indian PFHIS on social and gender equity dimensions.

WHO (2011) defines Gender Equity as ‘a process of being fair to women and men with the objective of reducing unjust and avoidable inequality between women and men in health status, access to health services and their contributions to the health workforce.’ PFHIS aim to improve access to healthcare services by removing the financial constraints because of which low income men and women may forego or delay seeking health care. It is well-established that gender is a crucial social determinant of health and healthcare access and yet the role of gender in studies on healthcare utilization does not receive explicit attention when compared to race, caste and economic class (Saha & Ravindran, 2002, Sen et al., 2002).

Gender and health-equity concerns surrounding women’s access to healthcare treatments point to the following factors: (1) Biologically, some of the health needs of women are unique, while some others are similar to those of men, requiring integration of vertical and horizontal equity. (2) Gender power relations within the household allow women limited access to financial resources and affects healthcare utilization when it is determined by the ability to pay. (3) The vast majority of women work in the informal economy and in the lowest rungs of the formal sector. Current social security, and protection policies have to make special efforts to reach out to women workers. Hence the health risks, needs, and experiences of financial burden due to illnesses are likely to be different for men⁴ and women. However, there is an absence of any systematic application of a gender lens in the evaluation of PFHIS to understand the impact on gender equity at the policy and programme levels.

The current paper aims to review evidence from studies on Indian PFHIS on gender and health equity. The review was undertaken by the first author as a part of her doctoral dissertation.⁵ The following research questions guided the literature review:

1. What are the focus areas of different studies on PFHIS?
2. What are the findings on process indicators such as awareness, enrolment, and utilization that relate to gender and health equity from studies on PFHIS?
3. What are the findings on outcome indicators such as health expenditures and coping mechanisms that relate to gender and health equity from studies on PFHIS?
4. What are the frameworks and methodologies used in studies to unearth gender and health equity?
5. What are the emerging knowledge gaps in the scholarship on gender and health equity in PFHIS and what could be some of the reasons for these?

This paper is structured as follows: methods and results of the literature review are presented first and discussed, followed by the rationale and methods for conducting an interpretive review. A discussion on gender equity dimensions from both these reviews is followed by suggestions for changes in policy, implementation, and research on PFHIS.

⁴ A benchmark used by Government of India and its states on economic grounds to identify possible beneficiaries for various schemes.

⁵ The Ph.D. dissertation explored the different gendered dimensions of equity in the design, processes, and outcomes of PFHIS.

Literature Review: Methods

We closely followed the PRISMA guidelines 2009 (Moher et al., 2009) in searching and selecting studies for review. Internet-Based research was done using search engines like Google (Scholar), MEDLINE, Science Direct and other e-resources. Key words used for the search were combinations of:

- “universal health coverage” and “social health protection” + “gender” and/or “women”
- “health insurance card”, “health care financing”- + “India” and + “gender” and/or “women”
- “Government Sponsored Health Insurance card,” “Publicly Funded Health Insurance card,” “Rashtriya Swasthya Bima Yojna” (and state-specific scheme names)+ “India” and + “gender” and “women.”

Official websites of the various schemes were searched, and experts were contacted to expand the literature-base. Research papers, as well as commentaries, reviews, working papers, essays, conference papers and abstracts published in English between 2010 to April 2017 on national and state-specific PFHIS in India, were downloaded. Out of the 112 items downloaded, literature exclusively on community-based or employer-based insurance card was excluded and so were articles that focused on principles of management. Studies that singularly focused on design, governance and political economy aspects of PFHIS were also excluded. After removing duplicates, the full text of a total of 80 papers (including 18 from RSBY website) which focused on the process level indicators (awareness, enrolment, and utilization) or impact (expenditures, methods of coping) was finally selected for detailed review. A total of 17 states in India were covered through this review.

A proforma for capturing and categorizing data from the studies was developed. Initially, this included details such as year of publication, type of research design, sources of data, location, duration, sample size, results and key findings. Later more categories were added from the interpretive review. The summary of characteristics of the selected studies is presented in Table 1 and Table 3.

