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Ayushman Bharat

Improvement in quality of government infrastructure and leveraging private sector at right price to be crucial tasks for the scheme

CRISIL Opinion July 5, 2018

Spearheading National Health Policy, 2017

The Union Budget for fiscal 2019 heralded two major initiatives in the health sector under the Ayushman Bharat National Health Protection Scheme, in line with the goal of offering the highest possible level of health and well-being for all, at all ages, as envisaged in the National Health Policy, 2017.

First, the government committed Rs 1,200 crore for strengthening the existing physical health infrastructure for primary and secondary care through upgrading the health and wellness centres.

Second, to expand the coverage of secondary and tertiary care services, it announced the National Health Protection Scheme to cover over 50 crore poor and vulnerable beneficiaries (approximately 10 crore families) by providing coverage up to Rs 5 lakh per family per year.

Ayushman Bharat overview

Objective 1	**Strengthening of physical health infrastructure: sub-centres**
Initiative	Health and wellness centre
Targeted healthcare need	Primary care
Comparable existing infrastructure	Sub-centres (SCs) and primary health centres (PHCs)
Current status	1.6 lakh SCs and 30,568 PHCs (as of June 2018)
Ayushman Bharat programme	To upgrade 1.5 lakh centres with comprehensive health care, including for non-communicable diseases and maternal and child health services. These will also provide free essential drugs and diagnostic services
Funding	Budgetary allocation of Rs 1,200 crore plus contribution of private sector through CSR and philanthropic institutions in adopting these centres

Objective 2	**Strengthening of physical health infrastructure: government hospitals**
Initiative	Setting up of more government hospitals and medical colleges
Targeted healthcare need	Secondary and tertiary care
Comparable existing infrastructure	Existing government hospitals and AIIMS-like institutes
Current status	23,582 government hospitals having 7.1 lakh beds (as per National Health Profile, 2018)
Ayushman Bharat programme	To set up 24 new government medical colleges and hospitals by upgrading existing district hospitals
Funding	Rs 3,825 crore for Pradhan Mantri Swasthya Suraksha Yojana for FY19 (budgeted)

Objective 3	**Expansion of healthcare coverage**
Initiative	National Health Protection Scheme
Targeted healthcare need	Secondary and tertiary care
Comparable existing infrastructure	Rashtriya Swasthya Bima Yojana or other state health insurance schemes
Current status	States have adopted their own schemes through either trust model or insurance model
Ayushman Bharat programme	To cover over 50 crore poor and vulnerable beneficiaries (~10 crore families) by providing coverage up to Rs 5 lakh per family per year
Funding	Not specified

Source: Budget documents, Ministry of Finance, National Health Policy 2017, National Health Profile 2018, Committee approved documents available on Press Information Bureau, MIS of National Health Mission, CRISIL Research

CRISIL Research impact analysis

Objective	Impact
Objective 1: Strengthening of physical health infrastructure: Sub-centres	**Addition of new ailments a positive step towards increasing healthcare penetration**
	Emphasis on quality of services should also be addressed at the ground level
	Concrete steps to set standards for monitoring quality care necessary
Objective 2: Strengthening of physical health infrastructure: Government hospitals	**Emphasis on Pradhan Mantri Swasthya Suraksha Yojana a mammoth task – both financially and operationally**
	Attracting and/ or retaining experts and skilled professionals another major challenge
	Support of private sector needed for rapid expansion of secondary and tertiary care health services in the country
Objective 3: Expansion of healthcare coverage	**Pricing will play crucial role in attracting insurance companies and private hospitals**
	Premium of Rs 1,082 per family may not attract private insurers given that many families will come under social health coverage for the first time and may lead to higher claim ratio
	Insurance penetration to improve from the current 34% to over 50% on implementation
	Will change the way private sector hospitals function today – focus to shift to volume-driven affordable care
	Mechanism and vehicle for raising the resources required for the move will be a key monitorable

Source: CRISIL Research

Review of Objective 1

Upgrading existing sub-centres needs emphasis on quality improvement

Under existing healthcare infrastructure system, a health sub-centre is the most peripheral and first contact point between the primary health care system and the community. It is the lowest rung of a referral pyramid of health facilities consisting of the sub-centres, primary health centres, community health centres, sub-divisional/ sub-district hospitals and district hospitals.

