Twitter Thread by Anish Moonka

Anish Moonka
@AnishA_Moonka

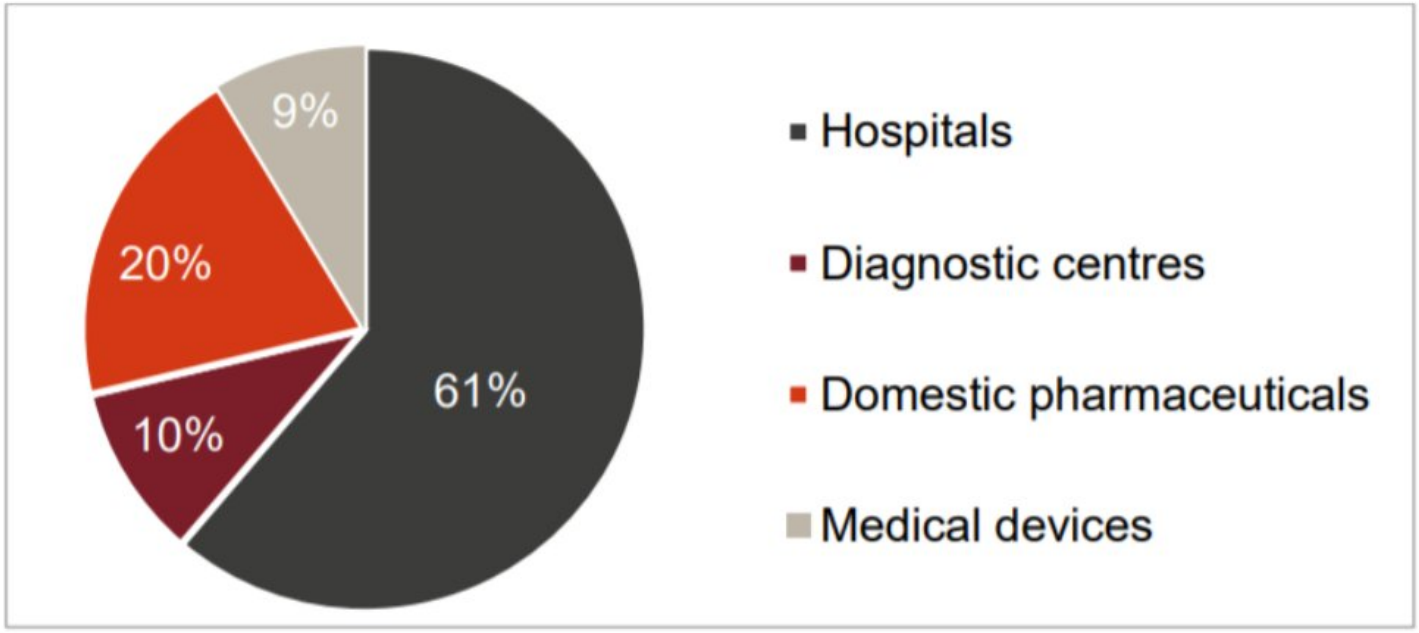
The Business Model of Indian Hospitals Simplified.

“We are blessed to be living in a country where the cost of healthcare is the lowest in the world.” ~Dr. Devi Shetty, Narayana Health

A thread ■■

1/ In the Indian healthcare delivery market; the pharmaceuticals market is 20% of the pie. While Hospitals market is 3x that of theirs.

Big opportunity size, however, is it investment-worthy? Let's see.



2/ Before we get into the details:

Do brush up on the different abbreviations associated with the Hospitals & the Pharmaceuticals industry in General, for example ALOS, ARPOB, NABH, etc.

