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What stops private hospitals from engaging with publicly funded health insurance schemes? A mixed-methods study on PMJAY/MJPJAY in Maharashtra, India

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Abstract

Background Reducing patient expenditure and expanding healthcare access through private sector hospitals is widely touted strategy for governments to achieve Universal Health Care, including in India. However, private sector engagement in India's publicly funded health insurance schemes (PFHIS) remains low and is uneven across geographies and by hospitals size. This paper examines challenges to achieving effective private sector engagement in PFHIS by analysing private sector participation and exploring diverse stakeholder perspectives.

Methods This case study used sequential mixed methods design and was conducted in 2023-24 in Maharashtra, India. We combined quantitative analysis of the geographic distribution of empanelled private hospitals (993 across Maharashtra's 36 districts) and qualitative interviews ($n=16$) with diverse stakeholders to understand why some facilities do not engage. The analysis was guided by our framework on private sector engagement that examined policy factors, hospital level factors and operational factors.

Results Only 13% of private hospitals were empanelled in Maharashtra's PFHIS, with higher empanelment in urban areas and among small and medium sized hospitals; rural areas had few empanelled hospitals and few large private hospitals participated. Districts with few empanelled private hospitals had lower overall hospitalization rates, suggesting persistent unmet population need for affordable hospitals. Low private sector engagement was driven by multiple factors: at the policy level, insufficient state budgets, low reimbursement rates, fixed scheme packages, strict empanelment criteria, complex claims processes, and delayed reimbursements; at the hospital level, economic non-viability, concerns about patient load and profile, and limited administrative capacities; and at the operational level, inadequate monitoring mechanisms for PFHIS and empanelled hospitals, gaps in the empanelment process, and delays in patient pre-authorization and claims processing.

Conclusion This study enhances understanding of private sector engagement challenges and provides insights for improving PFHIS and UHC in India. The framework developed can also be applied beyond India to assess the complexities of intent, capacity, and interactions between private and public actors in PFHIS. To create an

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enabling environment for private sector engagement and achieve the scheme's objectives, the state could increase reimbursement rates, implement responsive grievance redressal, regulate private hospitals, and improve governance processes. A two-fold strategy of strengthening the public health system and engaging with regulated private hospitals could enhance the scheme's effectiveness.

Keywords Private health sector, Publicly funded health insurance schemes, PMJAY, MJPJAY, Empanelment, Inequitable access

Introduction

Achieving the Sustainable Development Goal target 3.8 of Universal Health Coverage (UHC) by 2030 requires strategic involvement of the private healthcare sector [1, 2]. A resolution to engage the private sector in providing essential health services was adopted in the Sixty-third World Health Assembly in 2010, calling for "Strengthening the capacity of governments to constructively engage the private sector in providing essential health-care services" [3]. This resolution recognizes the large role of private healthcare providers and acknowledges the range of issues involved in engaging with the private healthcare sector, for which documentation and evidence are weak. Policy documents also reinforce the need for a strategy [4, 5], and a policy that is inclusive of the different parts of the private sector (private for-profit hospital care, private non-profit care, private diagnostic laboratories, private provision of Indigenous medicine, etc.) to maximize the achievement of UHC [6].

With the prominence of the private sector in many countries [7], including India, public-private engagement has gained acceptance as an essential element in attaining UHC. India has one of the most privatised health systems in the world with private expenditure accounting for 63% of the country's total health expenditure [8]. The private sector provides 80% of outpatient care and up to 60% of inpatient care [9, 10]. Additionally, 60% of hospital beds and 70% of healthcare workers, including 80% of physicians, are in the private sector [9, 10], highlighting the weak state of public health infrastructure and the concentration of resources in the private sector.

Given this situation, key Indian policy documents have recommended strategic collaboration with private hospitals for developing UHC systems [11–13]. India is gradually moving towards a private sector-dependent universal health insurance model for achieving UHC [11]. Over the years, several Publicly Funded Health Insurance Schemes (PFHISs), which require private-sector engagement, have been initiated and expanded throughout the country. Ayushman Bharat– Pradhan Mantri Jan Aarogya Yojana (PMJAY), launched in 2018, is the most recent and largest PFHIS initiative, intending to provide coverage for secondary and tertiary hospitalization to about 10 crore (100 million) households below the Indian poverty line. Hospitals must first be empanelled into the PMJAY system, and can then bill the scheme for care provided to patients who are eligible for PMJAY. Nearly all the secondary and tertiary public hospitals are also empanelled, as doing so offers them another revenue option to supplement their operating budgets and income from user fees.

While the role of the private healthcare sector is considered critical in PFHIS, their participation in the ongoing state-run insurance schemes in India is patchy with uneven participation across geographical locations and by hospital size. While there are an estimated 43,487 private hospitals in India [14], only 20% i.e. fewer than 9000 private hospitals were empanelled in PMJAY [15].

Low private sector participation in PFHISs can be attributed to two main challenges. First, private hospitals tend to be concentrated in urban and wealthier areas; there are few private hospitals in rural and poorer regions to empanel [15, 16]. Second, among existing private hospitals, many are not empanelled either because they are not eligible or, despite being eligible, they choose not to engage in the scheme. A significant proportion of private hospitals lack the requisite staffing and infrastructure to meet PFHIS's stringent empanelment criteria. Among eligible private hospitals, low package rates, unpaid or rejected claims, and delayed reimbursement have been identified as major reasons for the non-engagement [17–20]. However, it remains unclear why some hospitals join while other eligible hospitals with similar profiles do not.