Rural healthcare system in India

District hospital	Every district expected to have a district hospital
	Number of beds ranges from 101 to 500
	There are 1,192 active district hospitals in India (704 districts)
Sub-district hospital	Caters to about 5-6 lakh people
	Number of beds ranges from 31 to 100
	There are 2,306 active sub-district hospitals in India
Community health centre	4 public health centres included under each community health centre
	Typically has 30 beds
	There are 11,172 active community health centres in India
Primary health centre	Acts as a referral unit for 6 sub-centres and refers cases to community health centre
	Has 4-6 indoor beds for patients
	There are 30,568 active public health centres in India
Sub-centre	One sub-centre for every 5,000 population in plain areas (3,000 population in hilly/ tribal/ desert areas)
	Typically has 1-2 beds for delivery
	There are 161,358 active sub-centres in India

Note: Data as of June 2018

Source: National Health Mission document 2017, MIS of National Health Mission, Indian Public Health Standards for each type of facility, CRISIL Research

Notably, the new form of sub-centres – termed 'health and wellness centres' under Ayushman Bharat – is not significantly different. Hence, it is imperative to identify additional ailments that will be serviced in these centres. Fine print of the programme will provide more clarity on this aspect.

Comparison of present and planned infrastructure

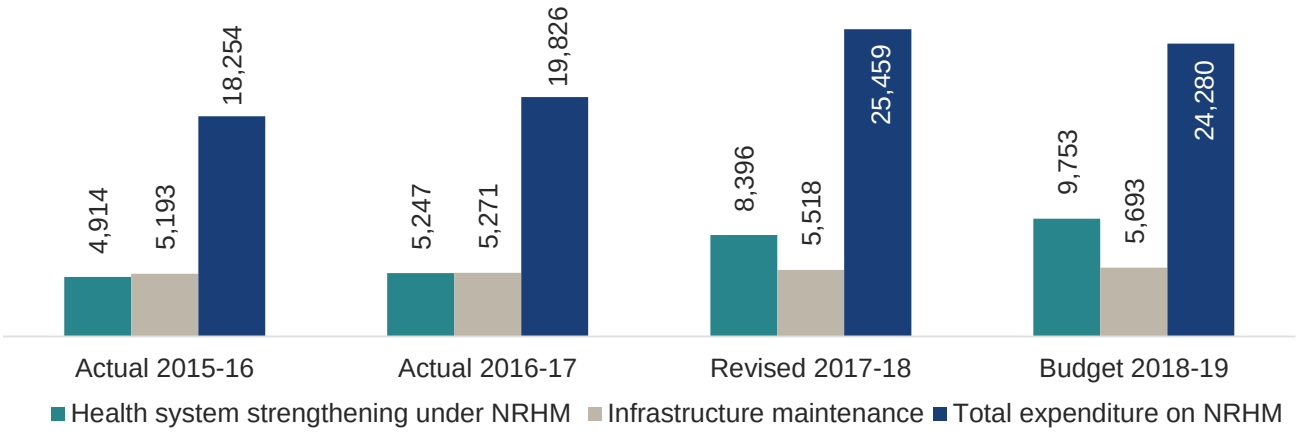
	Sub-centres (present structure)	Health and wellness centres (planned structure)	Impact
Basis of establishment	Population norms	Geographical norms	Realignment of existing structure in remote locations
Services covered	Curative	Preventive and curative	Inclusion of wellness and/ or preventive diagnosis
Touch base as primary care facility	Yes	Yes	
Facility for communicable diseases	Yes	Yes	
Facility for maternal and child health services	Yes (available in Type-B sub-centres)	Yes	**More clarity needed in terms of inclusion of additional facilities/ infrastructure**
Facility for non-communicable diseases	Limited (identification of problem, first aid and reference to primary health centre/ community health centre)	Yes	
Provision of free essential drugs	Yes (mainly under Janani Shishu Suraksha Karyakram)	Yes	
Availability of diagnostic services	Yes (limited to minimum laboratory investigations for delivery)	Yes	
Funding	National Rural Health Mission (NRHM)	NRHM + contribution of private sector through CSR and philanthropic institutions in adopting these centres	Emphasis on infrastructure maintenance and health system strengthening will continue