Table 1: General Characteristics of Reviewed Studies on PFHIS in India

| Claims data | Large surveys NSSO, IHDS |
|--|--|
| <p>Selvavinayagam & Vijayakumar (2012) - Tamil Nadu Yelliah (2012) - Andhra Pradesh Krishnaswamy & Ruchismita(2011) - National Rao et. al. (2012)- Andhra Pradesh CBPS (2015) - Karnataka Jain (2011) - National Grover &Palacios(2011) - National Dudala et. al. (2013) - Andhra Pradesh Reddy et. al. (2011) - National La Forgia &Nagpal (2012) - National Reddy &Mary (2013) - Andhra Pradesh Sharan (2014) - National Jain (2014) - National Kurian (2015) - National</p> | <p>Narayana (2010) – National Fan, Karan ,Mahal(2012) - Andhra Pradesh Sood et al.(2014) - Karnataka Selvaraj & Karan(2012) - Andhra Pradesh, Tamil Nadu, Karnataka Sharawat & Rao (2012) - National Ravi & Bergkvist (2014) - Andhra Pradesh, Tamil Nadu, Karnataka Sahoo& Madheswaran(2014) - National Shoree & Ruchismita (2014) - National Rao, Katyal et. al. (2014) - Maharashtra, Andhra Pradesh Katyal et. al. (2015) - Maharashtra, Andhra Pradesh Dror &Vellakal (2012) - National Raza et. al. (2016) - Uttar Pradesh, Bihar</p> |
| <p>Primary (Survey only) Yelliah (2012) - Andhra Pradesh Mitchell, Mahal, Bossert (2011) - Andhra Pradesh Joseph & Rajagopal (2011)-Tamil Nadu Pughazendhi et. al. (2014) - Tamil Nadu Nandi et. al. (2016) - Chhattisgarh Gupt et. al. (2016) - Himachal Pradesh Devadasan et. al.(2013) - Gujarat Ghosh (2014) - Maharashtra Nandi, Nundy, et. al. (2012) - Chhattisgarh Dhanaraj (2015) - Andhra Pradesh Das & Leiono (2011) - Delhi Mazumdar et. al. (2016) - Jharkhand, West Bengal Rana et. al. (2016) - Gujarat Neena et. al. (2016) – Kerala Bhageerathy et al. (2016)-Meghalaya</p> | <p>Mixed Methods Rao (2009) – Andhra Pradesh Rent & Ghosh (2015) - Maharashtra Vijay (2012) - Karnataka Rao et. al. (2011) - Karnataka Wagle& Shah (2017)- Maharashtra Sabharwal et. al. (2012) - Madhya Pradesh, Uttar Pradesh Nair (2015) – Kerala Mishra & Sebastian (2014)- Chhattisgarh</p> |
| <p>Primary (qualitative - interviews, focus group discussions, participant observations) Cerceau (2012) - Haryana Dasgupta et al. 2013-Chhattisgarh Narasimhan et. al.(2014) - Andhra Pradesh Karpagam et. al.(2016) - Karnataka Virk & Atun (2015) - Delhi Virk & Surinder(2016)- Delhi</p> | |

Source: Authors

Literature review: Results

In this section, results of the review attempt to answer Review Questions no. 1, 2 and 3. Findings are organized based on the common themes around which the studies presented their findings. Under each parameter, the findings from studies reviewed are presented and their implications for gender and health equity are discussed. Any finding with implications for gender equity, even when not accompanied by sex-specific data, is also discussed in this paper.

Process Indicators in PFHIS and Gender Equity

Tracking the process level indicators in health programmes help to focus on the implementation process, assess how well a programme is being implemented, how much the implementation varies from one location to another, if and how it achieves the target and quality dimensions. This allows for understanding the equity dimensions, the processes of inclusion/exclusion and how policy translates itself into implementation levels through written and unwritten norms. In the context of PFHIS, awareness and enrolment are key process indicators. Utilization could be conceptualized as an output or impact indicator, but in the current paper, it is a process indicator.

Awareness

Awareness of available health services and social health protection schemes is considered in health research as an important determinant of utilization of available services. Reviewed studies tried to assess the levels of awareness, sources of awareness and the determinants of awareness related to PFHIS mostly through primarily survey research though some studies used qualitative methods like focus group discussions (FGD), in-depth interviews and participant observations with the general population, subgroups or beneficiaries who utilized the schemes.

Awareness of PFHIS among men, irrespective of which aspect was being measured, was consistently found to be better than women. According to Yelliah (2012), when compared to men, awareness among women was low in Andhra Pradesh. Cerceau (2012) in a qualitative study found women to lack awareness of benefits and empanelled hospitals in Haryana. In Uttar Pradesh, women were less aware (37per cent) compared to men (44per cent) (Amicus Advisory, 2011). According to Thakur (2014), educational level, economic activity and political connectedness of households in Maharashtra were positively associated with awareness while being urban, Hindu, Scheduled Castes (SC) /Scheduled Tribes (ST), female, illiterate or households headed by female or were nuclear, were negatively associated. Nandi et al., (2016) also found that awareness of PFHIS was low among slum women in Chhattisgarh though the study did not measure men's awareness. Karpagam et al., (2016) through a qualitative study found that women in Karnataka lacked information on the scheme cards, and on where to get the information or lodge grievances. According to these studies, factors that were responsible for awareness or lack of it centred around absent or ineffective awareness campaigns by insurers and enrolment agencies. For example, written materials were distributed among an illiterate population, or the population was left to rely on unofficial sources of information (friends, neighbours, etc.).

Under most PFHIS models, awareness generation is the responsibility of the insurer. The findings indicate that awareness-raising strategies of the scheme have been poorly implemented (Amicus Advisory, 2011, Rathi et al., 2012, Thakur, 2014, & Ghosh, 2014) and the channels and materials used for information education communication campaigns (if any) may not have been gender-sensitive.

