

# Overcoming roadblocks to increase PPPs in tier 2 cities and beyond

Draft Report

March 2024



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# 01

## Summary



# India needs take bold steps to increase private sector participation and increase bed capacity in tier 2 cities and beyond to provide accessible care

The Indian healthcare sector faces substantial challenges due to inadequate infrastructure and clinical resources. With a bed density of approximately **1.2 beds per 1,000 population**, significantly lower than other developing nations, there is an imperative need for improvement. Despite the launch of the AB-PMJAY scheme in 2018, which increased demand for tertiary care services, about **65% of hospital beds** are still concentrated in **metro and tier 1 cities**, leading to inequitable distribution. India's healthcare expenditure is **~4% of GDP**, much lower than other developed and developing countries.

While there has been an increased adoption of PPPs in dialysis and radio diagnostics, despite the VGF scheme **multispecialty hospital PPPs have not been successful in India.**

High capital cost per bed with and project delays (especially greenfield PPP) due to multiple approvals from different stakeholders affect project viability. Uncertainty in demand with respect to patient footfalls, lower treatment rates, delayed payments, higher manpower costs as compared to hospitals in tier 1 significantly affect cash flows for hospitals especially in tier 2/3 cities thus impacting financial viability.

Furthermore, the preference to **move beyond tier 1 cities is low for super specialist** due to inadequate social infrastructure which means high manpower costs for providers in tier 2 cities and beyond.

All the challenges make PPPs unviable for private sector participants. A bottoms up approach for a greenfield hospital PPP project focusing only on schemes patients have an operating cost per bed per day of **~INR 11-12k whereas actual realizations (ARPOB)** under government schemes typically **40 to 60% lower at 6 to 7k per day**. To operate the facility at **'no cost'** an **additional ARPOB (or an opex VGF funding) of ~INR 4-5k per bed** per day would be required.

In a healthcare infrastructure deprived nation, it is pertinent to attract private capital to provide affordable yet accessible quality care to all sections of the population especially when the government is moving from a provider to a payor. Even if India was to target reaching a bed density of 2 per 1000 population, an incremental 1.5 mn beds would be required to be created. This would entail an investment requirement of more than INR 8,000 bn. To target, a ~5% of this incremental supply from PPP's, it would mean attracting an investment of more than INR 360 bn

This would mean looking at multiple levers be it introducing a standardized 'best practices' PPP policy capturing what works from examples in India and across the globe, reducing capital expenditure and enhancing profitability. Other enablers like providing a stable policy environment, bridging the trust deficit, and a single-window clearance system for project approvals will go a long way in building confidence with the private sector.. This will enable a **'win-win' for all stakeholders and enable delivery of accessible affordable quality care in tier 2 cities and beyond**

# PPP projects face significant challenges in India

## *Demand uncertainty*

- Low patient footfalls
- Inaccessible locations unable to attract patients and employees

## *Lack of a pricing mechanism and benchmarking*

- Government scheme prices are at a discount of 50-60% to cash rates

## *High operating expenses*

- Doctor cost, others

## *Working capital impact*

- Delay in reimbursement – trust model

## *High capex cost*

- High capital intensity for greenfield projects
- Lower revenue/ profitability leading to poor return ratios

## *Inadequate institutional mechanism*

- No standardized PPP policy
- No single window clearance

## *Trust deficit*

- Public and private providers interpret objectives differently



**Low revenue and high-cost structure coupled with delayed cash flow results in unviable PPPs – thus generating very low interest from operators and investors**

Running PPPs only on govt. scheme patient seems unviable - cost per bed per day is typically 1.2 to 1.7x the realizations

	Case 1 - 100 beds			Case 2 - 300 beds		
<b>Operating cost per bed per day without financial cost (INR)*</b>	10,700	11,300	11,700	11,600	12,200	12,600
	PMJAY rates	Tamil Nadu rates**	Maharashtra rates^	PMJAY rates	Tamil Nadu rates**	Maharashtra rates^
<b>Indicative ARPOB per bed per day (INR)</b>	6,600	8,500	10,200	6,900	8,800	10,500
<b>Differential</b>	<b>1.6x</b>	<b>1.3x</b>	<b>1.2x</b>	<b>1.7x</b>	<b>1.4x</b>	<b>1.2x</b>



**Gap to operate at 'no cost'**

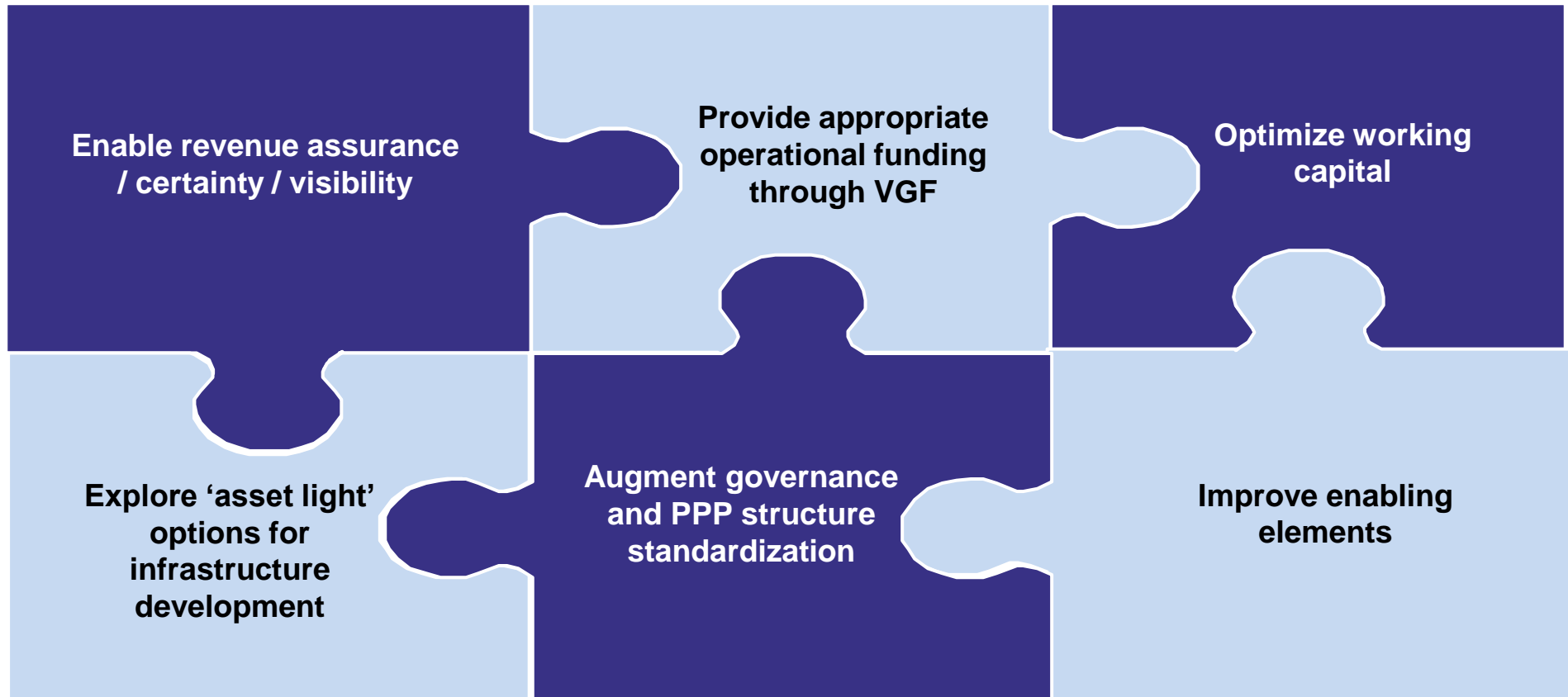
- Operational costs of INR ~11 – 12k per bed per day are ~1.7x the realizations from PMJAY schemes, resulting in a deficit of around INR 4-5k per bed per day
- Thus, there's a for a model which can either increase revenue significantly (minimum ARPOB, higher realization) or reduce operational costs (deficit funding) or a combination of both

Notes: \*Includes depreciation, \*\*CMCHIS – Chief Minister's Comprehensive Health Insurance Scheme, ^MJPJAY – Mahatma Jyotirao Phule Jan Arogya Yojana

Source: Inputs from Quadria Capital and Regency Healthcare

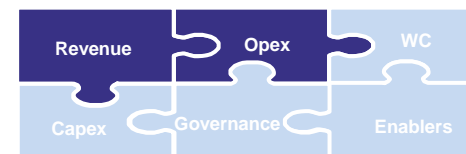
It is thus pertinent to take a slew of action points across multiple areas to enable private sector's participation in PPPs to provide accessible care in tier 2 cities and beyond

### ***Best Practices PPP***





# Recommendations (1/3)


Assist in revenue visibility & assurance and lower operational costs




## Enable demand and revenue assurance

-  **Patient channelization**
  - Established **referral pathway** from government hospitals; Narrow networking - priority routing of sponsored patients
  - Strengthening of **PHC/ CHC network**
-  **Location assessment**
  - Evaluate **centrally-located** government **land parcels** for PPP
  - Systematic location assessment** to ensure easy accessibility for patients

## Provide appropriate deficit funding through VGF

-  **Deficit funding through VGF**
  - Operational VGF for a minimum number of years** to ensure healthy return ratios for private providers
  - VGF provision to be **adjusted y-o-y to account for price inflation** of materials, salaries and other utilities costs
  - Evaluate providing additional **subsidies on electricity, power & fuel** to providers to ease cash flows

## Learning from other sectors / geographies

**Minimum volume guarantee in a dialysis PPP** (*Government of Uzbekistan and Nephroplus*) 

- The government **guaranteed minimum number of patient per annum**

## Learning from other sectors / geographies

**Deficit funding in a multi speciality project** (Narayana Health and Shri Mata Vaishno Devi Shrine Board) 

- VGF was provided for **~5 years to cover the operating losses** – in an environment where demand visibility wasn't strong