Source: National Health Mission document 2017, MIS of National Health Mission, Indian Public Health Standards for each type of facility, CRISIL Research

Under NRHM, the central government provides financial support to states to strengthen the public health system, including upgradation of existing and/ or construction of new infrastructure.

Recent years have seen an increase in budgetary expenditure on two key components of the scheme – 'infrastructure maintenance' and 'health system strengthening'.

Expenditure on NRHM



Note: Figures in Rs Crore

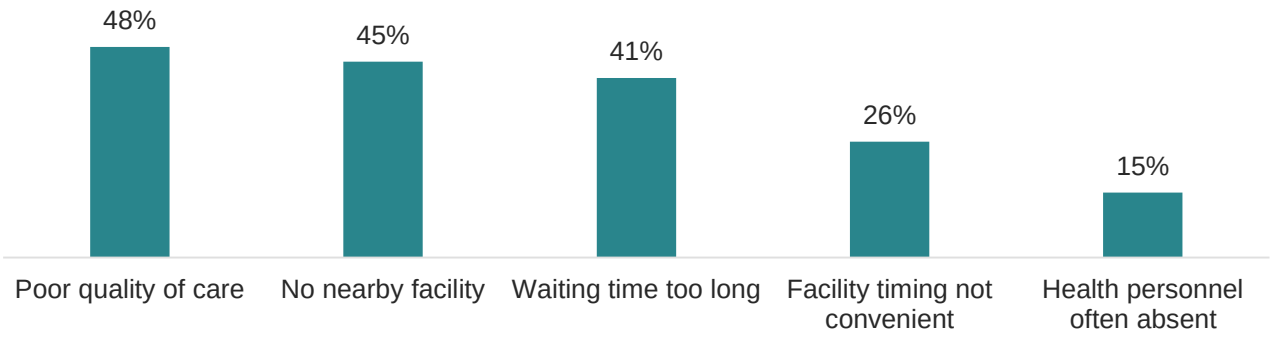
Source: National Health Mission document 2017, MIS of National Health Mission, Indian Public Health Standards for each type of facility, CRISIL Research

Actual outlay on these two components has increased 11% to Rs 15,446 crore for fiscal 2019 (budgeted) compared with Rs 13,914 crore the previous fiscal. It is likely that the announced allocation of Rs 1,200 crore is already accounted for in this fiscal's budget.

Despite sustained focus on core health infrastructure, around 55% of country's households do not use/ are not able to use government facilities.

This is mainly because of perceived poor quality of care – the National Family Health Survey for fiscal 2016 had revealed this was the primary reason for not using government facilities – and/or lack of availability of facilities nearby.

National Family Health Survey: Reasons for not using a government health facility



Source: National Family Health Survey (NFHS-4) – Data for 2015-16, Ministry of Health and Family Welfare

CRISIL Research believes that while addition of new ailments is a positive step towards increasing healthcare penetration, emphasis on quality of services should also be addressed at the ground level. These centres, at times, have inadequate physical infrastructure and/ or insufficient quantities of drugs to cater to patients' needs. Also, it is difficult to set standards for monitoring quality care. Concrete steps in this direction would be necessary**.**

Review of Objective 2

Setting up of more government hospitals and medical colleges has limitations – lack of interest of skilled professionals, high capex and long gestation

While secondary healthcare needs are mainly serviced through sub-district and district hospitals, the central government's focus on setting up AIIMS-like institutions and upgrading government medical institutions under the Pradhan Mantri Swasthya Suraksha Yojana (PMSSY) has given impetus to tertiary care hospitals as well.