Poorer awareness on PFHIS among women can have serious implications on utilization, impede informed decision making and subsequently lead to poor or nil financial protection for themselves as individuals, as well as for other family members when women are primary caretakers. NFHS-3 data showed that 35per cent of women had no regular exposure to newspapers or television when compared to 18per cent of men (IIPS Macro, 2007 as in Jain, 2013). Thus, the scheme itself accentuated women's access barriers by failing to create awareness which in turn resulted in poor utilization for themselves and others. Other studies such as Das and Leiono (2011), Rajasekhar et al., (2011), Aiyar et al., (2010-11), Rathi et al., (2012), Rao et al., (2014), Ghosh (2014), Rana et al., (2015), Rent & Ghosh (2015), and Neena et al., (2016) pointed at poor awareness on PFHIS but do not provide any insights on gender differences.

Enrolment

Enrolment refers to the formal inclusion of households and its members in the PFHIS after being screened for eligibility. Enrolment is most often represented by possession of a smart card which entitles the household and its members for benefits under the scheme. Levels of enrolment were researched in many of the studies reviewed, using secondary data from the scheme as well as primary surveys. Findings related to enrolment tend to swing either way - sometimes in favour of female-headed households and other times indicating poorer enrolment for women.

Grover and Palacios (2011) analysed the determinants of enrolment and found that while age and education of head of household, and linkage with politicians and local authorities were significant, gender was not a significant determinant. With RSBY data showing higher male enrolments, Swarup (2011) and Krishnaswamy and Ruchismita (2011) reasoned that male enrolment might seem higher because BPL lists used for enrolment in PFHIS usually have males as head of households. Sun (2010) observed that if the sex of head of household and spouse was not considered, there were no differences in male and female enrolment.

Some studies identified a clear gendered risk in intra household exclusion based on gender, age and marital status due to the ceiling of maximum five members per household in schemes like RSBY. They pointed out the possibility of intra-household exclusion of women to resources guaranteed by social health protection mechanisms. Intra household exclusions in enrolment were found in RSBY by Sun (2010), Das and Leino (2011), Nandi, Nundy et al., (2012), Ghosh (2014) and Nair (2015). Some of these studies reported the specific vulnerability of women to be excluded from enrolment either due to design aspects of the scheme or requirements for documents (Sun, 2011, Cerceau, 2012, Jain, 2013, Rana et al., 2015, Raza et al., 2016 & Karpagam et al., 2016).

Nandi, et al., (2013) found a positive association between female-headed households and enrolment in RSBY. Ghosh (2014) in a study of 6000 households covered by RSBY in Maharashtra found that those with female-headed households, SC/ST, Muslim were more likely to be enrolled. Using RSBY scheme data, Jain (2014) observed that though low to start with, female enrolment increased with time. Nandi et al., (2016) found a slightly higher percentage of women (68per cent) enrolled than men (65per cent), though in the age groups 6-18 and above 45, men overtook women. Thus, examining the sex of the head of household provided inconsistent results. It is not clear whether the higher enrolment of female-headed households or females in general, is due to the better targeting in the scheme, or because of other factors like availability of women during enrolment camps and women being substituted for men as head of households for convenience (Sun, 2010). Overall, the

evidence is inconclusive on gender differences in enrolment except for the design-based exclusion of women.

Other studies which discuss enrolment used households as a unit of measurement and analyses (for example Narayana, 2010, Shoree et al., 2014) or did not provide sex-disaggregated data. In schemes like Rajiv Arogya Sri (RAS) or Rajiv Gandhi Jeevandhayee Arogya Yojna (RGJAY) or Chief Minister's Comprehensive Health Insurance Card Scheme (CMCHIS) all members of the household are automatically enrolled, and hence gender-disaggregated enrolment data was not available.

Utilization

Utilization refers to the use of PFHIS by an enrolled person for a particular surgical or medical treatment. Because PFHIS like RGJAY, CMCHIS, Vajpayee Arogyasri Scheme (VAS) and RAS provide exclusively for tertiary level care, the terms utilization and hospitalization became interchangeably used in studies on PFHIS. However, not all hospitalizations came with PFHIS coverage, and due caution was necessary during interpretation of results and findings. Studies gauged utilization levels mostly through scheme (claims) data, hospitalization data from National Sample Survey Organization (NSSO)⁵ and primary surveys. Unlike enrolment, utilization takes place at an individual level.