We sought to explore the number, geographic distribution, and type of empanelled private hospitals, and the challenges facing private sector engagement in India's PFHIS in Maharashtra state. Maharashtra is located on India's western coast and has a population of 132 million. The state is composed of 36 districts. As the site of the economic powerhouse city Mumbai as well as robust farming, fishing and manufacturing industries, one of the wealthier states in the country, with a gross domestic product of ₹332,692 (US$4,000) per capita [21].

PFHIS in the Indian state of Maharashtra

The proportion of private hospitals in Maharashtra has increased from 68% in 1981 to 83% in 2005 [22]. The state currently ranks third in India in the number of private hospital beds, constituting two-thirds of the state's total hospital capacity. Maharashtra is also among states with highest proportion of private hospitals participating in the PMJAY scheme [15].

The PFHIS situation in Maharashtra is unique because two major schemes are being implemented, one from the central government (PMJAY) with a maximum yearly coverage of Rs. 500,000 (USD $ 5903) per family for 1921 procedures and one from the state government called Mahatma Phule Jan Arogya Yojana (MJPJAY) with a maximum yearly coverage of 150,000 (USD $1770) per family for 971 procedures, introduced in July 2012. There are 992 empanelled hospitals in the state and the Maharashtra State Health Assurance Society is the nodal agency responsible for integrated implementation of both these schemes [23, 24].

A 2014 study on the distribution of empanelled private hospitals in Maharashtra found that about 44% of the total empanelled hospitals in the state were concentrated in six urban centres, where only 30% of the population lives [16]. Interestingly, in Mumbai, a hub for medical care, private hospitals' empanelment was lowest compared to other regions. The number of empanelled hospitals was found to be lower in districts with a significant tribal population. For example, Nandurbar district is 65% tribal and had only one empanelled hospital, which was a public hospital; no private hospital empanelled [16]. Such sparse distribution of empanelled hospitals in rural areas leaves people with difficult choices: forego necessary health care, travel long distances to get the treatment from large public hospitals, or pay prohibitively high rates at private, non-empanelled hospitals.

This paper takes a two-pronged approach, first it provides an updated analysis, from 2014 to 2023, of private hospitals' engagement in PFHIS in Maharashtra, exploring the extent and geographic distribution pattern across and within specific districts. It then qualitatively explores diverse perspectives of stakeholders to unpack engagement challenges faced by the private sector towards PFHIS.

Methodology

We conducted a case study using a sequential mixed method design which allowed us to first understand the distribution pattern of private hospitals empanelment in PFHIS and then qualitatively explain engagement challenges. Our mixed-methods design [25] began with quantitative analysis to understand the number, location, and types of hospitals participating in MJPJAY and PMJAY in Maharashtra, and a second phase of qualitative key informant interviews to understand reasons for the situation. This explanatory sequential design placed a relatively equal overall weight on the quantitative and qualitative data while recognizing that they served distinct purposes: the quantitative data was essential for describing the situation and the qualitative data for explaining the situation. We used the quantitative data analysis to shape our qualitative research, thereby connecting the two methods.

Data collection

For district-wise mapping of empanelled hospitals in Maharashtra's PFHISs, we gathered secondary data as of October 2023 from MJPJAY and PMJAY websites. Information included lists of empanelled hospitals for all districts, hospital types, bed strengths, specialties, addresses, and beneficiary counts per district. A database was prepared in Microsoft Excel, incorporating these variables. District-wise patient admissions from scheme website and 2022 population estimates, derived from the most recent Indian census, were also obtained.

In two case study districts, Nandurbar and Pune, an in-depth analysis focused on the geographic distribution of empanelled hospitals, services, and their composition was performed. These districts were chosen based on criteria of number of empanelled hospitals. Nandurbar (poor, hilly, mostly rural and has a high tribal population) with a low number of empanelled hospitals and Pune (wealthier, urban, mixed population) with a high number of empanelled hospitals. Data on the number of private hospitals in both districts were also collected. Nandurbar district has a population of 18,32,080 and is composed of six administrative blocks. Pune district has a population of 1,04,80,787 and is composed of 14 administrative blocks.

For qualitative component, we conducted 16 stakeholder interviews with three categories of respondents: (1) Private hospital providers ($n=7$) from different types of private hospitals (ranging from 10 to 200 bedded single to multispecialty hospitals) including both empanelled and non-empanelled hospitals; (2) Government officials at the state level ($n=3$) and district level ($n=4$), including state officials and *arogya mitra* (health guide/friend) from the PFHIS department, and (3) Community representatives, including health activists and patients' groups ($n=2$). Respondents were selected using purposive and snowball sampling. Diverse stakeholder views were considered to cover different perspectives and also ensure the robustness and validity of our qualitative data. Interview guides (attached) were tailored to each respondent but generally covered: private hospitals' perspective on reasons, constraints and reservations for non-empanelment and Maharashtra state's perspective on dependency and challenges with private hospital empanelment. The recruitment period for the stakeholder interviews of the study was from October 2023 to January 2024. Informed consent was taken from all the respondents in this research study prior to interviews. Most respondents provided written consent while five respondents provided verbal, audio-recorded consent for taking part in the study, with approval from the ethics committee. The

interviews ranged from 16 min to 1.27 h in length, with an average of 24 min. Audio-recorded interviews were transcribed verbatim.