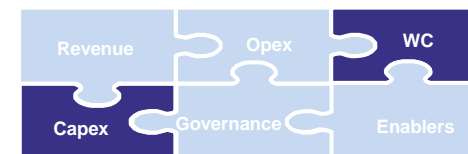
Source: Secondary Research

Source: Health Financing Paper I, March 2023



## Recommendations (2/3)

### Optimize capital deployed – capex and working capital



#### Optimize working capital



##### Reimbursement timelines

- Evaluate alternate payment methods like **advance payments** based on **estimated number of patients/volumes** and later adjusted against submitted bills



##### TPA mode to enable faster reimbursement timelines

- Ensure reimbursements **are made on time** - evaluate **routing of payments through insurance companies/TPAs**

#### Learning from other sectors / geographies

##### Timely payments (in PET-CT PPP project - Anderson Diagnostics and Tamil Nadu Medical Services)



- Timely payments routing through TPA with a **stated turnaround of 7 days** (payment was never delayed beyond 30-45 days)

Source: Health Financing Paper I, March 2023

#### Explore 'asset light' options for infrastructure development



##### Options for infrastructure development to distribute capital risk

- **Asset light model:** Evaluate a 'co-creation' investment in infrastructure by the government
- **Unbundling of contracts:** Opt for separate EPC contracts for *building infrastructure* and separate for *equip & operate*
- **Consortium:** Allow a consortium of specialist partners (EPC contractor + hospital operator) to enable participants to focus on their expertise

#### Learning from other sectors / geographies

##### Unbundled contracts: Hospital de Braga, Portugal

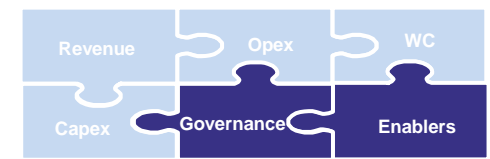


- **Unbundled contracts** for building infrastructure and operations – thus enabling **balance of risk** between two specialist providers


Source: Health Policy Journal, Project Finance & Infrastructure Journal

# Recommendations (3/3)

## Augment governance and other enabling elements




### Augment governance and PPP structure standardization



#### Single window clearance

- Single window clearances to fast-track approvals for PPP projects, **enabling quicker rollout**
- Evaluate implementation of **self / 3<sup>rd</sup> party certifications** to obtain clearance for select, low-risk compliances




#### Contract standardization

- Need for establishing standard and stable '**best practices**' PPP policy through imbibing learnings
- This can **enhance transparency** and align **expectations** among stakeholders

### Learning from other sectors / geographies


#### NATHEALTH Industry Survey

More than **50% respondents** requested for **reforms in 36 out of 43** mandatory compliances for setting up hospitals through **self certification and reduced audit frequency**




Source: NATHEALTH Administered Healthcare Industry Survey on compliance feedback from 40 respondents

### Improve enabling elements



#### Regular price revision of government scheme rates

- Revise existing prices for govt schemes and **update periodically**
- Provide **flexibility to private partners** to set prices for cash patients



#### Corporate counterparty to enable continuity

- Evaluate involvement of **credible central counterparty** to provide assurance on **project progress, policy continuity** and **ensuring streamlining of operations**




#### Digital interventions

- Leverage digital solutions such as remote monitoring, teleradiology can be useful in bridging the gap

### Learning from other sectors / geographies

#### Solar Power: Purchasing by NTPC

- In 2015, **NTPC was made the purchaser for solar power PPP** projects, which was earlier done by state respective governments . Solar power installed **base increased by 9X from 2015 to 2019** mainly driven by channeling purchases through a **credible, central counterparty**



Source: NATHEALTH

# 'Best Practices PPP' can enable more than 300 new hospitals and improve lives of 6mn patients each year over the next 15 years...

## Benefits for the Government....



Increased access to healthcare for patients



Improved patient outcomes

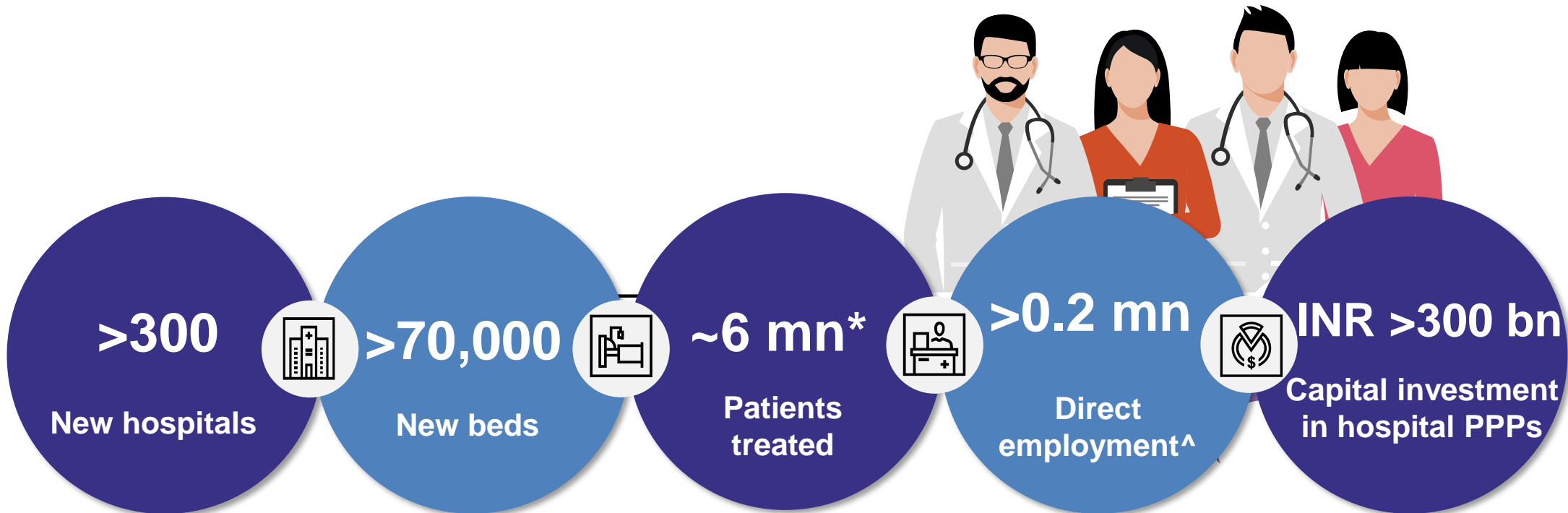


Improved utilization of infrastructure and clinical resources



Rapid deployment of projects

Successful PPPs can have a significant impact on patient outcomes leading to overall increase in goodwill for the government

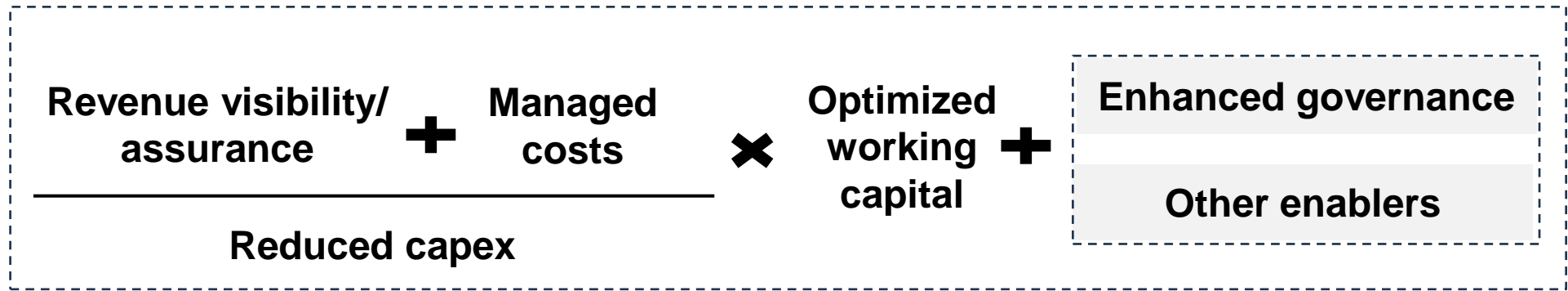


Successful PPPs provide an opportunity to treat a larger pool of patients in new geographies beyond metros

Note: \*Does not include Out patients, ^does not include indirect employment

...creating a 'win-win' for all

## PPP Equation



**Excited  
Operators/  
Investors**



*Continuous  
investments*

**Cured  
Patient**



*Improved outcomes  
and experience*

**Energized Govt/  
Policy Makers**



*Revitalized  
PPP policies*

## PPP Cycle

# 02

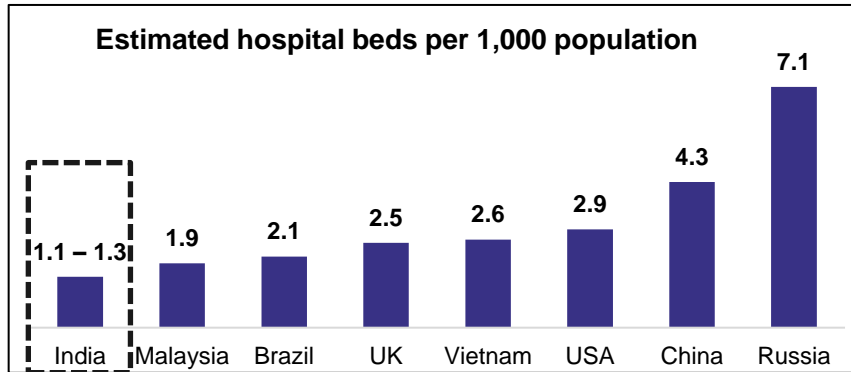
Why is there a need for renewed focus on hospital PPPs?