Utilization estimates mostly indicate a pro-male bias when assessed through claims data. Selvavinayagam and Vijayakumar (2012) in Tamil Nadu using scheme -claims -data reported a slightly higher percentage of utilization by males in the first year of the scheme (55per cent). Krishnaswamy and Ruchismita (2011) found hospitalization to be higher for males in the second year of RSBY reversing the trend of the earlier year. However, the claim amount was higher for women. Rao et al., (2012) analysed the claims data from the RAS (undivided Andhra Pradesh) scheme and found that 53.6per cent of the beneficiaries were men. Only 40per cent of beneficiaries of VAS in Karnataka were women (CBPS, 2015). Wagle and Shah (2017) found that only 40per cent of beneficiaries in the RGJAY claims were from females. Vijay (2012) found, based on a sample of 30,000 beneficiaries drawn from RAS data, that women and children under 15 were under-represented. Jain (2011) found a higher hospitalization rate for men under RSBY than women in Chhattisgarh. Rent and Ghosh (2015) reported that 59per cent of respondents who utilized RGJAY were males during an exit survey in Maharashtra. Gupt et al., (2016) in a cross-sectional study in Himachal Pradesh found more males than females were represented in the beneficiary group.

However, some studies showed that in certain age groups (Selvavinayagam & Vijayakumar, 2012) or during some stages of scheme cycles (Jain, 2014), utilization tilted in favour of women or female-headed households. For example, Grover & Palacios (2011) found more women than men being hospitalized under RSBY in Delhi. In Haryana, though fewer women were enrolled, utilization was more among women than men (Cerceau, 2012). Devadasan et al., (2013) found higher utilization among women, elderly and lower caste individuals in Gujarat. The reasons for higher utilization by females in these areas are not elucidated in the studies. Jain (2014) also observed an increase in female hospitalization in RSBY over the years at a national level. Katyal et al., (2015) found that utilization among female-headed households in Andhra Pradesh increased following the PFHIS. Ghosh (2014) using multivariate analyses of survey data in Maharashtra found that gender was

⁵ NSSO, however, combines PFHIS with other Government funded schemes like ESIS and CGHIS

not a factor influencing hospitalization rates under RSBY. Thus, there is no clear direction in the evidence on whether women are at a disadvantage or not when it comes to utilization of PFHIS. Other studies, however, did not apply equity metrics on hospitalization data to gender but income quintiles, geographic location, religion or caste with households as units of analysis.

Regarding specialties and commonly utilized procedures, a higher share of claims in Obstetrics and Gynaecology was noted indicating largely reproductive health related morbidities. Women's claims were also found in non-reproductive ailments such as burns, dermatology, cardiology, medical and surgical oncology reflecting utilization for cardiovascular diseases, cancers and even treatment for violence (Dudala et al., 2013, Wagle & Shah, 2017, CBPS, 2015).

However, the higher share of claims in Obstetrics and Gynaecology specialty across many schemes need to be interpreted cautiously. Most studies did not disaggregate the procedures under Obstetrics or General Surgery to understand if the schemes were used for reproductive ailments other than hysterectomy. Reports from Indian states of Bihar, Andhra Pradesh, Rajasthan, Chhattisgarh, Gujarat and Karnataka (Jain & Kataria, 2012, Human Right Law Network, 2013, Mamidi & Pulla, 2013, Xavier et al., 2017) showed that women were vulnerable to misinformation and fear tactics, resulting in provider-induced hysterectomies within insurance-based health systems. Caesarean deliveries were irrationally employed by private medical providers for profit motives (Varma, 2012, Neuman et al., 2014, Marathe & Mukadam, 2017). No benchmark is available for an acceptable prevalence of hysterectomies, and no standard treatment protocols are available to assess rationality and appropriateness of such procedures. In this context, it is difficult to interpret utilization figures as indicative of rational care or 'access' or as indicators of vulnerabilities of women who lack awareness and negotiation skills to be victims of moral hazard. Studies on whether and to what extent being enrolled in health insurance empower women with improved decision-making both within and outside the household, and with control over their treatment and facility choices are absent barring a few qualitative studies (discussed later).

Impact Indicators and Gender Equity

Since PFHIS were introduced in response to increasing financial burden for health expenditures, their impact is typically studied by looking at household health expenditures, specifically out of pocket health expenditures (OOPE) and in some cases Catastrophic Health Expenditures (CHE) whereby the expenditures exceed a threshold of overall household consumption in order to assess if they lead to impoverishments. The presence and extent of distress coping is another measure of the impact of PFHIS.

Mitchelle, Mahal, & Bossert (2011) in a large survey administered in rural Andhra Pradesh to close to 5000 women on health-seeking behaviour including reproductive illnesses found that households with scheme membership in RAS incurred higher expenditures than non-enrolled households. Rao et al., (2012) found that female-headed households did not receive coverage under PFHIS when compared to male-headed households in Andhra Pradesh and Maharashtra. Sabharwal et al., (2014) found that while 76.8per cent of male-headed households incurred OOPE as compared to 66.7per cent of female-headed households, this was not a statistically significant difference. They also found that among households that did not use a scheme card, a higher proportion of female-headed households depended on borrowing. Ravi and Bergkvist (2014) concluded that maternity care caused

catastrophic health expenditure for poor households without insurance, but the nature of expenditure and other details were not provided in their paper. Dhanaraj (2015) measured coping strategy at the household member level and found that female-headed households had a higher probability of facing welfare loss and were seen to cope by sending children to work due to health shocks than male-headed ones with an overall finding that PFHIS did not have a significant effect in reducing the loss. Nandi et al., (2016) surveyed hospitalized women in a Raipur slum and found that among women who utilized the PFHIS in Chhattisgarh, 96 per cent of the enrolled women experienced OOPE due to fees, medicines, and transportation which are meant to be covered under the scheme.