Data analysis

Quantitative data analysis using MS excel, involved first presenting basic descriptive data on number of empanelled hospitals in each district in Maharashtra, then calculating the percentage distribution between public and private, as well as between public, private for profit and private not for profit hospitals, and finally calculating the percentage of private hospitals that were empanelled, out of all private hospitals. For Nandurbar and Pune, we also calculated the distribution of empanelled hospitals by blocks (sub-district administrative divisions).

The qualitative data were analysed thematically [26]. We developed codes and categories inductively and deductively. An initial framework on understanding engagement challenges of private hospitals in PFHIS was expanded based on study findings. We present our findings according to this expanded framework (Fig. 1). We begin on the right, to first describe private hospital engagement in MJPJAY/PMJAY in terms of number, location and size of empanelled private hospitals in Maharashtra. We then seek to explain the private hospital engagement patterns identified by discussing the role of policy factors, hospital level factors and operational factors.

Findings

Private hospital engagement in MJPJAY/PMJAY in Maharashtra

Number and location of hospitals empanelled

Out of the 992 hospitals empanelled in PMJAY/MJPJAY in Maharashtra as of October 2023, 796 (79%) were private-for-profit, 196 (19%) were public, and 16 (2%) were private not-for-profit. However, given that there are approximately 6000 private hospitals in the state [22], only 13% are currently part of the scheme.

The geographic distribution of empanelled hospitals across all districts showed that out of 36 districts in the state, half of the empanelled hospitals were concentrated in nine districts and one third were concentrated in five districts, which have high level of urbanisation: Mumbai, Pune, Nasik, Thane and Kolhapur. Conversely, there were 12 districts with less than 15 hospitals empanelled in the scheme, most of which are least urbanized districts with significant tribal populations. District wise data on density of empanelled hospitals also signifies inequitable distribution of empanelled hospitals across districts (Fig. 2). In 25 out of total 36 districts, the density is below the state average of one per 100,000 eligible population. Maharashtra's density of one empanelled hospital per 100,000 is also far lower than the national average of three empanelled hospitals per 100,000 population [15].

As expected, districts with fewer empanelled hospitals (less than 12 hospitals) had fewer patient admissions (average 1–2 per 1000 population) while those with more hospitals (40–78) had more admissions (8 per 1000 population; see Fig. 3).

In the two case-study districts, Nandurbar and Pune, we see low overall engagement of private hospitals in PMJAY/MJPJAY as well as striking inequality between

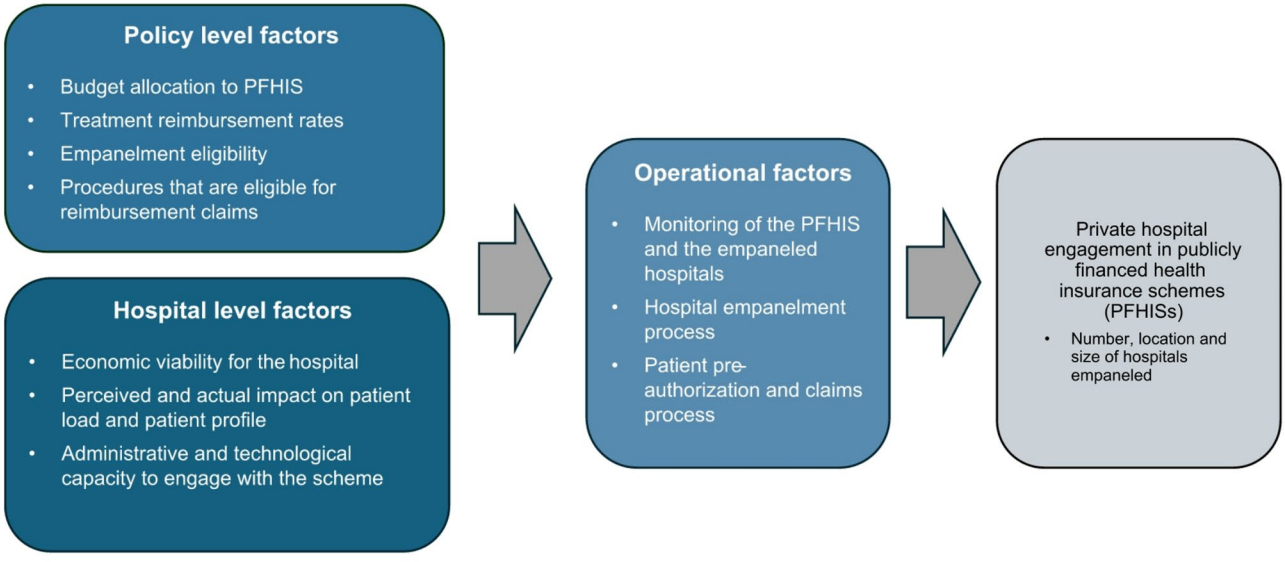

Fig. 1 Framework on understanding engagement challenges of private hospitals in PFHIS