# India suffers from lack of hospital beds and clinical resources with limited spend on capital investments



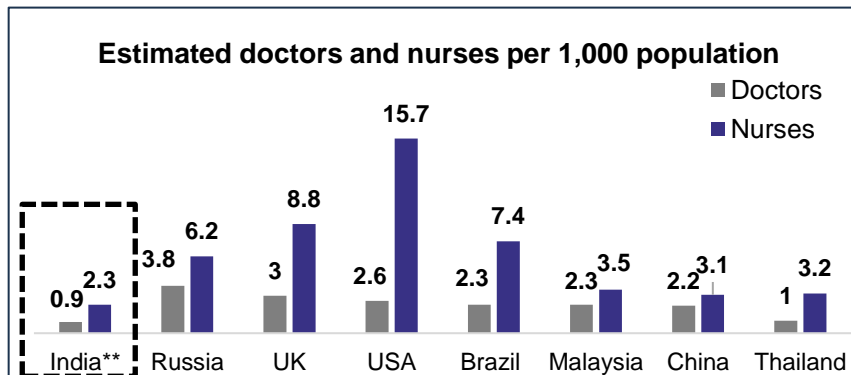
**Insufficient infrastructure & uneven distribution**



- India's hospital bed density is about **1.2 beds per 1,000** people, lower than Brazil, China, and Russia's.
- Additionally, **~65% of beds** are concentrated in metro/tier 1, highlighting the urban-rural disparity



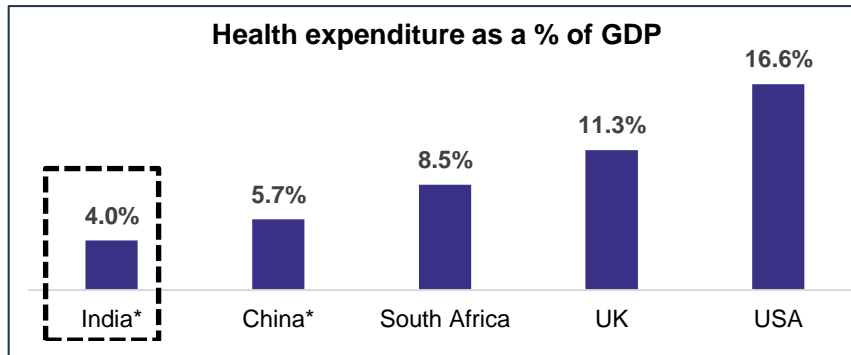
**Limited availability of resources**



- Significant gaps between India and other economies in terms of clinical resources. India has **0.9 doctors per 1,000 people**, considerably lower than other countries
- The availability of super specialists **consultants is concentrated in metro/ tier 1** due to limited opportunities and lack of social infrastructure in tier 2 cities and beyond



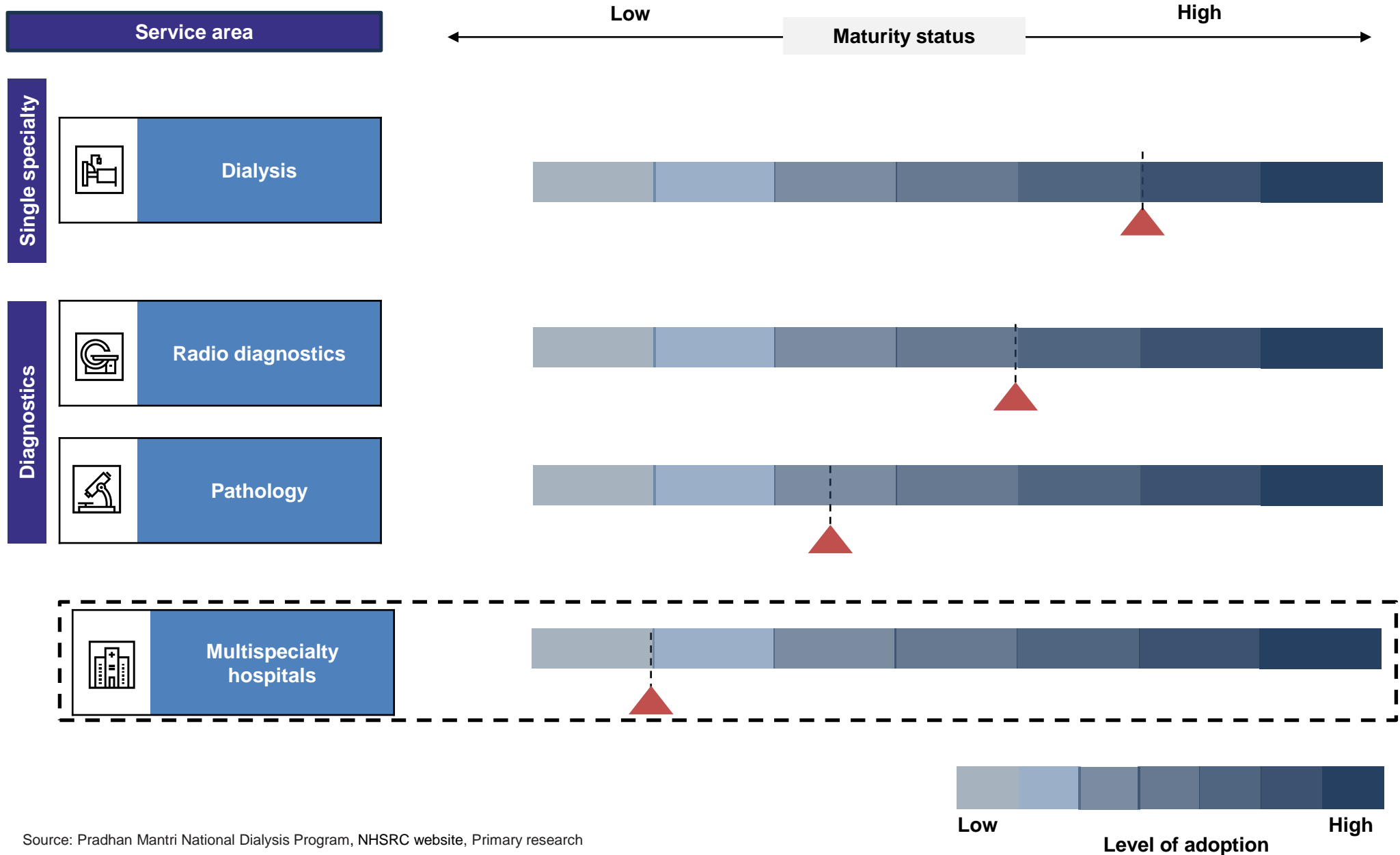
**Inadequate govt funding**



- India's healthcare expenditure is **~4% of GDP**, much lower than in other developed and developing countries
- Moreover, **only 6-7%** of that is **on capital expenditure (infrastructure creation)**

Note: All data above for 2022, \*Data available for 2020, \*\*Excludes 0.8 Mn AYUSH practitioners  
Source: Secondary research, World Bank, Statista, WHO

While there has been increased adoption of PPPs in specific areas such as dialysis and radio diagnostics, hospital PPPs are yet to gain momentum



Source: Pradhan Mantri National Dialysis Program, NHSRC website, Primary research

Hence, a strong need for renewed focus on hospital PPPs is required to provide equitable access of healthcare services across all population segments

Context

**Inequitable distribution of health infrastructure and resources:**

- Bed density (~1.2) significantly lower than other countries. Even this is largely (>65%) concentrated with in metro / tier 1 cities.

**Under penetrated market: Low spend on healthcare:**

- India's healthcare spend at ~4% of GDP, significantly lower than developed and developing nations

**Higher adoption of PPP in other healthcare formats:**

- While PPPs have taken off in dialysis (15% of dialysis machines) and radio diagnostics (<5% of CT scan machines), hospital PPPs are low (<0.5% of the hospital beds)

*Uptake in hospital PPPs very low in India*



*What will this paper focus on:*



Our focus



**Why hospital PPPs have not taken off?**



**Is it financially viable to run hospital PPPs at gov. scheme rates?**



**What needs to be done for making PPPs a success?**



**Building blocks for a PPP Policy**



# 03

Why earlier hospital PPPs didn't work?



# Despite strong need and availability of the VGF scheme, there has seen a limited momentum in hospital PPPs

- VGF scheme was extended to healthcare sector in 2010 and was enhanced in 2020 offering capital grants of up to 80% from the earlier 60%
- Two states Odisha and Uttar Pradesh have received in-principle agreement for PPP projects\*
- 7 projects under Department of Health and Family Welfare, Odisha and 6 projects under Government of Uttar Pradesh (towards medical college and hospitals in 6 districts)

	Sub-scheme 1	Sub-scheme 2
Applicability	<ul style="list-style-type: none"> <li>• PPP projects proposed by state governments, central ministries and statutory authorities</li> <li>• Projects to be awarded on Design, Build, Finance, Operate and Transfer (DBFOT) basis</li> </ul>	
Eligibility	The projects should be self sustainable (100% operational cost recovery) in terms of operational expenditure.	The project should be sustainable with VGF support of 50% O&M costs ( <i>provided for the first five years</i> )
Financial support	<p><b>Capital grant:</b></p> <ul style="list-style-type: none"> <li>• <b>Central governments:</b> Lowest capital grant quoted subject to maximum 30% of total project cost</li> <li>• <b>State governments:</b> Additional grant up to maximum of 30% total project cost</li> </ul>	<p><b>Capital grant:</b></p> <ul style="list-style-type: none"> <li>• <b>Central &amp; state governments:</b> Maximum 40% each of total project cost</li> </ul> <p><b>Operational grant:</b></p> <ul style="list-style-type: none"> <li>• <b>Central &amp; state governments:</b> Maximum 50% of NPV (up to 25% each) of the O&amp;M costs for the first five years after COD (partial funded)</li> </ul>

Note: COD – Commercial Operations Date, \*includes medical colleges and hospitals

Source: <https://pib.gov.in/PressReleasePage.aspx?PRID=1671914>, <https://www.pppinindia.gov.in/vgf/in-principle/sectorwise/health>

# Hospital PPPs face significant challenges (1/3)

*Due to demand uncertainty as well as low government scheme rates*

## Uncertain and low demand & revenue



### Demand uncertainty / patient volumes

- Limited awareness as well as personal preferences results in an outflow of patients to metro and tier 1 cities for treatment. Less developed primary care infrastructure (CHC/ PHC) results in limited/ late diagnosis thus impacting patient volumes
- Lack of linkages in the referral systems through government hospitals and / or lack of volume guarantee leads to uncertainty in revenue



### Unattractive locations

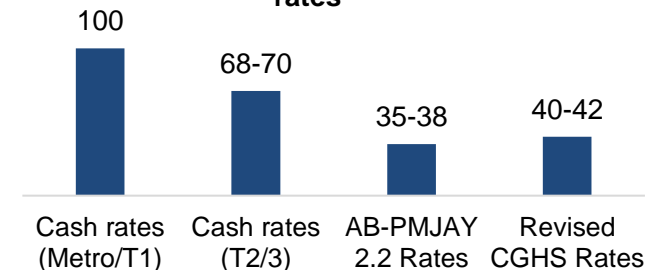
- PPPs hospital at a location with **inadequate catchment size** or **those located on the outskirts** struggle to attract patients