Available evidence from reviewed studies shows the vulnerabilities of female-headed households to OOPE irrespective of being enrolled in PFHIS. OOPE tends to occur for meeting expenses related to outpatient care, drugs, diagnostics (covered under the scheme) and indirect costs such as transportation (covered under the scheme), food and boarding, loss of wages and companion costs(not covered).

Qualitative studies were better-able to capture gendered aspects of OOPE, distress coping among women and the non-financial barriers faced by women. Narasimhan et al., (2014)'s case study approach showed how the exclusion of maternity care and mental illness in RAS, as well as fear, mistrust, and the perceived poor quality of public health facilities caused high OOPE for women. Karpagam et al., (2016) found poor awareness among women, denials by hospitals to accept the card, women's difficulties in dealing with paper work, preauthorization delays affecting women's access, and lack of childcare facilities during hospitalization to be some pathways that particularly affected women's utilization. They found that women who were elderly, single or had chronic problems faced additional barriers to timely care under the PFHIS.

Sex-disaggregated data on impact of PFHIS were not reported in studies by Fan, Karan and Mahal (2012), Selvaraj and Karan (2012), Shahrawat and Rao (2012), Devadasan et al., (2013), Ravi and Bergkvist (2014), Sood et al.,(2014), Sahoo and Madheswaran (2014), Rent and Ghosh (2015), Rana et al., (2015) and Gupt et al., (2016). The limitation of not looking at intra-household differences was acknowledged in the study by Fan, Mahal, and Karan (2012). Another study overcame this limit and took individual household members as units of analyses and brought out the differential impact on female-headed households (Dhanaraj, 2015). The lack of sex disaggregated data on health expenditures is thus not a matter of availability but of being aware and sensitive to gender issues.

Literature Review: Conclusion

The results of the review presented a mixed picture with no conclusive evidence on gender differences on the various aspects of PFHIS barring awareness viz. enrolment, utilization and financial risk protection. Female-headed households sometimes were seen to fare better in certain indicators like enrolment but poorer in terms of experiencing financial burdens due to health expenditures. Studies, however, did not look at vulnerabilities of women within male-headed households, a limitation that arose out of considering the household as the unit of measurement.

Conducting the systematic review in a conventional method was ridden with limitations of not being able to aggregate studies that differed widely based on research design, methods, and geography. Wherever the household was considered as the unit of measurement, subsequent analysis through disaggregation based on intra-household stratifies such as sex, marital status and age could not be

done. Overall, equity was assessed more along location (urban/rural), income/class and sometimes caste in the studies reviewed but rarely on gender. Few studies looked at user perspectives, reasons for no use, especially that of women and other qualitative elements like decision-making within the household. Not much is known from these studies about the relevance of the PFHIS across the different life stages of a woman - childhood, adolescence, middle age and old age. Thus, the reviewed studies were most often silent on gender differentials, and even when available, were not interpreted for possible implications on gender and health equity.

Critical Interpretive Review: Methods

The second stage of the review attempted to go from merely aggregating findings on gender and health equity to a qualitative inquiry, to exploring reasons for why we know so little about gender and health equity implications of Indian PFHIS in spite of compelling evidence on the health vulnerabilities of women. It has been over a decade since the first PFHIS was introduced in India, and yet the gender-based evidence remains sketchy. Sometimes they were ‘present’ in the data but not ‘picked up.’ The interpretive review employed a critical interpretive approach based on principles proposed by Dixon-Woods et al., (2006). Interpretive reviews involve induction and interpretation compared to aggregation and comparisons in conventional reviews. This paper, however, does not come up with a new theory as proposed by Dixon-Woods et al., (2006). The aim was to critically look at a large body of complex evidence on PFHIS containing both quantitative and qualitative studies (though so far interpretive reviews are confined to qualitative data only) from a gender perspective.

The same sets of studies were reviewed using a critical interpretive approach. In addition, Research questions no. 4 and 5 were addressed. Some additional categories were added to the proforma such as the use of the conceptual framework particularly gender analytical, and the representation of women as individuals or household members in the studies. Analysis of evidence was based on some recurring themes and identifying the assumptions and biases in the studies. Three such major assumptions or biases found to be underlying most of the studies on PFHIS are described next.

Critical Interpretive Review: Results

The unitary household model and gender neutrality

Though health shocks affect individual members, the burden of expenditures is supposed to affect the household budget. Hence health economics, in general, is concerned with household expenditures, household financing options and does not automatically look into intra-household allocations of resources. Decisions on medical expenditures and coping are ‘negotiated’ within the family but acknowledged to be rising from different bargaining positions (Russell, 2004).