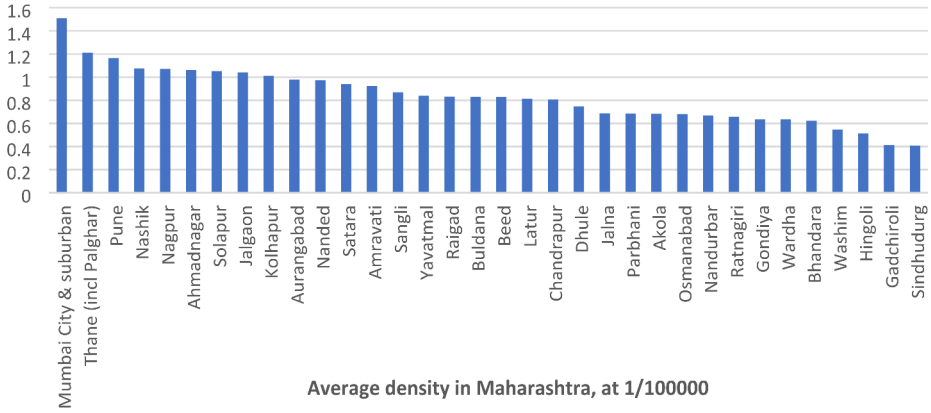

Fig. 2 Empanelled hospitals per 100,000 population, by district (Maharashtra, 2023)

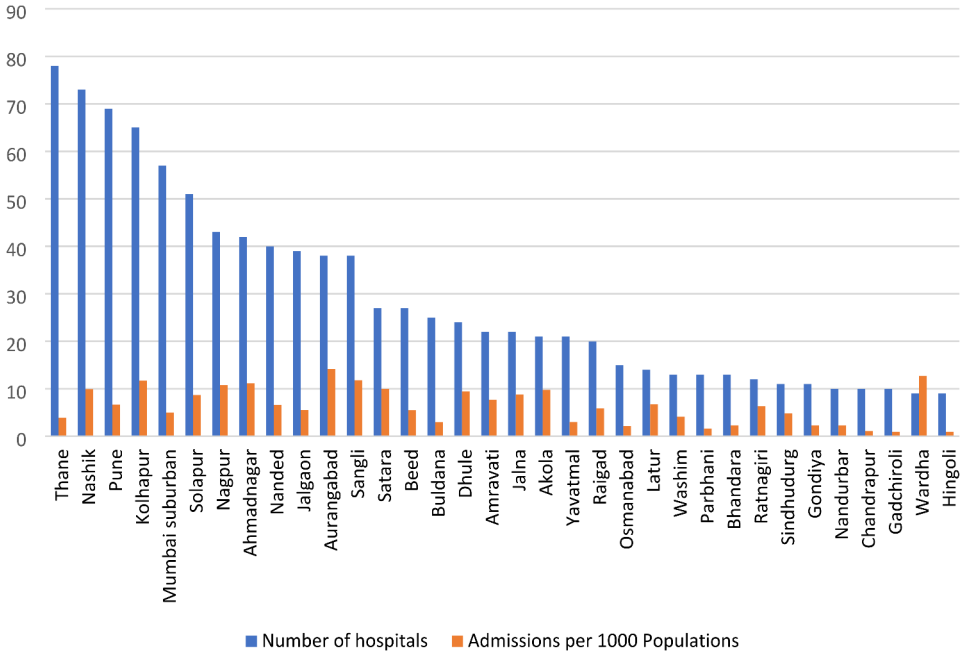

Fig. 3 Number of patients admitted to empanelled hospitals, per 1000 population, by district (Maharashtra, 2023)

blocks in these districts (Table 1). Only 7 of 50 (14%) private hospitals in Nandurbar were empanelled and only 58 of 1048 (5%) in Pune. The scheme aimed to have at least two hospitals empanelled in PMJAY/MJPJAY per block. Yet, in Nandurbar with a total of six blocks, six hospitals were concentrated in one block, the remaining four hospitals were spread across three blocks, and two blocks had no empanelled hospitals. In Pune with a total of 14 blocks, 89% empanelled hospitals were concentration in Pune city area and three blocks had no empanelled hospitals.

Size of empanelled private hospitals

In order to provide access to advanced treatment for a wide variety of medical issues, PMJAY/MJPJAY sought to empanel large (500 + bed) super-speciality private hospitals. Smaller hospitals were also eligible for empanelment to increase access to affordable healthcare in towns and rural areas without any super-speciality hospitals. Since 2022, the government also allowed single specialty private hospitals with up to 10 beds to be empanelled in highly marginalized districts (tribal or under-developed districts which are also called as "aspirational" districts). While PMJAY/MJPJAY has empanelled many smaller hospitals, the insurance program has failed to attract many large private hospitals; most (88%) of the

Table 1 Analysis of scheme empanelled hospitals from Nandurbar and Pune as of 2023

Parameters	Nandurbar	Pune
Total number of public hospitals	3	11
Total number of private hospitals	50	1048
Total number of empanelled hospitals (public plus private)	10	69
a. Public hospitals	3	11
b. Total number of empanelled private hospitals out of total private hospitals	7	58
Total bed capacity of hospitals under the scheme (beds per 1000 population)	470 (0.25 beds per 1000 population)	9650 (0.9 beds per 1000 population)
Empanelled hospitals in city/block areas	10	52
Empanelled hospitals in village/peripheral areas	0	7
Number of blocks with absence of empanelled hospitals out of total blocks in the district	2/6	3/14
Admissions per 1000 population	2	7

Table 2 Size of hospitals empanelled in PMJAY/MJPJAY in Maharashtra

Beds size	Private hospitals	Public hospitals	Total (%)
Up to 30	268	31	299 (30%)
30–50 beds	295	38	333 (34%)
50–100	130	50	180 (18%)
100–500	82	53	135 (14%)
500–1000	18	14	32 (3%)
More than 1000	3	10	13 (1%)
Total	796	196	992

empanelled hospitals had 100 beds or fewer and only about 4% had 500 or more beds (Table 2).