### Low procedure pricing in government scheme

- Patient population in catchment areas in tier 2 and 3 cities are majorly covered by government scheme such as PMJAY (and allied state schemes) whose rates are substantially lower, (**approximately 50-65%**) **than cash rates**. Lower realizations significantly affect profitability and cash flows

Indexed prices – Cash rates vs Govt rates<sup>^</sup>



### Bed reservation mandates

- Some PPPs required reserving **beds** for scheme patients which combined with generally lower realizations and cases of delayed reimbursement **does not yield adequate returns** making it unattractive for the private players

Note: <sup>^</sup>For select key procedures

Source: Secondary research, Primary interviews

## Driven by a multitude of factors (2/3)

*While high operating costs impact margins, capital expenditure for hospital projects impacts project economics*

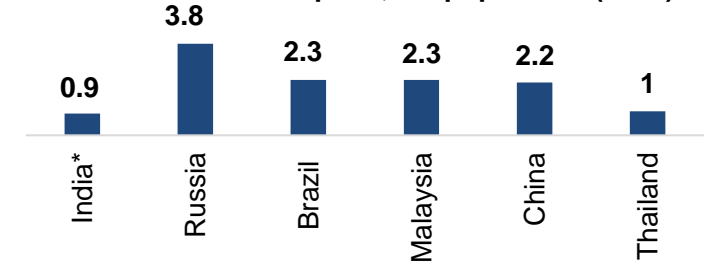
### High operational expenses



Limited human resource availability

- India has **~0.9 doctors per 1,000 population** significantly lower than other developing nations. This combined with doctor's low preference to work in tier 2 cities and beyond results in higher payouts to retain doctors (Doctor payouts in tier 2 cities and beyond are **~1.5-2x of the payouts in metro/ tier 1 cities** leading to significant increase in the operational costs)

Estimated doctors per 1,000 population (2020)



### Capital funding



High capital intensity  
(Greenfield projects)

- Hospitals are generally **asset heavy with an investment of INR 5-7 mn per bed\*\*** (for tier 2/3 cities) with construction timeline of 2 to 3 years. Breakeven of 2 to 3 years significantly increasing payback period to 8 to 10 years (especially with high % of govt scheme patients). This impacts return ratios, unless capital subsidy/ VGF is provided

*“Hospital interiors need to be designed appropriately to attract cash patients. A hospital located within government premises, has limited pull for private patients”*

**- CEO, Standalone hospital (Metro city)**



Infrastructure challenges  
(Brownfield projects)

- Government hospitals have limited single and twin beds. Renovating and refurbishing these facilities is sometime difficult given the structure and layout of the hospital. Without this upgradation of infrastructure, it impedes **ability to attract cash/ private insurance patients**

*“Even if a separate entrance/ block is created for private patients in a government facility, the attractiveness for private patients is limited”*

**- CEO, Standalone hospital (Tier 1 city)**

Note: \*Excluding AYUSH doctors \*\* With land cost and would vary on the built-up area and specialties

Source: AB-PMJAY, MoHFW, Primary Research

## Driven by a multitude of factors (3/3)

*Approvals from multiple authorities resulting in project delays, lack of standardization in contracts and delayed reimbursement are other challenges faced by healthcare providers*

### Governance, PPP structure and policy



#### Lack of contract standardization

- PPP contracts generally have different terms and conditions, roles and responsibilities, bid parameters and inadequate transparency often leading to misalignment of expectation for both the parties leading to delays and operational differences



#### Multiple compliances

- More than 40 mandatory compliances (approvals and permissions related to infrastructure and operations) from **various authorities** are required to commission and operate a hospital. The approval process is generally time consuming often leading to delays, impacting time to market, escalated costs and hence **low attractiveness for potential private partners**



#### Delayed reimbursements

- Reimbursements from the government for scheme patients are **generally delayed** affecting cashflows. If majority of patients would be through government sponsored schemes, **with no assured volumes and low prices**, the **risk of delayed payments** makes the proposition of a PPP hospital unappealing for the private provider



#### Trust deficit between stakeholders

- Stakeholders within the PPP tend to interpret objectives differently with various separate focus areas
- The lack of a common set of objectives result in a trust deficit between stakeholders and can hinder the progress of projects and the overall uptake of PPPs in healthcare

*“We had submitted bids for a PPP project, however multiple weeks after bid submission there was no update from the authorities, and later we were informed that there will be re-bid. A lot of time and effort goes in PPP with limited success”*

**- CEO, Standalone hospital (Metro city)**

*“There is no effective hospital PPP policy in India yet..... Hospitals can take lessons from other sectors where the number of regulations are less and decision-making lies with one body, this makes the overall process more efficient”*

**- Director, Multilateral Organization**

# Feedback on compliances - assessment of NATHEALTH administered healthcare industry survey

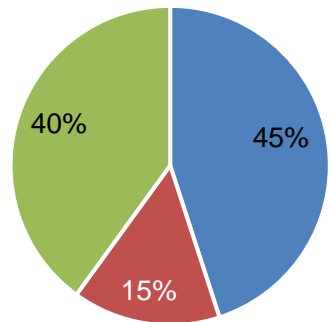
An online survey was conducted by NATHEALTH in November 2023 with 40 healthcare providers through different associations

The survey was done to assess feedback on 43 mandatory compliances for existing and new hospitals

**Some of the challenges highlighted in the survey towards compliance for setting up a hospital:**

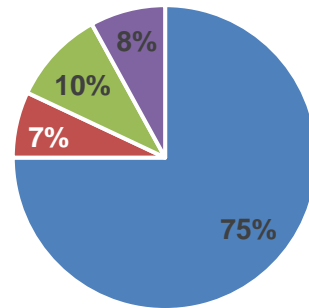
- Complex process
- Multiple stakeholder involved
- Many licenses and policies
- Many statutory requirements
- Lack of transparency

Distribution by no. of beds



■ <100 ■ 100-500 ■ >500

Distribution by type of provider



■ Hospitals  
■ Nursing home  
■ Speciality/Diagnostic provider  
■ Misc

**Survey highlighted for 36 compliances required to start / operate a facility more than 50% respondents requested reforms either through:**

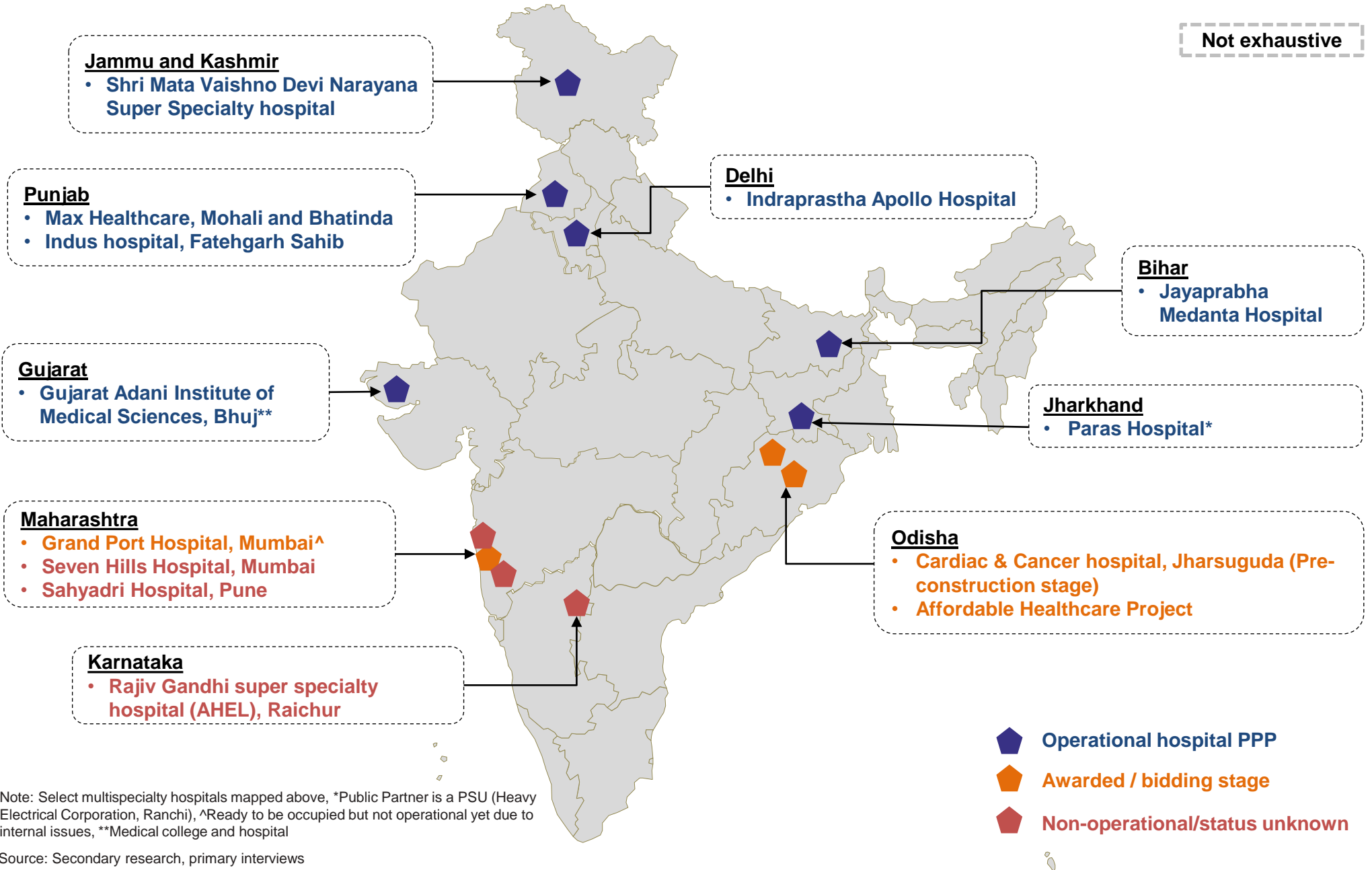
1. Self certification
2. Reduction of enforcement frequency or total elimination

**Respondents also mentioned that there should be flexibility and single window clearance towards ease of doing business**

**Digital, self certification and touchless clearance were seen as ways to achieve transparency**

Source: NATHEALTH Administered Healthcare Industry Survey: Compliance Feedback for running or setting up new health care infra (jointly with 7 other major healthcare federation members with healthcare providers AHPI, FHA Karnataka, PHANA, FICCI, ICC, ASSOCHAM and PhD Chamber of Commerce) in November 2023. Number of participants 40

All this has resulted in very few hospital PPPs in India and even within those some have become nonfunctional...