Inpatient (IPD): Need to get hospitalized

Outpatient (OPD): No need to get hospitalized

Technical/Industry Related Terms or Abbreviations

Term	Description
Aarogyasri Scheme	YSR Aarogyasri scheme as implemented by the Andhra Pradesh Government and Aarogyasri scheme, as implemented by the State Government of Telangana
AE Act	Atomic Energy Act, 1962
AERB	Atomic Energy Regulatory Board
AHPI	Association of Healthcare Provides (India)
ALOS	Average of length of stay, which equals total length of stay divided by inpatients volume, excluding dialysis and chemotherapy stays and volumes
APMCE Act	Andhra Pradesh Allopathic Private Medical Care Establishments (Registration and Regulation) Act, 2002
APMCE Rules	Andhra Pradesh Allopathic Private Medical Care Establishments (Registration and Regulation) Rules, 2007
ARPOB	Average Revenue Per Operating Bed, which equals revenue divided by the total length of stay days
BMW Rules	Bio-Medical Waste Management Rules, 2016
CCTV	Closed-circuit television
CGHS	Central Government Health Scheme
CII	Confederation of Indian Industry
Clinical Trials Rules	New Drugs and Clinical Trials Rules, 2019
CT	Computed tomography
DNB	Diplomate of National Board
DISHA	Draft Digital Information Security in Healthcare Act
DPCO 2013	Drug (Prices Control) Order, 2013
Drugs Act	Drugs and Cosmetics Act, 1940
Drugs Rules	Drugs and Cosmetics Rules, 1945
EBITDA	EBITDA is calculated as restated profit/(loss) for the year, plus total tax expenses, exceptional items, finance costs and depreciation and amortization expenses
EBITDA Margin	EBITDA Margin is the percentage of EBITDA divided by total income
EBUS	Endobronchial ultrasound
ECMO	Extra Corporeal Membrane Oxygenation
EHS	Employee Health Scheme
EP	Electrophysiology
ERCP	Endoscopic retrograde cholangiopancreatography
Ethics Regulations	Indian Medical Council (Professional Conduct, Etiquette and Ethics) Regulations, 2002
FFR	Fractional flow reserve
Green OT	Green Operation Theatre
HBM Guidelines	Guidelines for Exchange of Human Biological Material for Biomedical Research Purposes, 1997
HDR	High dose rate
ICMR	Indian Council of Medical Research

3/ The hospitals are of basically 3 types:

Primary: For OPD only (no beds), sends to below hospitals for further treatment

Secondary: IPD & OPD in medium-sized general hospitals

Tertiary: Can treat all complex ailments & huge in size, Major listed companies are focused here.

Classification of hospitals by facilities/ services offered

	Primary care	Secondary care	Tertiary care
Services	Provides all services as required for the first point of contact	Provides all services as required, including organised medical research	Provides all services as required, including provision for experimental therapeutic modalities and organised research in chosen specialities
Multi-disciplinary	Yes	Yes	Single- or multi-speciality
Type of service	Only medical services and excludes surgical services	Overall medical and surgical services	Complex surgical services with sophisticated equipment
Type of patient	Only outpatient	Inpatient and outpatient	Primarily inpatient
No of beds	0 beds	50-200 beds	>200 beds
Dependent on	Secondary and tertiary care hospitals for further diagnosis and support	Tertiary care hospital for diagnostic and therapeutic support on referral and for patient transfer	Tertiary care/secondary hospital for referrals for its workload
Investment	Low investment required	Medium	High

4/ Hospitals can also be classified based on Ownership & management:

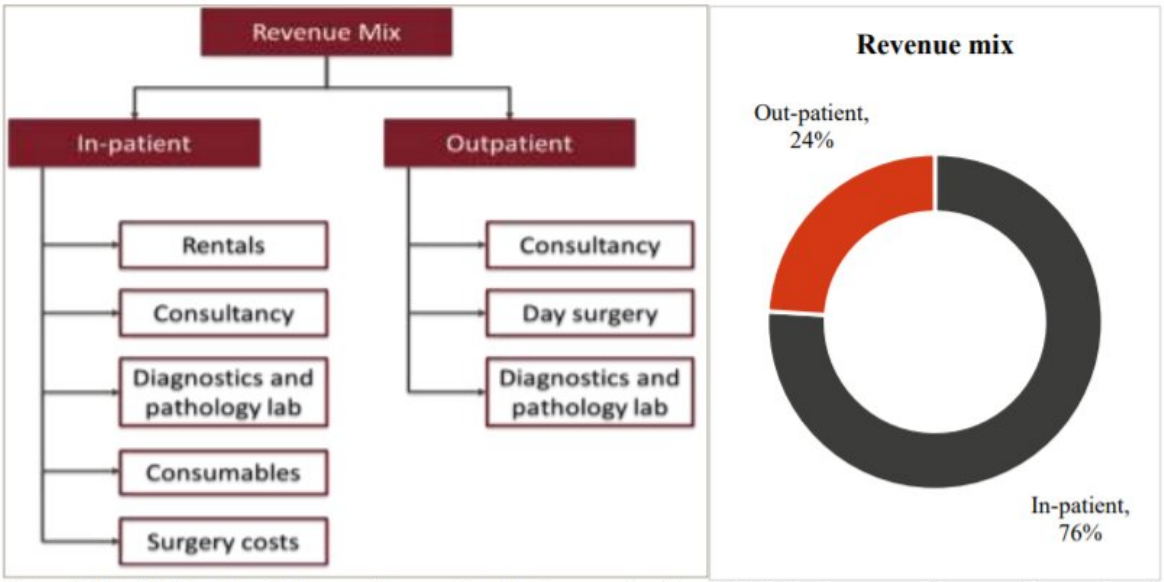
Here, the listed companies either are in private or manage hospitals owned by others (Asset light business, due to the very high land prices in metro cities)