We now turn to factors at the policy, hospital, and operational levels to explain these findings: low overall enrolment among private hospitals, limited engagement by large private hospitals, and geographic concentration in a limited number of districts and in wealthier, urban areas.

Policy factors affecting private sector engagement with PMJAY/MJPJAY

Budget allocation to PFHI

The state's budget for PFHIS plays a foundational role in determining the number of hospitals empanelled in the scheme. Initially, the criterion was population-based but later shifted to ensure geographic access by having at least two hospitals per block. The scheme expanded over phases, reaching a cap of 1000 hospitals, with the premium rising from Rs 333 (USD $4.00) in phase I (2014–2015) to Rs 1055 (USD $12.60) per family in phase III (April 2020). This cost includes expenses to a Third-Party Administrator for claim amounts, administrative costs, and salaries of *Aarogya Mitras*, who are expected to be placed in each empanelled hospital. Based on this budget, the Memorandum of Understanding with the Third-Party Administrator sets a current upper limit at 1000 hospitals, indicating no further empanelment until the government allocates additional funds to the scheme and raises the cap. With 992 empanelled hospitals, Maharashtra is near the limit, which may deter some new hospitals from applying to join.

Treatment reimbursement rates

Low treatment reimbursement rates were the most frequently mentioned reason for private hospitals' reluctance to join the scheme. Respondents, including PMJAY/MJPJAY officials, acknowledge the need for rate increases as the current rates, set in 2012, have remained unchanged for over a decade. Apart from cardiology and urology, package rates for other treatments were considered low, and the variation based on geographical location exacerbated the challenge. For example, the package rates in type A cities (alike tier I cities– a classification based on population and development status) were reimbursed at 100%, for type B cities (tier II) 90% and for type C cities (tier III) at 80%. The comprehensive package, covering everything from hospital stay to food, further makes it non-viable for hospitals. Private sector hospitals thus prefer patients paying out of pocked or covered by private insurance rather than those under the scheme. Multiple respondents talked about the difference in reimbursement rates for certain procedures by private insurance and government schemes. For example, one respondent elaborated that,

> *For example, for the procedure of umbilical hernia with mesh, insurance companies pay around INR 70,000 (USD $829) to INR 80,000 (USD $955), while the scheme offers only INR 25000 (USD $299) making it financially unviable for hospitals considering additional costs such as mesh, surgeon fees, and administrative expenses. (Respondent 03, District level Co-ordinator)*

Empanelment eligibility

Eligibility criteria for empanelment of hospitals in PFHIS play a crucial role in ensuring the selection of healthcare providers capable of delivering high-quality and reliable services to beneficiaries. The eligibility criteria for hospital empanelment was developed by the state, based on national accreditation standards, focussing on human resource quality, facilities management, infection control, medication monitoring, and medical records maintenance. These criteria evolved over time to address emerging challenges.

We explored the low number of empanelled hospitals in rural areas (i.e., 0 of 10 empanelled hospitals in Nandurbar and only 7 of 52 in Pune). Respondents explained that, although empanelment criteria had been relaxed over time, small private hospitals in rural areas continued to struggle to meet the remaining empanelment criteria. Many rural hospitals could not pass the licensing accreditation criteria as they did not have the required number of staff, resources, or equipment. It was impractical for hospitals in rural areas or small towns to maintain round-the-clock qualified medical and paramedical staff. In addition, rural hospitals could not attract key personnel, such as registered nurses, data entry operators, and lab technicians.

> *In the small private hospital in rural areas, it is difficult to get qualified registered nurses. (Respondent 6, Private hospital owner)*

In many such hospitals, essential facilities such as sonography, X-ray, ECG, physiotherapy, round-the-clock blood banks, and fully equipped operating theatre are absent. Many hospitals also lack essential certifications, such as the Mother-to-Child HIV Transmission certificate.

Small hospitals (30–40 bedded), especially in rural areas, also struggled to meet infrastructural requirements, including firefighting systems and sewage treatment plants. Hospitals lacked the capital, space, and trained personnel to set up and operate these systems, and were thus ineligible for empanelment.

Procedures eligible for reimbursement claims

Private provider respondents highlighted fixed packages as a major limitation in the scheme design, affecting treatment paths, hospital finances, and patient outcomes and reported it as the impeding factor to private hospitals' participation in the scheme. Respondents emphasized the clinical variability in patient treatments due to age, co-morbidities, and health conditions, making fixed treatment packages impractical. Respondents underscored that despite the seemingly comprehensive list of 996 procedures in the scheme, practical application was challenging.