...though some PPPs are seeing signs of success driven by the following factors

Select examples

Parameters		Multispecialty hospital Mohali	Multispecialty hospital Patna	Cardiac & Oncology hospitals Jharsuguda**
Partners	Public	Govt of Punjab	Govt of Bihar	Govt of Odisha
	Private	Max healthcare	Global health private limited (Medanta)	Vizag & Kolkata based providers
Year of commencement		2011	2020	Awarded (2023)
Tenure		50 years	33 years	15 years
Bed capacity		230 beds*	500 bed	100 beds each
Key takeaways		<p><b>Demand and revenue:</b></p> <ul style="list-style-type: none"> <li>• <b>Pricing:</b> Flexibility to set prices for non-government patients and no bed reservation mandate</li> <li>• Revenue share model</li> <li>• <b>Location: In civil hospital campus</b></li> <li>• Easy accessibility to patients from nearby geography</li> </ul> <p><b>Other enablers</b></p> <ul style="list-style-type: none"> <li>• Operational autonomy provided to the provider</li> </ul>	<p><b>Demand and revenue:</b></p> <ul style="list-style-type: none"> <li>• <b>Pricing:</b> Flexibility to set prices for non-government patients</li> <li>• Revenue share along with an annual premium with yearly escalation</li> <li>• <b>Location:</b> Utilized an existing trust/state government hospital land parcel</li> </ul> <p><b>Bed reservation:</b></p> <ul style="list-style-type: none"> <li>• 25% beds reservation for BPL families, treated at CGHS rates</li> </ul>	<p><b>Demand and revenue:</b></p> <ul style="list-style-type: none"> <li>• <b>Pricing:</b> Flexibility to set prices for non-government patients and no bed reservation mandate</li> <li>• Fixed annual concession fee with yearly escalation</li> </ul> <p><b>Capital expenditure by government:</b></p> <ul style="list-style-type: none"> <li>• Entire project investment (land, building and equipment by the government)</li> <li>• Initial 'zero capex' for private partner</li> </ul>

Note: \*Planned to be upgraded up to 400 beds, \*\*Awarded – yet to be operationalized

Source: Secondary research, RFPs, RFQs, Concession Agreements, Primary research



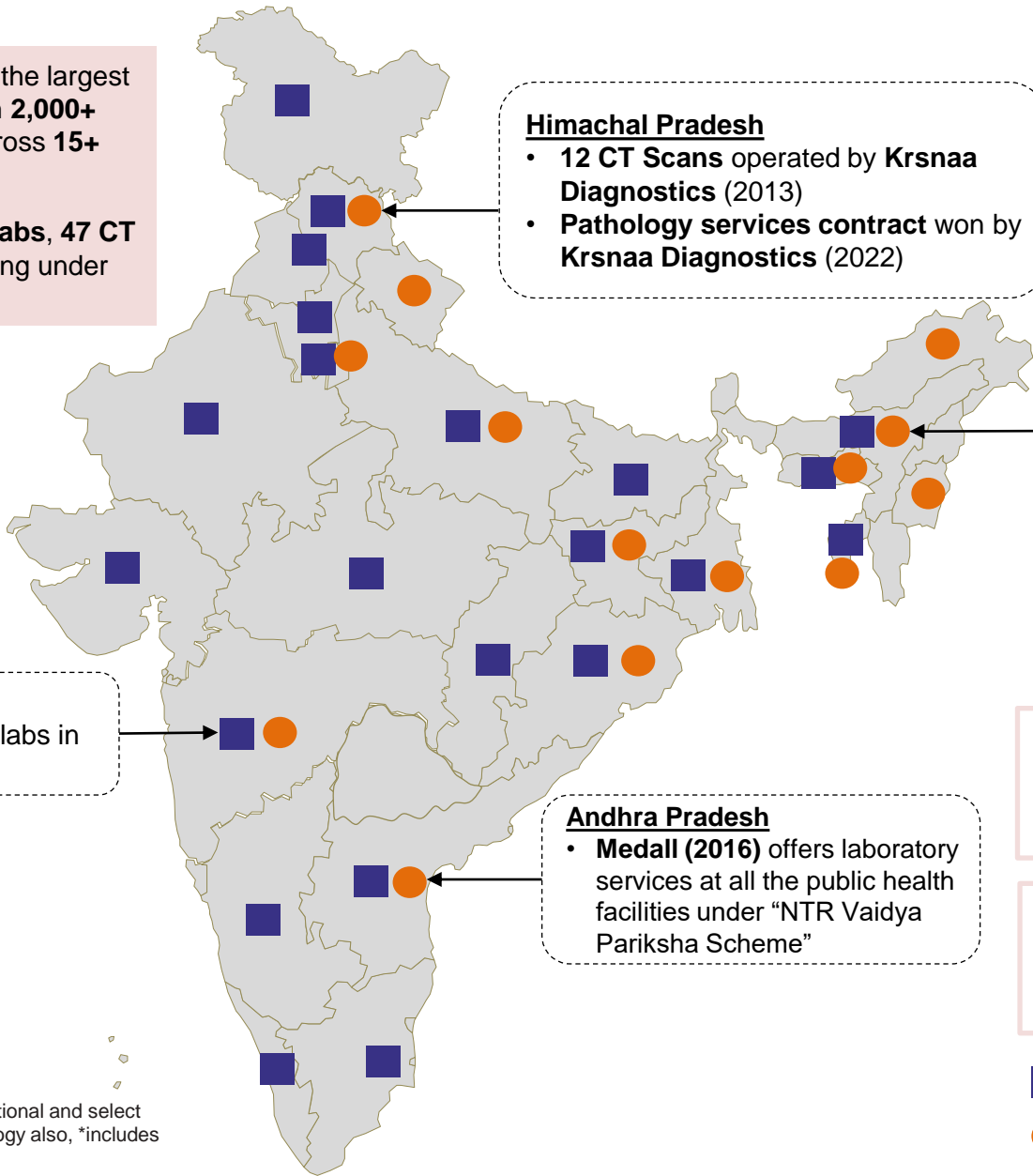
# 04

What are the learnings from diagnostic PPP's?



# Diagnostics PPPs have witnessed better uptake in India with multiple more PPP projects in the pipeline

- **Krsnaa Diagnostics** is one of the largest PPP diagnostics providers with **2,000+ centers\*** under PPP model across **15+ states & UTs**
- As of Q2 FY24, another **160+ labs, 47 CT Scans** and **2 MRIs** are upcoming under PPP model across 3-4 states



Not exhaustive

**Himachal Pradesh**

- **12 CT Scans** operated by **Krsnaa Diagnostics** (2013)
- **Pathology services contract** won by **Krsnaa Diagnostics** (2022)

**Assam**


- **CT scan** services are being implemented in **28 DH** with **Spandan Diagnostics**
- **X-Ray** services at 130 facilities with **Krsnaa Diagnostics**
- **Laboratory** services with **HLL Life Care**


**Maharashtra**

- **HLL Lifecare** had set up 100 labs in 33 districts under PPP (2017)

**Andhra Pradesh**

- **Medall (2016)** offers laboratory services at all the public health facilities under “NTR Vaidya Pariksha Scheme”

 20+ states have some form of radio diagnostics PPP with 300+ CT Scans and 80+ MRIs

 >12 states have some form of pathology PPPs

- Radio diagnostics PPP<sup>^</sup>
- Pathology PPP

Note: Not exhaustive, include historically operational and select upcoming centers as well, <sup>^</sup>Includes Teleradiology also, \*includes labs, collection centers and imaging centers  
Source: Secondary research, primary interviews

# What are the key learnings from diagnostics PPPs?

## Demand and revenue



### Volume guarantee/ Strong funnel

- Some PPPs had provided for minimum volume guarantee – this gives the PPP partner revenue visibility. E.g. Minimum assurance of 36,000 scans annually across 6 medical college hospitals by Himachal Pradesh Govt,)
- *Unlike the case for treatment where patients can drain out, for diagnostics, patients continue to visit locally available centres thus providing a strong funnel for the PPP operator*



### Attractive locations

- Capex heavy radiology PPPs – have generally been concentrated in medical colleges and district hospitals thus providing for a large funnel of patients and enabling high utilization

## Governance and PPP structure



### Strong government role/ support

- Initiatives by the central government in form of “**Free Diagnostic Scheme**” and state government initiatives such as “**Chief Minister’s Free Diagnostic Services Programme**” (Assam) have given a fillip to diagnostic PPPs

## Other enablers



### Easy to compartmentalize

- Easy to compartmentalize and operate radiology department in a hospital, as the private provider has dedicated space and can perform the required tasks with less dependency on other departments in the hospital



### Adoption of technology/ hub & spoke model

- Providers successfully **leveraged tele radiology especially in areas where manpower availability** is a challenge. Most PPP pathology providers leveraged **the hub and spoke model** to cater to a larger catchment area

## However, there are still some challenges...

### Lower pricing



Lower realization under govt. scheme rates

- Many PPPs are referenced to govt schemes rates such as CGHS etc. whose rates are substantially lower, (**approximately 50-70%) than cash rates.** Lower realizations significantly affect profitability and cash flows

### High operational expenses



High logistics cost

- While for radiology, teleradiology works as a solution for remotely location centres, for pathology since there is a need to collection samples even from remote locations and given the diverse geography of the country , logistics costs becomes a significant cost item especially if one has to maintain TAT/ service levels as per the PPP

### Capital funding



High capex requirement

- Capex cost for radiology department is generally high with requirement of CT scan and MRI machines. High capex combined with lower realizations impacts the return ratios for the PPP operators

### Governance and PPP structure



Delayed reimbursement

- Payment delays from the government scheme patients and low-price points as compared to cash rates impact the cash flows and leads to stretched working capital situation



Tenure

- Given that radiology PPPs are asset heavy and some of the key equipment generally can be utilized for more than 10 years (with necessary AMC and CMC in place), the PPP tenure should be aligned to the life of the machine

# 05

Will a hospital PPP be viable only on govt. scheme rates?