Insurance policies define a household as consisting of the household head, spouse, and certain dependents. As commercial insurers underwrite PFHIS, the schemes adopt the same definition and maintain data and records with the household as the unit of analysis. Taking household as the unit of enrolment has the advantage of not leaving out any women, elderly or disabled, lest when the ceiling is capped at five members per household (Ravindran, 2012). However, research studies also uncritically applied the same model and factors like awareness or coping mechanisms measured in aggregate as ‘household awareness’ and ‘household coping’ (For example, Das & Leino 2011, Vaishnavi & Dash, 2009).

The household model thus leads to lack of disaggregated data at the scheme-level and when collecting large survey data (such as the NSSO). It also leads to uncritical primary research. Even though some studies capture gender differentials initially, they later succumb to aggregating their findings at the household level (for example Mitchell et al., 2011 and Mazumdar et al., 2016). Feminist economists criticize the household model as it reinforces the assumption of a male breadwinner and that all members of the family are equal and get to share the benefits provided equally (Macdonald, 1998). Farrington (2005) as in Holmes and Jones (2013) found that intra-household relationships did not allow insurance benefits to befall on women though they were involved in unpaid household work. Fan et al., (2012) acknowledged in their analysis of RAS that they did not look for the impact of insurance on intra-household allocation of resources, which household members used health services, whether they used public or private care or the level of provider used. Dhanaraj (2015) did successfully challenge the unitary household model, used household members as units of analyses, and found that the coping strategies were different when male and female members lost their lives in a household.

Some studies that exclusively used women as participants of the survey reverted to discussing findings in terms of the “household.” Others lacked comparative data for male counterparts (Mitchell et al., 2011, Karpagam et al., 2016 & Nandi et al., 2016). Many findings did not capture sex-specific differences yet indicated intensified vulnerabilities of women because of intersectionality with a social group, location, age or disability status. For example, when the distance between empanelled facility and villages are discussed as a determinant, it becomes evident that women who lack mobility would be worst affected (as in Sun, 2010). Or as in Grover and Palacios (2011) who found political connectedness as key to enrolment, women may be assumed to be automatically disadvantaged. Gender is implied when PFHIS design excludes costs for outpatient care, attendant costs, and child care. When primary and public care services were undermined by PFHIS, women were likely to be the worst hit, as poor and marginalized women were most dependent on them. However, such interlinkages with gender issues were missing from the discussion of such findings.

The consistent application of the household model appears to be oblivious to an already established pool of research studies proving the vulnerability of women within the household in terms of access and control over household resources, and the unequal burden that befalls them when a health shock strikes any member including themselves (UN Millennium project, 2005, Asfaw et al., 2008, Gosoni et al., 2008, Desai et al., 2010, Xu et al., 2009 & Rout, 2010). Unfortunately, there is little evidence emerging from the PFHIS studies on gender differences in health expenditures as well as in the extent of financial risk protection.

A closely related factor to the unitary household model is the assumption that social health protection policies that cover the entire household are gender-neutral and hence unbiased. Gender-neutral policies are those that routinely use generic, non-gendered categories and do not challenge the existing divisions of roles, resources, and responsibilities between men and women (Kabeer and Subrahmanian 1999). Cerceau (2012) reports key policy makers of RSBY claiming that RSBY is a ‘gender-neutral’ policy as it provided coverage for the entire household. While gender neutrality at the level of enrolment in PFHIS is to be welcomed, it cannot be assumed that this alone would translate to neutrality at all other levels of scheme implementation.

Gender Biases in Frameworks and Methodologies

Another reason for the absence of discussion on gender equity found in this review could lie in the frameworks and methodologies used in the studies (See Table 2). Some studies used the WHO's UHC cube framework of 1) Breadth denoting the population covered, (2) Depth denoting the services covered and (3) Height denoting the direct costs of health and what proportion of costs are covered (Reddy et. al., 2011, Shoree et. al., 2014 & Seshadri et. al., 2012). Some studies using the social exclusion or access framework gave better insights on vulnerabilities of women in the different process indicators which in turn affect the impact indicators (Sabharwal et al., 2014 & Thakur, 2014 use social exclusion while Aiyar et al., 2013 use Tanashi's Access framework).

No framework is inherently gender biased. However, compared to location and income, the review found that gender was assigned a lower priority in equity analyses. Only a few studies used specifically a gender analytical framework (Cerceau, 2012, Jain, 2013, Gothoskar, 2014, Karpagam et al., 2016 & Nandi et al., 2016). Some of these studies (except Nandi et al., 2016) were based on secondary data or a limited sample. However, they were able to highlight the mismatch between women's morbidities (specific to their paid and unpaid work) and procedures covered in PFHIS, access barriers at the time of enrolment and hospitalization, delays in seeking treatment, gender blindness in design, gender insensitivities in scheme implementation and lack of respite from catastrophic health expenditures. Studies employing a social exclusion framework were also able to highlight some important gender issues. Ravindran (2012) applied a gender analyses framework to different social protection schemes across countries and observed that 'universal health coverage' could only to some extent result in 'universal access' for women.