Hospitals can also be classified based on their ownership and management:

Government	• Brihanmumbai Municipal Corporation hospitals, KEM Hospital, Cooper Hospital (Mumbai, Maharashtra)
Private	• Asian Heart Institute, Apollo Hospitals, Krishna Institue of Medical Sciences (KIMS), Fortis, Max Healthcare
Trust	• Lilavati (Mumbai, Maharashtra), Hinduja (Mumbai, Maharashtra)
Trust owned, but managed by a private party	• Two operational models are followed by trusts and private parties: • **Medical service agreement** - Max Super Speciality Hospital, Patparganj, National Capital Territory of Delhi • **Operation and management contract** - Balabhai Nanavati Hospital in Mumbai, Maharashtra; Apollo Hospital in Ahmedabad, Gujarat is owned by a trust but managed by the Apollo Group
Owned by one private player, managed by another	• East Coast Hospital in Puducherry was earlier managed by Fortis Healthcare

5/ In a normal hospital, The IPD accounts for only 25% of the total volume, however, in value terms is near 76% of rev (Getting hospitalized is expensive!)

This ratio can vary b/w different hospitals depending on the therapies they cater to.

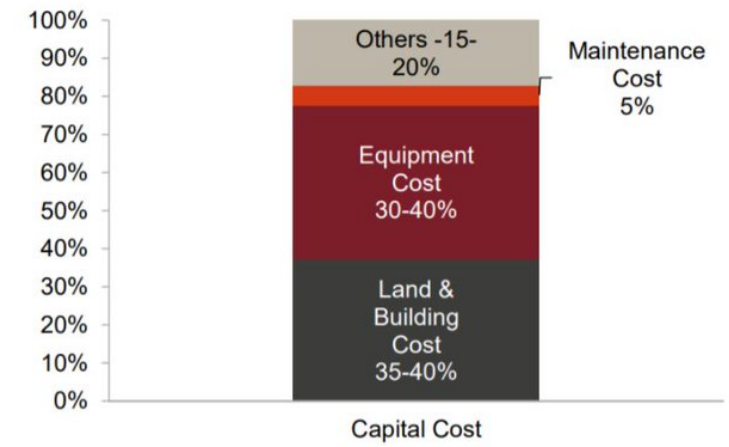


Notes: 1) The IPD in a hospital generally consists of beds, operation theatre(s), intensive care unit, supportive services (such as nursing services, pharmaceutical services, laboratory and diagnostics centres) and central sterile and supply department (CSSD)
2) In the OPD, examination, diagnostics and day surgeries are included
Source: CRISIL Research

6/ Capital costs: Huge (Gestation period: 7-10 years)

A single bed in a metro city for most listed cos. costs 50 lakhs-1crore/bed

Note that 65-75% of these costs are one-time (Land & Equipment) & expansions in already established hospitals are cheaper at 25-30 lakhs/bed.



Capital cost / bed (excluding land cost)	Secondary care hospital	Tertiary/Quaternary care hospital
Tier - I	Rs 5-8 million	Rs 10 million+
Tier – II	Rs 2.5–5 million	Rs 5-8 million
Tier - III	Rs 1-2.5 million	Rs 2.5-5 million

Source: CRISIL Research

7/ Operational costs: Humongous.