## Cost per bed per day in tier 2 cities and beyond are typically INR 11,000 to 12,000...

### Context

- Viability model for **greenfield hospital** projects targeted at offering services to government scheme patients in **tier 2 and 3 cities**
- **Two cases** of different hospitals have been considered to compare the variation in capex and operational costs under different scenarios

### General

Particulars	Case 1	Case 2
<b>No. of beds</b>	100	300
<b>Location</b>	Tier 3	Tier 2
<b>Level of care</b>	Higher secondary care	Higher secondary and tertiary care
<b>Occupancy</b>	45% in Y1, 85% in Y4 at steady state	40% in Y1, 85% in Y4 at steady state
<b>Estimated project cost (INR mn)</b>	<b>567</b>	<b>2,195</b>
<b>Estimated cost per bed (INR mn)</b>	<b>5.5 - 6 mn</b>	<b>7 – 7.5 mn</b>
<b>Case mix</b>	Medical: 60%, Surgical: 40%	Medical: 40%, Surgical: 60%
<b>Operating cost per bed per day (INR) (without financial cost)</b>	10,700 – 11,700	11,600 – 12,600
<b>Operating cost per bed per day (INR) (with financial cost)</b>	13,000 – 14,000	15,000 – 16,000

### Capex

### Revenue & opex

Notes: Above estimation done for 100% government scheme patients, costs can vary basis location, clinical mix, equipment functionality, equipment brand and service levels, Financial cost includes interest component on term loans and ROE, Please refer annexures for assumptions

Source: Inputs from Quadria Capital and Regency Healthcare

...which is ~1.7x the realizations from AB-PMJAY schemes

	Case 1 - 100 beds, tier 3			Case 2 - 300 beds, tier 2		
	PMJAY rates	Tamil Nadu rates**	Maharashtra rates^	PMJAY rates	Tamil Nadu rates**	Maharashtra rates^
Operating cost per bed per day without financial cost (INR)*	10,700	11,300	11,700	11,600	12,200	12,600
Indicative ARPOB per bed per day (INR)	6,600	8,500	10,200	6,900	8,800	10,500
Differential	1.6x	1.3x	1.2x	1.7x	1.4x	1.2x



Gap to operate at 'no cost'

- Operational costs of INR ~11 – 12k per bed per day are ~1.7x the realizations from PMJAY schemes, resulting in a deficit of around INR 4-5k per bed per day
- Even if the PMJAY realizations are increased by 50%, there would still be a requirement for operational funding for hospitals in tier 2/3 cities with PMJAY patients

Notes: \*Includes depreciation, \*\*CMCHIS – Chief Minister's Comprehensive Health Insurance Scheme, ^MJPJAY – Mahatma Jyotirao Phule Jan Arogya Yojana

Source: Inputs from Quadria Capital and Regency Healthcare

# 06

What are the  
action points?





## Recommendations (1/4)

### *Addressing critical gaps by providing demand assurances, location assessment and extended operational VGF can improve the financial viability of PPP projects*

#### Impetus to demand & revenue

#### Applicability



##### Demand assurance patient volumes

- An **established referral pathway** from government hospitals and strengthening of the PHC and CHC network would channelize more patients to the PPP hospitals and diagnostic centres, thereby **ensuring asset utilization, faster ramp up and uptake of superspeciality services**. Narrow networking - priority routing of sponsored patients from the catchment to the PPP centres could ensure guaranteed volumes



##### Location assessment

- A **systematic location assessment** would ensure easy accessibility for patients from nearby areas. Government should evaluate centrally-located government land parcels for hospital PPPs and district hospitals for diagnostics PPPs
- Proximity to existing government facilities** such as district hospitals and civil hospitals can **streamline patient funnel** in PPP hospitals. An accessible location would **facilitate patient flow and help in talent attraction & retention**



##### Bed reservation

- % bed reservation** criteria should align with corresponding measures to improve profitability be it VGF, flexibility on cash pricing, demand assurance measures, etc.



#### Reduce/ cover operational expenses



##### Operational funding through VGF

- Considering the **high cost of providing care** in tier 2 cities and beyond (**INR 11 – 12 K per bed per day** in hospitals\*), operational **VGF for a certain number of years** to ensure healthy return ratios for private providers. VGF provision should be adjusted y-o-y to account for price inflation of materials, salaries and other utilities costs
- Other models to evaluate minimum ARPOB guarantee for hospitals and ARPP guarantee for diagnostics
- The government should evaluate providing additional subsidies/lower rate on electricity, power & fuel to providers to ease cash flows



Notes: \*Costs can vary basis location, clinical mix, equipment functionality, equipment brand and service levels

Hospital Imaging Pathology

## Recommendations (2/4)

### *Capital funding VGF and infrastructure development to be evaluated to enable faster uptake and rollout of PPP centres*

#### Capital funding

#### Applicability

##### Capital funding instruments

- Continue to provide capital expenditure (capex) funding, including **capital grants and subsidies (Capital VGF), low-interest debts**



##### Options for infrastructure development

Given infrastructure creation isn't a core competency of a operators along with the fact that investors in infra projects typical look at 'yields' which are lower than 'equity' returns that investors look at, following models would be evaluated:

- **DBFOT Model:** Government land parcel could be leased to private partners at 'no cost', facilitating infrastructure development
- **Asset-light model:** Consider a 'co-creation' approach where the government invests in building infrastructure, private partners install equipment and operates the facility through an **Equip and Operate model** or government invests in the entire project capex and private partner operates through an **O&M model**
- **Unbundling of contracts:** Opt for separate EPC contracts for building infrastructure and separate for equip & operate for private partners
- **Consortium:** Allow a consortium of specialist partners (infrastructure developers, hospital service provider, diagnostic service provider to bid for projects), this would enable participants focus on their expertise
- **These potential models would distribute capital risk exposure for all stakeholders**



*"If the government wants to treat mass market, they should have some infrastructure solutions tailored to the needs of private service providers so that they are open to a partnership"*

**- CEO, Standalone hospital (Metro city)**

*"Some innovative infrastructure models like unbundling of contracts into EPC and clinical services or allowing consortiums of developers and service providers to participate in projects, should be evaluated "*

**- Director, Multilateral organization**

## Recommendations (3/4)

*Implementing institutional mechanism such as single window clearances, standardized contracts and timely reimbursements can enable a robust PPP structure*

### Governance and PPP structure

### Applicability



#### Single window clearance

- To prevent project delays, **introduce single window clearance to fast-track approvals for PPP projects** and streamline licensing and approval processes through a single-window mechanism, **enabling quicker rollout**
- Evaluate implementation of **self certifications by operators/ providers** to obtain clearance for select, low-risk compliances



#### Contract standardization

- Given the challenges, there's a need for establishing standard and stable PPP policies which covers broad contours including terms & conditions, roles & responsibilities, operating model tailored to market dynamics, selection criteria can **enhance transparency and align expectations among stakeholders**



#### Reimbursement timelines / payment mechanism

- To ensure reimbursements **are made on time**, evaluate **routing of payments through insurance companies/TPAs**
- Evaluating alternate payment methods like an advance payment to the private partner based on an estimated number of patients/volumes/samples and later adjusts against submitted bills



## Recommendations (4/4)

*This needs to be supported by other enablers such as stakeholder collaborations, periodic price revisions of government schemes, and having corporate counterparties as potential partners*

### Other enablers

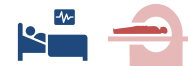
### Applicability



- Conduct a **thorough market study** to assess demand, availability of resources, and gauge private players interest in the location identified before floating the RFP. This enables to prioritize geographies having inadequate healthcare facilities, **improving accessibility to quality care**



- Digital solutions such as remote monitoring and teleradiology works well in radiology department/centres, since the radiologist can view the scan and images remotely and provide diagnosis on real time
- Leveraging these solutions in hospitals can be useful in bridging the demand supply gap and connecting patients with clinicians. For example: Tele-ICU/ e-ICU solutions enable doctors from super specialty hospitals in tier 1 cities to remotely monitor ICU patients in tier 3 cities with a lack of intensivists



- Given the price differentials in government scheme and market rates for healthcare services, to maintain financial viability, it's essential to revise the existing procedure prices and update the prices every **2 years**
- Private operators should have the **flexibility to set prices for cash-paying patients, to ensure better cash flows**



- Evaluate involvement of a **credible central counterparty** to provide assurance on **project progress** and **ensure streamlining of operations**



As compared to diagnostics, there has been very limited uptake of hospital PPPs in the past 15 years, there is a strong need to develop a 'PPP Policy/Framework'. With the government is moving from a 'provider to a payor' it is important to engage and collaborate with healthcare providers and associations to create a 'win-win' situation for both the stakeholders and deliver accessible quality care in tier 2 cities and beyond. There should an institutional mechanism in place to ensure continuity of the PPP Policy

# Granting industry status to healthcare can potentially increase financial viability for providers and enable a shorter time to market

## Potential benefits

### Ease of capital funding

#### Access to funding

- Likely improvement in access to funding for providers due to increased credibility and higher transparency

#### Improved terms for funding

- Better terms for capital funding including reduced cost of capital, interest subsidies etc.