Table 2: Frameworks Used in Studies on PFHIS India

| Frameworks used | |
|---------------------------------|--|
| Gender lens/ Analytical | Ravindran 2012, Cerceau 2012, Jain 2013, Gothoskar 2014, Karpagam et al. 2016, Nandi et. al.2016 |
| Access to health | Aiyar et al. 2013, Jain 2013, Narasimhan et al. 2015 |
| Social Health Protection | Vijay 2012, Jain 2013, Gothoskar 2014, |
| Social Exclusion | Sabharwal et al. 2014, Thakur 2014 |
| WHO's UHC Cube | Reddy et al. 2011, La Forgia & Nagpal 2012, Shoree et al. 2014, Seshadri et al. 2012 |

The dominant method of calculating OOPE and CHE was the econometric method followed by Wagstaff and van Doorslaer (2003). WHO defined catastrophic OOPE as health expenditure that exceeds some fixed proportion of total household expenditure. This threshold level is set arbitrarily, say 10per cent irrespective of the level of income and irrespective if the household is rich or poor (Shahrawat & Rao, 2012). These methods are not without criticism (See, for example, Gupta, 2009 & Russell, 2004). One such criticism is that because households can cope with healthcare costs through borrowing, or sale of assets (Flores et al., 2008 as in Joe, 2015) their non-food consumption may not reflect any change thus shifting them to the non-catastrophic category. The traditional calculation of OOPE and CHE can be considered arbitrary and also gender- biased. In large surveys like NSSO, only transportation costs were included as indirect costs. Ghosh (2014) found that when OOPE for indirect expenditures like attendant costs is included, the proportion of households incurring financial catastrophe increased. Calculations of direct and indirect costs in studies on PFHIS also

reflect a gender bias where biological and social reproductive roles performed by women within the home are unaccounted for. For example, in a study on wage-days-lost for persons living with AIDS in Tanzania, it was found that women's loss was much higher than that by men (Russell, 2004). In the wake of health shocks, women's assets, especially jewels, were more likely to be depleted to cope with them (Quisumbing et al., 2011 as in Holmes & Jones, 2013) yet the reviewed studies focused on 'household' and not sex-disaggregated coping strategies.

The overemphasis on quantitative approaches across PFHIS studies additionally renders many of women's experiences with access to healthcare using PFHIS, invisible. For ex, Narasimhan et al., 2014 and Karpagam et al., 2016 using a qualitative approach were able to bring out different gendered barriers faced by women. Gender, thus missed many opportunities to come to the forefront of equity discussions in the PFHIS studies.

Balancing women's vertical and horizontal health needs

While on the one hand gender neutrality can work against gender equity, on the other hand focusing narrowly on women's needs surrounding their reproductive roles could also adversely affect gender equity. The literature search on gender and social health protection turned up several studies on maternity and safe delivery. The financial burden caused by vertical or sex-specific health needs of women no doubt requires priority, but these are not limited to pregnancy and childbirth alone. Financial and other barriers operate in determining women's access to a range of sexual and reproductive conditions including maternity, childbirth, contraception, abortion, menstrual/gynaecological problems, reproductive tract illnesses and sexually transmitted diseases. The availability and acceptability of such sexual and reproductive health services in public health systems are limited, forcing women to either forego care or seek private services and face financial burden (Balasubramanian & Ravindran, 2011, Mohanty & Srivatsava 2013). It must also be remembered that women in Above Poverty Line households may be in the same or even position in their access to household financial resources when compared to women in BPL households (Witter et al., 2017).

Many of the PFHIS, such as that of Andhra Pradesh/Telangana, Tamil Nadu, and Maharashtra, do not cover maternity and childbirth, based on insurance principles that these are not non-random health events. Other forms of social protection such as cash transfers may be available to meet expenditures for maternity/childbirth but with questionable equity impact (Balasubramanian & Ravindran, 2012). Studies on PFHIS found that exclusion of maternity and childbirth was a serious lacuna (Ravindran, 2012, Ravi & Bergkvist, 2014). Gothoskar (2014) raised the concern how deliveries were included when RSBY was implemented in Maharashtra but was later withdrawn when it was replaced by RGJAY. Similarly, hysterectomy was included in the PFHIS of Tamil Nadu when introduced, then withdrawn and then reintroduced (La Forgia & Nagpal, 2012 p. 324). The rationale and circumstances under which these policy decisions were taken are not adequately captured in any study. Many of the PFHIS did not provide for access for gynaecological morbidities at early stages but provided for removal of uterus once the untreated morbidities increased in severity. As seen earlier, unnecessary caesarean deliveries and hysterectomies show how women are vulnerable to provider-induced moral hazards masquerading as 'utilization' and 'access' while jeopardizing women's health.