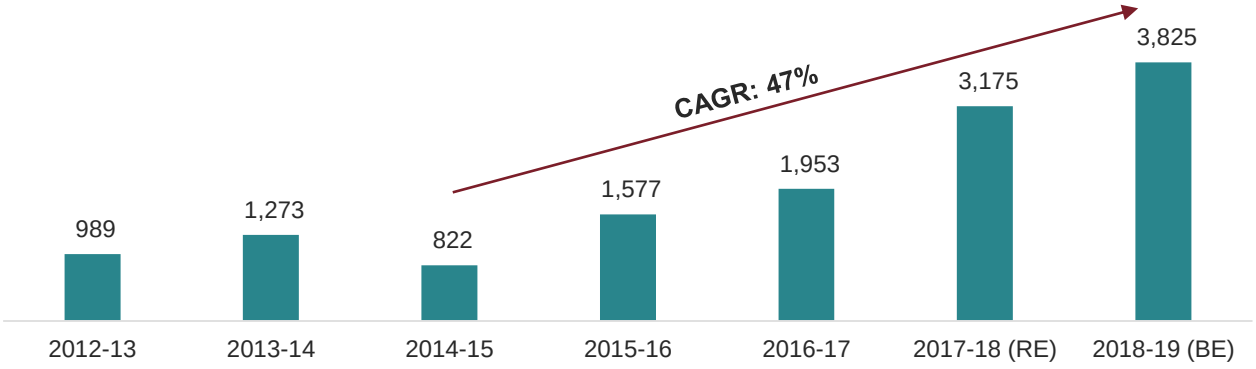
AIIMS-like institutions in India: budgetary announcements

Phase	Year of announcement in the budget	AIIMS-like institutions	Upgradation of state government medical colleges
Phase I	2006	Bhopal, Bhubaneshwar, Jodhpur, Patna, Raipur and Rishikesh	13 medical colleges
Phase II	2009	Rae Bareli (Uttar Pradesh)	6 medical colleges
Phase III	2013	No new AIIMS	39 medical colleges
Phase IV	2015	West Bengal, Andhra Pradesh, Maharashtra and Uttar Pradesh	13 medical colleges
Phase V	2016	Jammu & Kashmir (2 AIIMS), Punjab, Tamil Nadu, Himachal Pradesh, Assam, Bihar	NIL
Phase V (A)	2017	NIL	2 medical colleges
Phase VI	2018	Gujarat and Jharkhand	NIL
Total		**20 AIIMS**	**73 upgradation projects**

Source: Ministry of Health and Family Welfare, Lok Sabha, CRISIL Research

While there are 23,582 government hospitals having 710,761 beds in India, tertiary healthcare government facilities such as AIIMS-like institutions are limited. AIIMS Delhi has more than 2,000 beds (including newly constructed emergency wards & trauma centre) and six newly formed AIIMSs (Bhopal, Bhubaneshwar, Jodhpur, Patna, Raipur and Rishikesh) have operational capacity of 2,744 beds. However, as per Ministry of Health And Family Welfare, almost 60% faculty posts and 80% non-faculty posts in these six AIIMS-like institutes remained vacant as of February this year.

Allocation to Pradhan Mantri Swasthya Suraksha Yojana



Note: Figures in Rs Crore

Source: Budget documents

In addition, 14 new AIIMS-like institutes are under various stages of approval/ construction, with most likely to be completed only after 2020. Once operational, the combined capacity of all AIIMS-like institutes will be more than 21,000 beds. Over the past four years, the central government has already spent Rs 7,527 crore (fiscals 2015 to 2018) on the scheme (PMSSY) and has budgeted Rs 3,825 crore for fiscal 2019. Robust CAGR of 47% in expenditure on the scheme clearly hints at central government's emphasis on tertiary care infrastructure.

CRISIL Research believes that with the given capital outlay and execution time per institute, it's a mammoth task both financially as well as operationally to emphasise on Pradhan Mantri Swasthya Suraksha Yojana. Besides this, once such facilities are operational, attracting and/ or retaining experts and skilled professionals is another major challenge. The government will definitely need support of private sector in rapidly expanding secondary and tertiary care health services in the country.