### Streamlining of regulatory approvals

- Implementation of single window clearances and fast track approvals **significantly reducing paperwork** and **optimizing time to market**
- Potential relaxations and exemptions from various stamp duties and other levies

### Infrastructure development

- Ability to acquire land for greenfield projects at industrial rates as compared to commercial rates may provide a significant capital cost reduction

### Reduced cost of utilities

**Access to electricity at industrial rates** leading to lower opex cost per bed per day and improved profitability

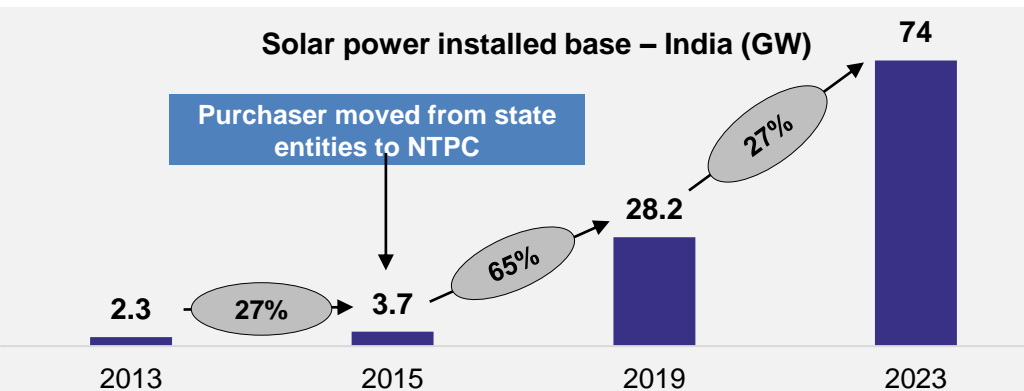
Granting industry status will help to increase bed addition especially in tier 2/3 cities and open up new avenues in PPPs

### Tourism segment has been recently granted 'industry' status to promote tourism

- As of 2023, 11 states have accorded 'industry' status to tourism sector so far including Goa, Karnataka, Gujarat, Kerala, Rajasthan etc.
- The Ministry of Tourism has advised the State Govts and UTs to grant 'industry' status to tourism in their respective States/UTs

# Case studies: Accelerating solar power sector growth by reducing payment risks and increased convenience by implementing TS-iPASS – Telangana’s single window clearance model

## Case study 1: Growth of solar power sector in India



- State departments were in charge of procuring materials used for solar power PPP projects
- In 2015, NTPC was made the purchaser for solar power projects, this accelerated the growth of solar power in the India

Corporate counterparty as partner	Stability across political regimes	<ul style="list-style-type: none"> <li>• Risk of project interruptions due to periodic government changes were reduced</li> </ul>
	Centralized payment	<ul style="list-style-type: none"> <li>• Centralized payment/procurement by NTPC enabled them to consolidate orders, leverage economies of scale and offer better terms to potential private partners</li> </ul>

**Impact** Solar power installed base increased by 9X from 2015 to 2019 mainly driven by channeling purchases through a credible, central counterparty

## Case study 2: High throughput of approvals by implementing single window clearance and self certification system

- Telangana Government enacted the “Telangana State Industrial Project Approval and Self-Certification System (TS-iPASS) Act, 2014”
- **Objective:** For speedy processing of applications for issue of various clearances required for setting up of industries at a single point based on the self-certificate provided by the entrepreneur



Before	After
<ul style="list-style-type: none"> <li>• Separate application to be filled up and submitted at department for each approval</li> </ul>	<ul style="list-style-type: none"> <li>• Single common application form for all state level approvals and submitted online. The same is processed by all departments</li> </ul>
<ul style="list-style-type: none"> <li>• Numerous inspections by several departments</li> </ul>	<ul style="list-style-type: none"> <li>• Self / Third party certifications &amp; joint inspections under various acts.</li> </ul>
<ul style="list-style-type: none"> <li>• Payments only cash/ DD/ challans that necessitated visit to different offices</li> </ul>	<ul style="list-style-type: none"> <li>• Easy and safe online payments</li> </ul>
<ul style="list-style-type: none"> <li>• Multiple visits to the departments</li> </ul>	<ul style="list-style-type: none"> <li>• No physical visits required, all approvals can be downloaded online</li> </ul>

**Impact**

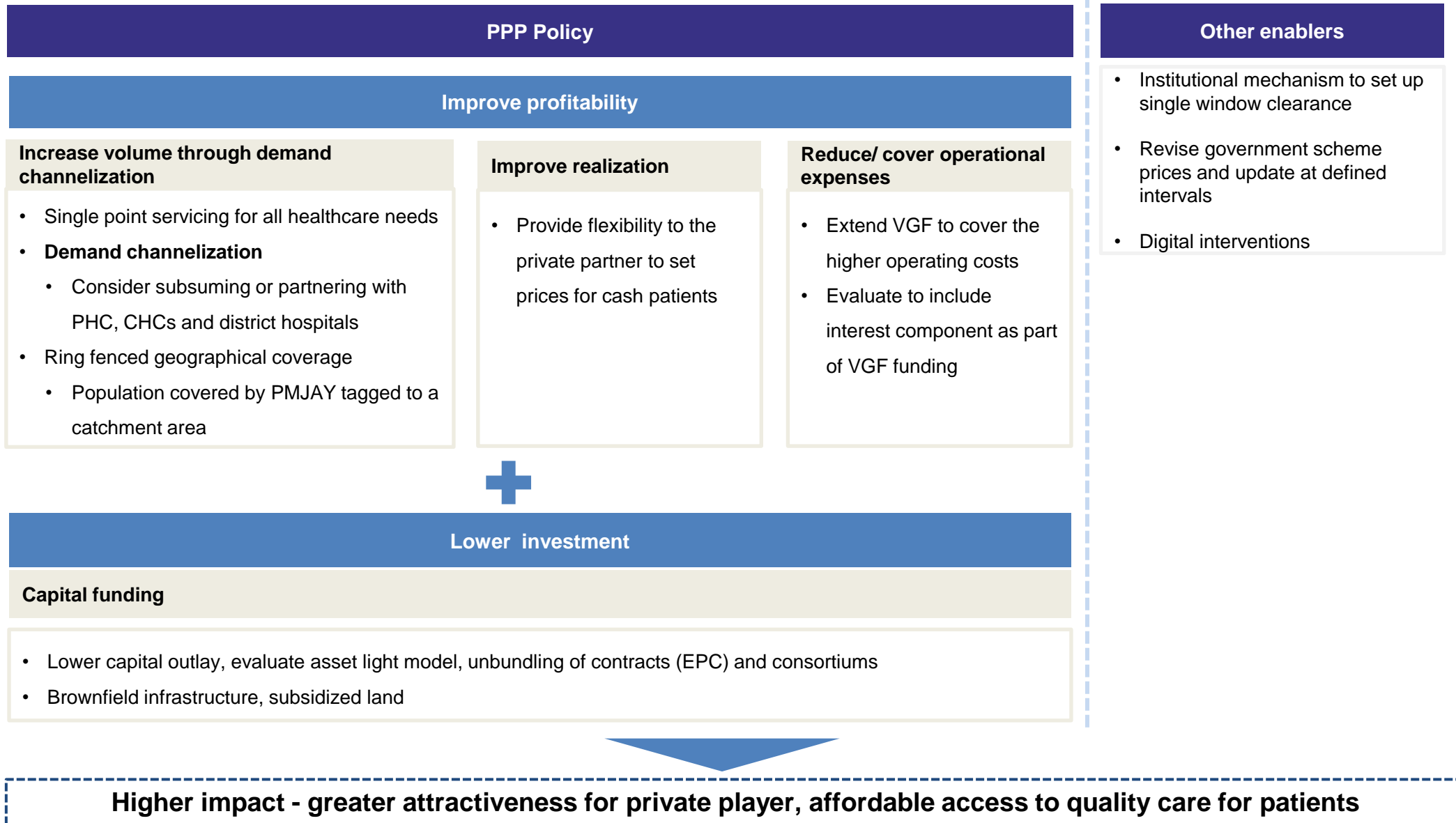
- Reduced time for approval, faster time to market
- Implemented in 2014, and till date ~25,000 approvals have been granted under this scheme



## Case studies: Globally PPPs have been successful due to balanced risk & rewards, contract structure and flexible model

Parameters		Hospital do Suburbio, Bahia, Brazil 	Hospital de Braga, Portugal 
Partners	Public	Government of Bahia	Portuguese Ministry of Health
	Private	Consortium (Promedica+ Dalkia)	Private partner 1 – InfraCo Private partner 2 - CliniCo
Year of commencement		2010	2009
Tenure		10 years (Extended)	30 years (including construction of 2.5 years)
Bed capacity		300	700+
Key takeaways		<p><b>Asset light model:</b></p> <p><b>Capital funding</b></p> <ul style="list-style-type: none"> <li>Public partner invested into the hospital infrastructure</li> <li>Private partner responsible for medical equipment and clinical services</li> </ul> <p><b>Demand and revenue</b></p> <ul style="list-style-type: none"> <li>Outcome based payment model – 31 KPIs identified linking performance to payments</li> </ul>	<p><b>Unbundled contract:</b></p> <p>Two separate PPP contracts to enable balance of risk between infra and service provider</p> <p><b>Capital funding</b></p> <ul style="list-style-type: none"> <li>Private partner 1: EPC contract to design, build, finance and maintain hospital infrastructure</li> <li>Private partner 2: Equipment and clinical services to be provided by CliniCo</li> </ul> <p><b>Demand and revenue</b></p> <ul style="list-style-type: none"> <li>Private partner 1: Fixed fee with performance incentives</li> <li>Private partner 2: Activity based fee (per patient or per bed day) with caps and penalties</li> </ul>

# There's a need to relook at the PPP policy and create a 'Best Practices PPP' to enable attractive financial returns to investors





# 'Best Practices PPP' can enable more than 300 new hospitals and improve lives of 6mn patients each year over the next 15 years...