Women's health risks extend beyond their reproductive roles. There is little recognition of the horizontal needs of women such as vulnerabilities due to infectious, chronic and non-communicable diseases that can disproportionately affect women because of their increasing life spans much of

which is spent as single or dependent. The Global Burden of Disease Report states that diarrhoeal diseases, iron deficiency anaemia, lower respiratory infections were higher among females (ICMR, PHFI & IHME, 2017). Women are also vulnerable to cardiovascular diseases, different types of violence, mental ill health and substance abuse (Holmes & Jones, 2013).

As seen earlier, PFHIS are able only to address a narrow set of illnesses that women suffer from, especially after it escalates into a serious or life-threatening condition such as cancers and removal of the uterus. Both cases are avoidable if adequate prevention and screening were also incorporated into policy design such as in Thailand and Mexico's universal health insurance schemes. The high utilization of certain procedures at certain ages also raises concerns, given the risk of moral hazard. For example, in a study on utilization patterns from the CMCHIS in Tamil Nadu, a consistently higher number of claims were observed by men in every age-group except for 41-50 where women overtake (Selvavinayagam & Vijayakumar, 2012, a pattern also seen in VAS in Karnataka (CBPS, 2015)). The reasons for this pattern were not discussed in detail in the paper as disaggregation of procedures performed on women of those ages were not given. In the same scheme, a higher share by males in total claim costs and average claim size was attributed to sex differences in health risks ('cardiac diseases more common among males than females in 41-60 age group') in another paper (La Forgia & Nagpal, 2012, p.328). It is not clear whether this pro-male difference in claims is due to purely sex-differences or also reflect gender and social barriers for women. In fact, the perception of heart diseases as a man's disease was found to cause delays in diagnosis of cardiac distress among women (Doyal et al, 2003.) Claims analyses by CBPS (2015) in Karnataka and Wagle and Shah (2017) in Maharashtra show that women's share is higher in burns which actually could be the result of violence inflicted on women.

Thus, PFHIS incorporates a narrow understanding of women's specific sexual and reproductive health needs as well as general health needs and are ridden with more exclusions than inclusions of conditions known to cause financial burdens for access for women. Disturbingly, the included procedures were seen to be over-prescribed at the cost of women's health.

Conclusions

Women constitute a majority of the world's poor, the informal and unorganized economy. Women have some specific health needs due to their biological roles, intensified needs that manifest differently in women as compared to men and have imposed vulnerabilities and risks arising from their social positions. A health insurance scheme aimed to improve healthcare access by removing the financial constraints needs to take into account the multiple levels of marginalization faced by women compared to men. The paper aimed to look at the extent to which PFHIS in India address the differential needs of women in a way that overcomes existing barriers to ensure gender and health equity. By combining two approaches, one deductive and another inductive - to review existing studies on PFHIS, the paper has brought out three key issues:

- (a) There are gaps in the approach and methodology of the evaluation studies in analysing gender inequities. The uncritical application of household as the unit of measurement and analysis in the studies rendered much of the gender differences invisible and reinforced the myth of the household as a non-discriminatory unit and the PFHIS health policy as a gender-neutral one. Unless power inequalities between men and women within the household and in health system settings are taken into account, a purely economic analysis of the scheme will yield

misleading results and findings. The review proved that health research influenced by deep-seated gender bias creates a vicious cycle combined with lack of well-articulated evidence (Sen et al., 2002). Research approaches need to go beyond health economics to incorporate interdisciplinary approach including psychological, social, anthropological and qualitative approaches that are best suited to unravel some unexplored dimensions such as decision-making, user perspectives, quality of care and non-financial barriers to accessing health under PFHIS.

- (b) Current evidence on gender issues calls for improving programme design and implementation of PFHIS in India. The review found that women were disadvantaged in being aware of, included in and impacted by PFHIS. The findings strongly underline the need for PFHIS to improve awareness raising strategies and relook at the design elements that tend to exclude women and conditions that cause financial burden, to ensure benefits of financial risk protection reaches individual women irrespective of their marital or social profile. The different kinds of ‘costs’ associated with a woman’s hospitalization and treatment need to be acknowledged and covered under the scheme.
- (c) There is a need to put in place a comprehensive monitoring framework for publicly financed programmes, for tracking gender-specific indicators. So far there is insufficient attention to gender issues in routine evaluations of PFHIS, especially for gender inequity indicators. The study shows that this has to go beyond sex-disaggregated data to a comprehensive application of gender lens in scheme design, processes and impact along with health service organization and delivery. Gender analysis of not only PFHIS but health financing strategies and UHC frameworks are also urgently needed.

This paper unmasked India’s PFHIS policy, which maintains a gender-neutral language providing a seemingly “gender-equal” form of social protection to the marginalized populations. The findings assume greater significance in the context of the announcement of the Government of India of the National Health Protection Scheme during the budget session in February 2018. The plans to expand the population as well as monetary coverage without relooking into gender and health equity implications is likely to only usher more hurdles for women and the marginalized. As publicly funded health insurance is a complex subject involving multiple stakeholders and the current political economy allows profit-oriented and market-based institutions to influence policy decisions, no time should be wasted in bringing explicit and committed attention to gender equity.

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