> *For example, scheme includes a package on febrile caesarean with ventilation so febrile c-section without ventilator do not fit into it. Hospitals face difficulty accommodating treatments that fall outside these predefined packages. (Respondent 5, private hospital owner)*

Hospital level factors affecting private sector engagement with PMJAY/MJPJAY

Economic viability for the hospital

Respondents discussed drivers of low enrolment among the large hospitals in the state (where the quantitative analysis found only 4% of the hospitals in PMJAY/MJPJAY were large, with 500 or more beds). Respondents explained that large private hospitals often spent far more per procedure than they could be reimbursed for under these schemes.

> *Big private or corporate hospitals have inherently higher expenditure, with rates much higher than those offered by these government schemes. So, they don't find the scheme lucrative at all. They stay away from the scheme. (Respondent 1, state official)*

Private providers at major hospitals found major surgeries unaffordable under the scheme and often performed them on a no-profit-no-loss basis, negotiating with ancillary service providers to cut costs. Small and medium sized hospitals spent less per procedure, making PMJAY/MJPJAY profitable for more procedures. Respondents also noted that some hospitals joined PMJAY/MJPJAY and were initially quite engaged, but the financial disincentive gradually led them to adopt a passive approach, remaining empanelled but not actively participating in the scheme.

Perceived and actual impact on patient load and patient profile

During interviews, respondents explained that the large private hospitals already had high numbers of patients and thus did not feel a need to engage with PMJAY/MJPJAY in order to increase patient visits. It was also implied that some private hospitals prefer patients from higher income groups.

> *Although no one would say this directly, some private hospitals with patients from specific income group are not willing to cater to poor patients so as to maintain the 'class' of the hospital (Respondent 1, state official).*

Small and medium sized hospitals, on the other hand, were reported to be more likely to struggle to attract enough patients, and thus saw engaging with PMJAY/MJPJAY as a mechanism to increase their overall business. Small and medium sized private hospitals were described as "constantly seeking additional patients" (Respondent 04, district coordinator). The primary motive for these smaller private hospitals to participate in the scheme was to increase patient 'foot fall' and thereby increase profit.

Even with lower package rates, these hospitals aim to stay functional and operational. Many hospitals with this sole objective are keen to join the scheme and are currently awaiting empanelment. (Respondent 4, District Co-ordinator)

Administrative capacity to engage with the scheme

The entire process of PMJAY/MJPJAY engagement from empanelment to pre-authorization to claim settlement unfolds through an online portal. Hospitals must have sufficient digital connectivity and skilled personnel to handle these processes. Inadequate administrative and technological capacity of small hospitals emerged as an important barrier to engaging effectively with PMJAY. The documentation process -- from empanelment preparation to claims submission, as well as handling claim-related inquiries -- demands substantial administrative support and technological capacity within hospitals. Respondents were dissatisfied with the complexity of these processes and volume of required paperwork. They noted that technical errors in the documentation processes could result in prolonged pending cases. Small hospitals in rural areas were particularly unlikely to have the personnel and technological infrastructure for effective documentation.

Addressing these challenges necessitates the appointment of an additional person proficient in documentation, query response, and liaison activities. However, this incurs an extra cost for the hospital which may not be always feasible. (Respondent 2, district coordinator)

Operational factors affecting private sector engagement with PMJAY/MJPJAY

Monitoring of PFHIS and empanelled hospitals

Inadequate oversight was a barrier to private hospital engagement. Despite the existence of an "oversight society," consisting of representatives from insurance companies, third party administrators, and concerned government officials, unethical practices were reported to be widespread, particularly false or manipulated claims aimed at maximizing profits. For instance, doctors may perform a single procedure but document two, citing medical complications or emergencies. Some hospitals impose additional charges on patients for specific items such as valves or blood, not covered by the scheme.

Yet hospitals found to be in violation of PMJAY/MJPJAY regulations were not held accountable and were instead able to behave with impunity by paying 'informal settlements' to the district coordinator or third-party administrator. Some respondents from private hospitals were deeply disturbed by this corruption and did not want to engage in a scheme that allowed improper practices to go unpunished.

There are private hospitals that aspire to join the scheme with the intention to maximise benefit to people and but they don't find rates viable and they don't want to get into unethical practices such as manipulating packages contents to offset costs to recover the expenses. (Respondent 13, civil society activist).

An additional challenge voiced by private providers was the lack of a 'hospital-friendly' feedback mechanism. While there is a well-established mechanism for redressing patient complaints, respondents reported that there were no feedback mechanisms for private hospitals to express concerns, suggestions, or challenges.

Hospital empanelment process

While some government officials perceived the process for hospitals to seek empanelment as straightforward, private providers reported that it was slow and demanded extensive documentation– or could be circumvented through corrupt practices. Respondents reported that infrastructure audits were non-transparent and did not always comply with established standards. The empanelment committee, comprising the state health society, district team, and third-party administrator, was reported to have solicited bribes to move empanelment applications forward– with amounts from "three to five figures" (Respondent 4) for small hospitals to as high as Rs. 3 million (USD $35,800) for single specialty and Rs. 5 million (USD $60,000) for multi-specialty. District officials explained that some private hospitals secured empanelment by approaching the society with political endorsements, circumventing the audit process. Empanelment was then facilitated based on fraudulent practices, such as forging staff names, duty rosters, and patient registers. As a result, some empanelled hospitals did not adhere to empanelment standards.

If we properly audit the HR [human resource] status of empanelled private hospitals, more than half of the small-medium sized hospitals will get de-empanelled. (Respondent 6, private hospital owner).