Review of Objective 3

Pricing will play a crucial role in attracting insurance companies as well as private hospitals

Current government healthcare schemes include the Central Government Health Scheme (CGHS), the Employees' State Insurance Scheme (ESIS) and the Rashtriya Swasthya Bima Yojana (RSBY).

While CGHS (which covers serving/ retired central government employees and their families) and ESIS (which covers employees in the factories or establishments) are self-funding schemes, involving contribution from beneficiaries, RSBY is a sponsored scheme (premium cost shared between centre and States) aimed at individuals below poverty lines and other categories.

Then, there are the health insurance schemes of many states, which typically provide coverage of Rs 1-2 lakh.

All these schemes have varied criteria for selecting beneficiaries (families below poverty line and/ or above poverty line and/ or coverage of special category individuals).

The National Health Protection Scheme (NHPS) will subsume the ongoing centrally sponsored scheme RSBY and most existing state sponsored schemes. As of June 14, 2018, 20 states have signed the memorandum of understanding for Ayushman Bharat. Though several stakeholders/ associations had recommended a trust-based model of implementation at country level, the central government has left this choice with individual states.

Comparison of major government healthcare schemes

	Central government health scheme
Covers	Serving/ retired central government employees and their families
Membership charges to beneficiaries	Ranges between Rs 250 and Rs 1,000 per month depending on the Grade pay
Coverage	Up to Rs 5 lakh; above Rs 5 lakh in consultation with internal finance division
Cap on treatment cost	Fixed package rates as defined under CGHS
Choice of hospitalisation	Public and empanelled private hospitals

	Employees' State Insurance Scheme
Covers	Employees in factories or establishments
Membership charges to beneficiaries	1.75% and 4.75% of the wages as employee's and employer's contribution, respectively (for wages up to Rs 21,000 per month)
Coverage	No ceiling on expenditure on treatment
Cap on treatment cost	No ceiling on expenditure on treatment
Choice of hospitalisation	Mainly ESI hospitals

	Rashtriya Swasthya Bima Yojana
Covers	Families below poverty line plus other categories^
Membership charges to beneficiaries	Rs 30 (as registration fee)
Coverage	Up to Rs 30,000
Cap on treatment cost	Fixed package rates as defined under RSBY
Choice of hospitalisation	Public and empanelled private hospitals

Note: ^Other categories include MGNREGA, Building and Other Construction Worker (BOC), Domestic Workers, Street Vendors, Beedi Worker, Auto Rickshaw Pullerskshaw Drivers & Taxi Driver, Sanitation Workers, Rag Pickers, Rickshaw Pullers, Mine Workers and Railway Porters

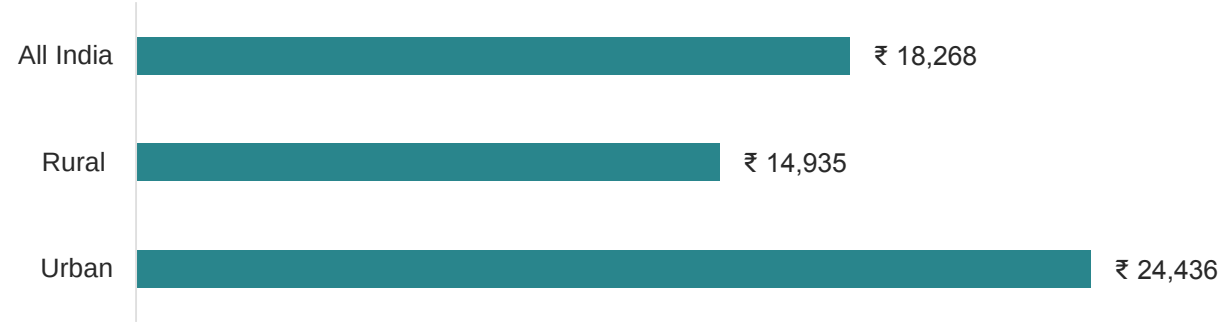
Source: National Health Profile 2018, CGHS, ESIS and RSBY reports and documents

In terms of number of beneficiaries covered, CGHS (31 lakh for fiscal 2017) and RSBY (3.63 crore families for fiscal 2017) are not comparable to NHPS (50 crore planned). Also, though not directly comparable, ESIS (12.4 crore for fiscal 2017) gives us an indicator on funding requirements for such a mammoth scale of operation.