## Benefits for the Government....



Increased access to healthcare for patients



Improved patient outcomes

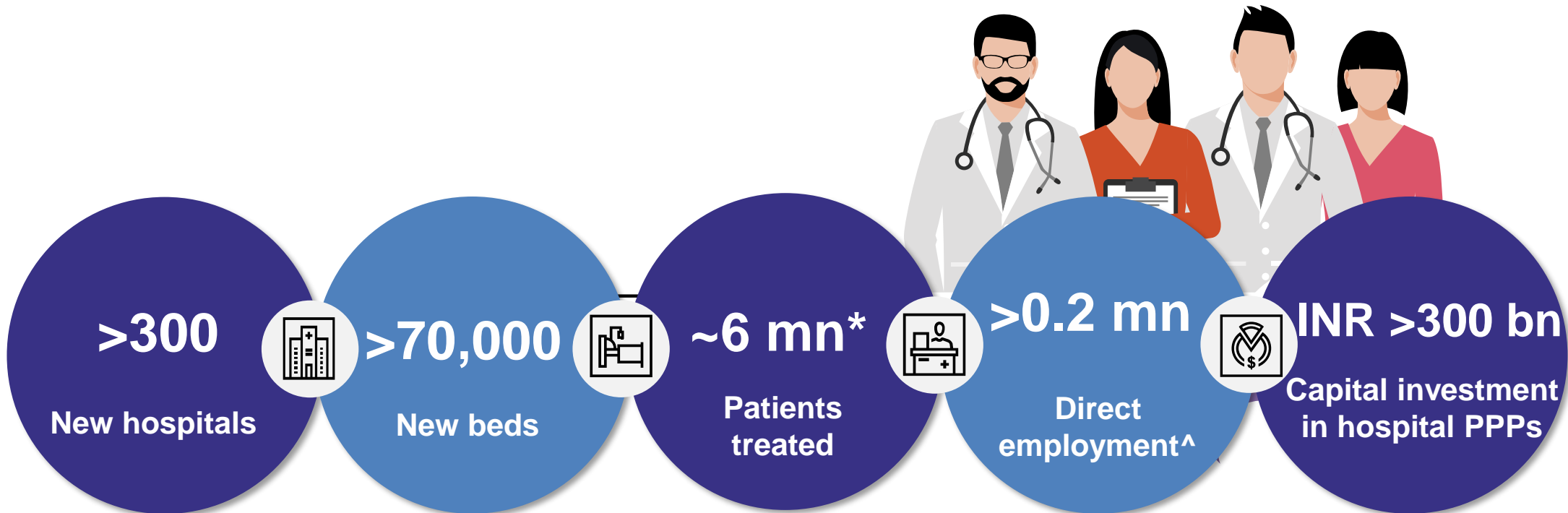


Improved utilization of infrastructure and clinical resources



Rapid deployment of projects

Successful PPPs can have a significant impact on patient outcomes leading to overall increase in goodwill for the government

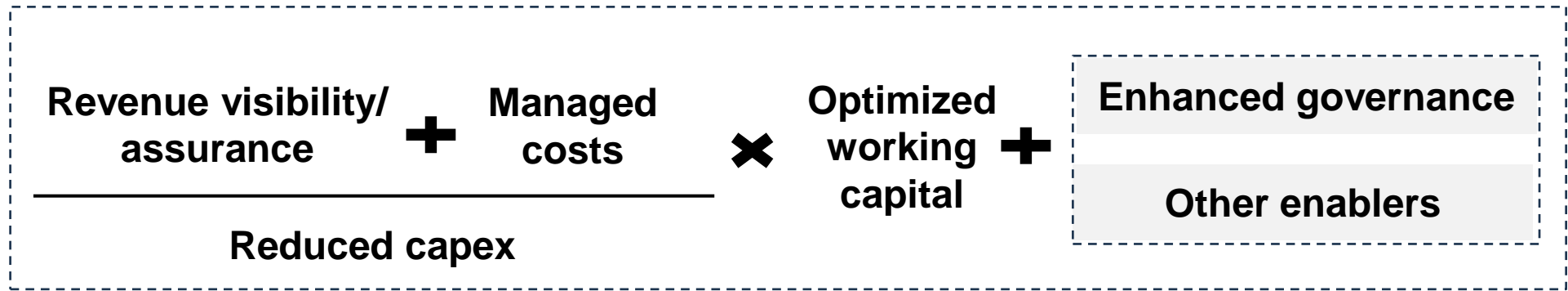


Successful PPPs provide an opportunity to treat a larger pool of patients in new geographies beyond metros

Note: \*Does not include OP, ^does not include indirect employment

...creating a 'win-win' for all

## PPP Equation



**Excited  
Operators/  
Investors**



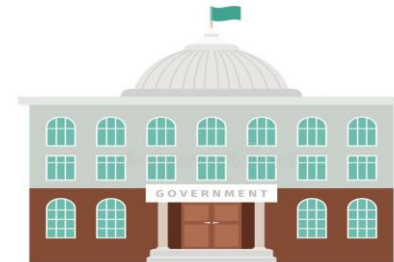
*Continuous  
investments*

**Cured  
Patient**



*Improved Outcomes  
and Experience*

**Energized Govt/  
Policy Makers**



*Revitalized  
PPP policies*

## PPP Cycle

## Glossary (1/2)

AB-PMJAY/ PMJAY	Ayushman Bharat Pradhan Mantri Jan Arogya Yojana
ACO	Accountable Care Organizations
ADB	Asian Development Bank
AHEL	Apollo Hospitals Enterprise Limited
AMC	Annual maintenance contract
ARPOB	Average Revenue per Occupied bed
ARPP	Average Revenue Per Procedure
AYUSH	Ayurveda, Yoga and Naturopathy, Unani, Siddha and Homeopathy
BMC	Brihanmumbai Municipal Corporation
Bn	Billion
BPL	Below Poverty Line
CAGR	Compounded Annual Growth Rate
Capex	Capital expenditure
CEO	Chief Executive Officer
CGHS	Central Government Health Scheme
CHC	Community Health centres
CMC	Comprehensive maintenance contract
CMS	Centers for Medicare & Medical Services
CT	Computed tomography
DBFOT	Design Build Finance, Operate and Transfer

DD	Demand draft
DH	District Hospital
EPC	Engineering, procurement, and construction
FMCG	Fast Moving Consumer Goods
FY	Financial year
GDP	Gross Domestic product
GOI	Government Of India
GOP	Government Of Punjab
Govt	Government
GW	gigawatt
HEC	Heavy Engineering Corporation
ICU / e-ICU	Intensive Care Unit / Electronic Intensive Care Unit
IFC	International Finance Corporation
IMC Act	Indian Medical Council Act
INR	Indian Rupees
IT	Information Technology
JNSSM	Jawaharlal Nehru National Solar Mission
K	One Thousand
KPI	Key Performance Indicator
Lab	Laboratory

## Glossary (2/2)

MEP	Mechanical, electrical and plumbing
Mn	Million
MOHFW	Ministry of Health and Family Welfare
MRI	Magnetic resonance imaging
NA	Not available
NABH	National Accreditation Board for Hospitals & Healthcare Providers
NIP	National Infrastructure Pipeline
# , No	Number
NPV	Net present value
NTR	
O&M	Operations & Management
OM & T	Operate-Manage-Transfer
OPDs	Outpatient Department
Opex	Operational expenditure
%	Percentage
PG	Postgraduate
PHC	Primary Health centre
PMC	Pune Municipal Corporation
PPP	Public Private Partnership

PSU	Public Sector Undertakings
PSU	Public Sector Undertakings
PV	Photovoltaic cell
Radio	Radiology
RFP	Request for proposal
ROI	Return on Investment
SLA	Service-Level Agreement
sq ft	square foot
TPA	Third Party Administrator
Ts-iPASS	Telangana State Industrial Project Approval and Self-Certification System
UG	Undergraduate
USA	United States of America
USD	United States Dollars
UTs	Union Territories
VGF	Viability Gap Funding
w.r.t	With respect to
Y-O-Y	Year-over-year

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#### About NATHEALTH

NATHEALTH has been created with the vision to “Be the credible and unified voice in improving access and quality of healthcare”. Leading healthcare service providers, medical technology providers (devices & equipment), diagnostic service providers, health insurance companies, health education institutions, healthcare publishers and other stakeholders have come together to build it as a common platform to power the next wave of progress in Indian healthcare. NATHEALTH is an inclusive institution that has representation of small & medium hospitals and nursing homes. It is committed to working on its mission to encourage innovation, help bridge the skill and capacity gap, help shape policy & regulations and enable the environment to fund long term growth. NATHEALTH aims to help build a better and healthier future for both rural and urban India.

## Key considerations for a greenfield hospital project for government scheme patients in Tier 2/ 3 cities

	Key Assumptions	Case 1 - 100 beds – tier 3	Case 2 - 300 beds – tier 2
Revenue	ARPP – Surgical (per case)	15,275	15,275
	ARPP – Medical (per day)	2,700	2,700
Operational costs	No. of full time consultants	12	41
	Average salary - Consultants	INR 3.5 Lakhs per month	INR 4 Lakhs per month
	Material costs (% of revenue)	26%	28% in Y1, 25% in Y10

### Other common assumptions

- ARPPs for other schemes calculated basis dashboards from government websites
- Payor mix – **100% Govt scheme** patients
- ARPP escalated **at 3.5% Y-o-Y**
- Staff salaries escalated **at 7.5% Y-o-Y**
- Other hospital staff salaries calculated as per industry standards
- Other expenses such as electricity, printing, communication and miscellaneous calculated as per industry standards
- Debt/ Equity ratio taken as 70:30



## What it takes to run a hospital ? – Average realizations and operational expenses for multispecialty hospitals offering tertiary care/ high secondary care in a Tier 2/3 city

Cost head	Case 1 - 100 beds – tier 3		Case 2 - 300 beds – tier 2	
	Per day bed cost (INR)	% Share	Per day bed cost (INR)	% Share
Material cost	1,700	16%	1,900	16%
Manpower cost	6,300	59%	6,700	58%
SG&A	810	2%	220	2%
Repair and maintenance	370	3%	470	4%
Electricity	260	8%	770	7%
Miscellaneous	270	3%	270	2%
Depreciation	1080	10%	1,280	11%
<b>Total operational cost per bed per day at year 4 (85% occupancy)</b>	<b>10,790</b>	<b>100%</b>	<b>11,610</b>	<b>100%</b>
<b>Interest of term loan</b>	<b>1,440</b>		<b>2,040</b>	
<b>Return on equity</b>	<b>1,010</b>		<b>1,180</b>	
<b>Total operational cost per bed per day at year 4 (85% occupancy) – with financial costs</b>	<b>13,240</b>		<b>14,830</b>	

Note: Above cost structure for hospital with PMJAY scheme patients, SG&A include security, housekeeping, printing, stationary, food, communication and others  
Source: Inputs from Quadria Capital and Regency Hospital