Some even paid bribes to be mis-categorized as larger sized hospitals in order to access higher reimbursement rates and access empanelment quotas for larger multi-speciality facilities.

Disturbingly, in one case the registration certificates claim a hospital to be a 150-plus bedded multi-specialty facility, but in reality, it has only 10 beds

and offers nothing beyond maternity care. This was revealed during the periodic audit and hospital was questioned about the unaccounted-for 140 beds. But hospital leveraged political connections and intimidation tactics to avoid scrutiny and senior officials also did not support to take the action. (Respondent 2, district coordinator).

Patient pre-authorization and claims process

For private hospitals, securing pre-authorisation before performing a procedure is essential. A preauthorization request can be approved, delayed, rejected, or cancelled. Third part administrators are required to respond to approval requests within 24 working hours -- and in case of emergency, immediately. And respondents reported that the third-party administrator typically updated the case approval status online within 4–5 h after the hospital uploaded the investigation reports and necessary documents (respondent 2, district coordinator). Occasionally, delays in pre-authorisation occurred due to delay in submission of required documents by patients. However, sometimes third-party administrators delayed pre-authorisation or outright rejected applications. In such cases, hospitals had to contact district coordinators and ask them to convince the third-party administrator to approve the procedure.

Delayed authorization posed challenges for hospitals and patient. The third-party administrator will not reimburse for expenses that were not pre-authorized. When patients require care but are awaiting pre-authorization, they must be billed as private cases, which is confusing and disappointing for patients.

This leads to patient dissatisfaction who come with the expectation of free services under the scheme but having to pay outside the scheme and when district teams inquire about payments, patients may falsely claim having paid, resulting in grievances against private hospitals. (Respondent 11, private hospital owner).

Delays in claim settlement and payment is another key reason for private providers hesitation towards PMJAY/MJPJAY. According to guidelines, claim settlement should occur within 30 working days. Delays in claim settlement manifest broadly in three patterns: one is partial sanction, second is rejection, and third is delays claim processing. According to private providers, delays range from 3 months to a year which makes it challenging for small hospitals to manage paying for staff, doctors, and medicines etc. It was also shared that, many claims advance to the approval stage but linger at the subsequent account verification step, leaving hospitals with pending amounts, some reaching up to Rs. 20–30 million (USD $ 239,000–358,000). It emerged that from the interviews that a common cause of rejection is lack of required documents linked with hospitals technical capacities as mentioned above. Moreover, respondents indicated instances of unofficial financial transactions as additional element to payments clearance.

Discussion

This study offers enhanced understanding of the challenges in private sector engagement within Maharashtra's publicly funded health insurance scheme, PMJAY/MJPJAY. The updated quantitative analysis underscores two significant points. Firstly, despite an increase in the number of private hospitals participating in the scheme, only 13% of all private hospitals in the state have enrolled. Secondly, regional disparity persists, with enrolled hospitals concentrated in urbanised areas. These findings align with earlier studies [15, 16, 26] indicating that the situation has not changed with the increased empanelment. We found few or no empanelled private hospitals in the poorer, rural blocks of Nandurbar and Pune districts. These trends are reflected at the national level as well, where there is low private hospital participation in "aspirational" (i.e., poorer) districts of the country [27], and few (18%) private hospitals at all in rural areas with the vast majority (82%) in urban areas [28]. This disparity in hospital distribution across regions undermines the very purpose of PMJAY, which aims to address inequitable healthcare access in India. As our qualitative exploration explains about the urban-rural disparity, the current empanelment eligibility criteria, which seeks to ensure patients access good quality healthcare services under PMJAY/MJPJAY [15], emerged as a barrier for small-medium sized private hospitals in rural areas to participate in the scheme. can be added here While easing the criteria could enhance empanelment, it might prove detrimental to ensuring quality of healthcare through the PFHIS.

Further, our study found a clear a correlation between hospital admissions and empanelment, indicating that districts with lower empanelment experience reduced utilization. Moreover, our study highlights that most private hospitals in the scheme have fewer than 50 beds, indicating persistent reluctance among large multispecialty and corporate hospitals in participating in PMJAY/MJPJAY —a trend consistent with earlier research findings. Further, the association of healthcare providers, India had also declared that around 2,000 super-speciality hospitals across India have refused to participate due to the lower reimbursement rates [29].

The sustainability of the scheme is highly dependent on the willingness of private hospitals to join. Our study surfaces a multitude of challenges at policy, hospital and operational levels that potentially impede private sector

engagement in the scheme. While approaching the issue of economic unviability for private hospitals, it is critical to acknowledge the tension between public goals of health insurance schemes and the profit maximisation goals of involved private actors, which not only decides their engagement but significantly impacts the effectiveness of the scheme [30]. As well acknowledged in earlier studies [15–17], a low package rate is a major deterrent for private hospitals. Even though rates have increased over time, they remain insufficient to meet the expectation of all types of private hospitals given the heterogeneity of private healthcare sector. On the other hand, increased reimbursement rates carry major implications for the state budget, when PFHIS's cost-effectiveness and contribution in reducing the disease burden is already under question.