According to the National Health Profile, 2018, per capita scheme expenditure for ESIS for fiscal 2017 was Rs 505, which translates into per family (assuming 5 members) scheme expenditure of Rs 2,525. As most treatments/ procedures under ESIS are carried out in ESI hospitals, leveraging private sector infrastructure may require higher per capita expenditure.

Another crucial aspect to take into account for premium calculation is the finding of NSSO-2014 survey, where average total medical expenditure for treatment per hospitalisation case was reported to be around Rs 15,000 in rural areas and Rs 24,500 in urban areas.

Average expenditure for treatment per hospitalisation case



Note: All such hospitalisation cases are excluding childbirth

Source: NSSO Survey 2014

Though the scale of coverage plays a crucial role in deciding the overall per capita premium, the NHPS target rate of Rs 1,082 per family for a medical cover of up to Rs 5 lakh (which translates into a premium of Rs 216 per capita) looks very low, especially considering the involvement of private insurance companies having profit motive. In addition, selection of a trust-based model by a few major states (in terms of population) may lower the scale of calculation for insurance companies.

The net incurred claim ratio (ICR) for government-sponsored schemes including RSBY has remained above 108% (for health insurance business) for the past three years. While public insurance companies have witnessed ICR above 110% for the past three years, most private insurers have maintained ICR below 85% for overall health insurance business. Consequently, scheme's recommendation on refunding excess premium if claim ratio is below 85% is another concern for insurance companies.

In anticipation of participation of private insurers as well in the scheme, we have assumed ICR of 85% for the sensitivity analysis. Also, we have assumed hospitalisation ratio at 7.5% families (which is higher than the typical ratio witnessed by insurers in health business) as many families will come under social health coverage for the first time, and that too at high insurance coverage. In our base case scenario, the national average premium (with an

average claim of Rs 20,000 per family) comes to Rs 1,765 per family, which is 63% higher than the NHPS-recommended premium rate.

Sensitivity on premium calculation (assuming incurred claim ratio at 85%)

Premium per family (Rs)		Amount of claim per family (Rs)				
Hospitalisation ratio (Total hospitalisation availed divided by total enrolled families)		5,000	10,000	15,000	20,000	25,000
	5.0%	294	588	882	1,176	1,471
	7.5%	441	882	1,324	**1,765**	2,206
	10.0%	588	1,176	1,765	2,353	2,941
	12.5%	735	1,471	2,206	2,941	3,676
	15.0%	882	1,765	2,647	3,529	4,412
	17.5%	1,029	2,059	3,088	4,118	5,147
	20.0%	1,176	2,353	3,529	4,706	5,882

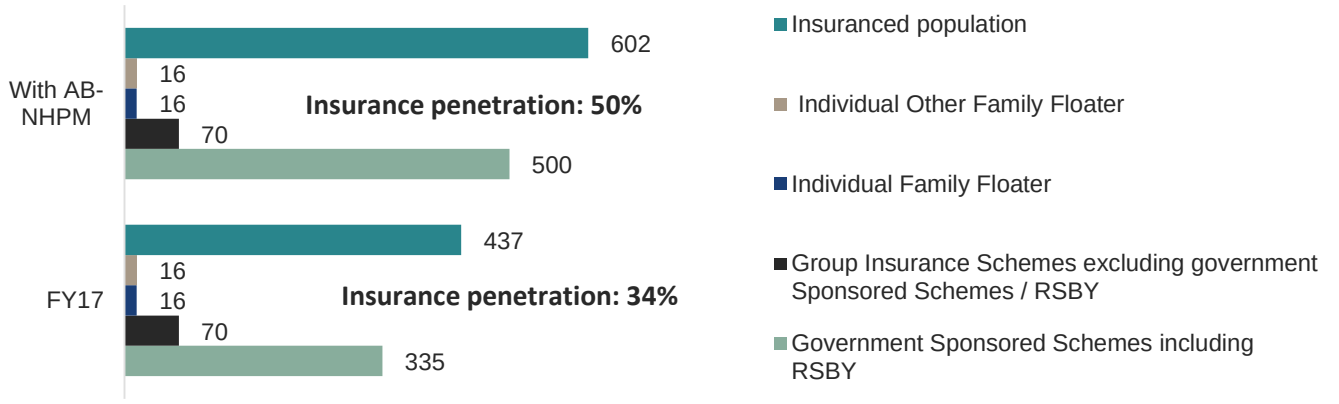
Note: Assuming base coverage of 10 crore families; base case scenario highlighted in yellow