To address non-engagement of some hospitals due to insufficient reimbursement rates, two divergent remedies have been proposed. The first, proposed by the WHO [17], is to introduce flexible "dynamic package rates" based on input cost fluctuations, to replace fixed benefit package rates. The second is to standardize rates across all private hospitals in India, as outlined in the Clinical Establishment Act (CEA) passed by Indian parliament in 2010. Under this remedy, all healthcare at private hospitals would cost the same price, regardless of whether patients were paying out-of-pocket, had private insurance, or were covered by PMJAY/MJPJAY. This proposal would end the vast disparity in charges across private hospitals and the lack of transparency for patients. However, the proposal of rate regulation has always met stiff resistance of private doctors [31]. Recently, the Supreme Court addressed public discontent about high costs in private hospitals by passing a judgment to fix charges, utilising the CEA's provisions [32]. It has also highlighted the failure of state governments to regulate the private healthcare sector effectively despite launching health schemes.

There are several operational challenges in the scheme, ranging from delays and irregularities in hospital empanelment, patient enrolment, pre-authorisation to claim settlement and payment. Importantly, these longstanding issues are not exclusive to PMJAY and MJPJAY but have been observed in earlier major PFHIS in India, including RSBY and Rajiv Arogyashri scheme [33–35]. Given the pervasiveness of these issues, there is a need to rethink this operational model. These operational issues point to the weak governance in the scheme and underscore the imperative of strengthening state's oversight [7]. The dispersed nature of responsibilities between the public authority (state society), empanelled hospitals, health insurance company and Third Party Administrator, gives rise to the diffusion and fragmentation of accountability in such schemes. Therefore, instead of merely relying on Third Party Administrators to implement the scheme, building accountability mechanisms and strengthening the governance at state society level is critical.

Instances of unnecessary procedures and false or manipulated claims, charging patients extra for non-covered items, and double charging by some private hospitals to maximize profits from the scheme, pose ethical concerns. These issues have been well documented by the earlier research on various PFHIS [15, 33–35]. To tackle these issues, the regulation of private sector is regarded as a key tool [36]. It is also suggested that, unless regulated [37], private sector should be not be involved in PFHIS to ensure its positive contribution towards the public health goals. In this context, enforcement of already enacted CEA- a regulatory framework coupled enhancing governance and accountability mechanisms, would be a constructive way forward.

Given the myriads of private sector engagement challenges faced by publicly financed health insurance schemes, some [38, 39] have questioned the government's dependency on private hospitals in order to meet public health needs. Engaging private hospitals has the benefit of leveraging existing health infrastructure and supplementing public sector provisioning of health services. However, given low engagement, weak regulation, and costs for the state, it prompts a fundamental question of whether strengthening the public health system may be a more viable pathway towards UHC? It is necessary to assess and decide whether government funds should be allocated to expanding private sector involvement in the scheme or to strengthening and expanding the public health system.

Conclusion

This empirical study contributes to enhancing the understanding of private sector engagement challenges and provides insights for devising a modified approach for effective PFHIS and UHC in India. The framework for understanding private sector engagement challenges that was developed during this study could be applied in contexts outside India to assess complexities related to intend, capacities, interests and interactions between private and public actors in the PFHIS.

While the PFHIS scheme has made progress in empanelment, the findings underscore the complexity of achieving equitable geographic distribution and accessibility within the PFHIS, challenging the scheme's objective to provide healthcare access to marginalised sections of the population. This study identifies critical challenges in private sector engagement at policy, hospital, and operational levels. Policy limitations, including fixed packages and low rates, combined with budgetary restrictions and stringent empanelment criteria, hinder private hospital engagement. From the hospital perspective, economic

unviability, the impact on patient load and profile, and the inadequate administrative capacity deter participation. Operational issues such as inadequate monitoring, a convoluted empanelment process, and delays in pre-authorization and reimbursement create an unfriendly environment for private sector engagement.

In addressing these systemic issues, creating enabling environment while also achieving scheme's objectives is critical. To do so, policy measures such as long overdue revision in package rates, revision in packages protocols, prompt reimbursement process, responsive monitoring mechanisms by state society, needs to be taken on urgent basis. While in the long-term, state should consider regulation of private hospitals enforcing already enacted CEA, coupled enhancing governance and accountability mechanisms as well as universal rate standardization across all private hospitals with which economic viability will no more be a concern among different private hospitals. However, within the broader health system reform process, considering the current reliance of the PFHIS on weakly regulated private hospitals and under-resourced public hospitals, a comprehensive, two-fold strategy is imperative. It should involve strengthening the public health system and enhancing engagement with regulated private hospitals to improve the scheme's effectiveness and ensure equitable healthcare provisioning.

Supplementary Information

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Supplementary Material 1.

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Authors' contributions
SM conceptualised the project. SM worked on the methodology, collected and analysed data, administered the project with inputs from KS. DY, PI and SM coordinated and conducted data collection and analysis. SM wrote the original draft and worked on revisions. KS reviewed the draft and provided critical editorial inputs. All authors reviewed and approved the manuscript.

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Data availability
Most of the quantitative data is available on scheme websites. Anonymized transcripts of the qualitative interviews can be provided by the corresponding author upon reasonable request.

Declarations

Ethics approval and consent to participate
This study had received ethics approval (IEC30/2023) by Institutional Ethics Committee of Anusandhan Trust. Informed consent was obtained from all the participants. All participants gave their written, recorded or verbal consent to participate in the study. Details of the same have been mentioned in the methodology section.
This study does not include any experiments on humans and/or the use of human tissue samples.

Consent for publication
NA.

Competing interests
The authors declare no competing interests.

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