Source: CRISIL Research

As of fiscal 2017, nearly 43.8 crore persons were covered under various health insurance schemes, including 33.5 crore under government-sponsored ones including RSBY. With the new scheme, the coverage will increase to more than 60 crore persons.

CRISIL believes the latest thrust to affordable and quality healthcare for all, especially the economically disadvantaged citizens, is well-intended and will boost insurance penetration from the current 34% to more than 50% on implementation. The actual penetration may differ based on overlapping coverage of below poverty line (base criteria for RSBY and most state schemes) and Socio-Economic Caste Census (which is the base criteria for NHPS).

Number of persons covered under various policies (in million)



Source: IRDAI Annual report FY17, CRISIL Research

Insurance companies are closely monitoring the development around final premium in order to ensure viability. However, private hospitals have already voiced their concerns over low package rates for treatment proposed under

the scheme. For example, the package rate for caesarean delivery procedure under NHPS is Rs 9,000, while the package rate is around Rs 18,000 under CGHS and RSBY. On the other hand, private hospitals charge anywhere between Rs 20,000 and Rs 1 lakh for the procedure.

Another aspect is fraud monitoring. Under RSBY, several instances of recommendation of unnecessary procedures/ tests by private hospitals were reported. Stricter due diligence in both government as well as empanelled private hospital will help reduce such cases.

On a related note, emergence of new business models augurs well for the sector and beneficiaries, as it will lead to expansion of healthcare coverage.

For instance, while major hospital players have been focusing on quality of care through a team of expert doctors and augmenting infrastructure, a set of hospital chains have emerged in Tier II and Tier III cities, which focus on affordable treatment by focusing on patients covered under various healthcare schemes of the centre or states. This is a volume-driven approach supported by increasing focus of government on universal health coverage.

The mechanism and vehicle for raising the resources required will be a key monitorable. The National Health Mission has seen cumulative expenditure of Rs 53,256 crore in the last two fiscals and the government has already allocated budgetary support of Rs 30,130 crore for fiscal 2019. With the implementation of NHPS, the central government will need at least Rs 6,500 crore per year on premium payment (assuming NHPS recommended premium of Rs 1,082 per family at 60% centre's share). RSBY outlay, however, will reduce accordingly.

Ayushman Bharat: likely impact on the healthcare ecosystem

Stakeholder	Aspect	Likely impact
Beneficiary	Health needs	Opens up private sector infrastructure and higher health cover (up to Rs 5 Lakh per family)
		Country's health indicators to improve over long term
Insurers	Industry growth	Hugh potential for insurers, however, at viable premium rate
	Scale of operation	With several major states opting for trust based model, risk calculation will be challenging (to ensure low premium)
	Reach	Will lead to substantial increase in health insurance penetration
Hospitals	Package rates	May limit participation of major corporate hospitals
	Industry structure	Will change the way industry functions today- focus to shift to volume driven affordable care
		Will support rapid growth of hospital chains in Tier II and Tier III cities
State government	Amalgamation of existing schemes	Change in coverage criteria (BPL vis-à-vis SECC) in existing schemes- may change funding needs

Source: CRISIL Research

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