Hospitals are open 24x7 no matter if they have patients on not; they should be there staffed & ready to go in case somebody

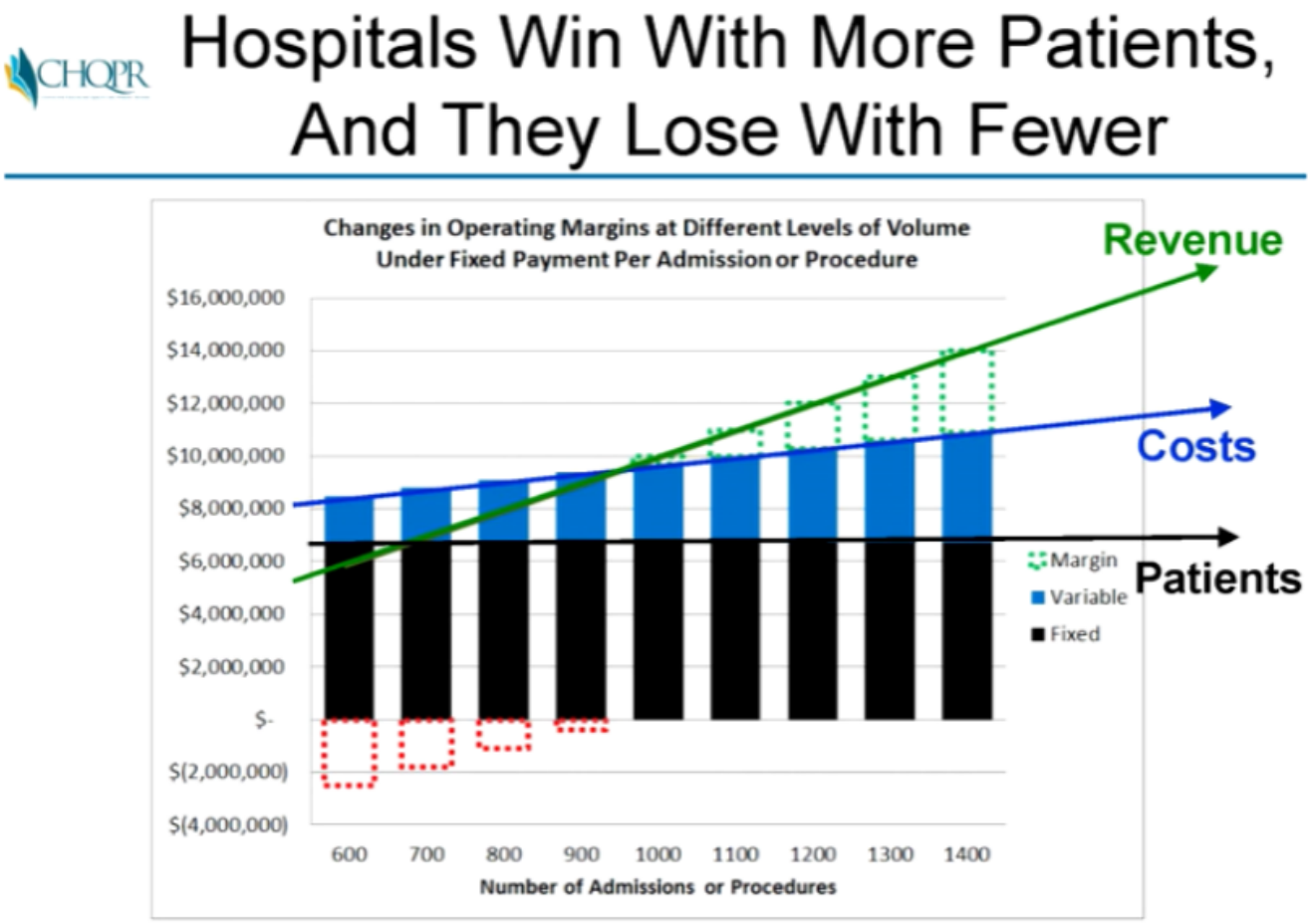
needs them: An accident or a pandemic.

This leads to Huge Fixed costs: does not matter how many patients they have.

8/ Thus, Hospitals are a play on Operating leverage due to such high fixed costs.

All about more patients, more so from higher value therapies like Neuro, renal & IPD (getting more hospitalized)

Keeping a hospital profitable is tough: One has to be a brand in its locality.



9/ Technology continues to be a major disruptor in healthcare services today.

Are Equipment Investments a constant? Mostly yes. leading to consistent maintenance capex

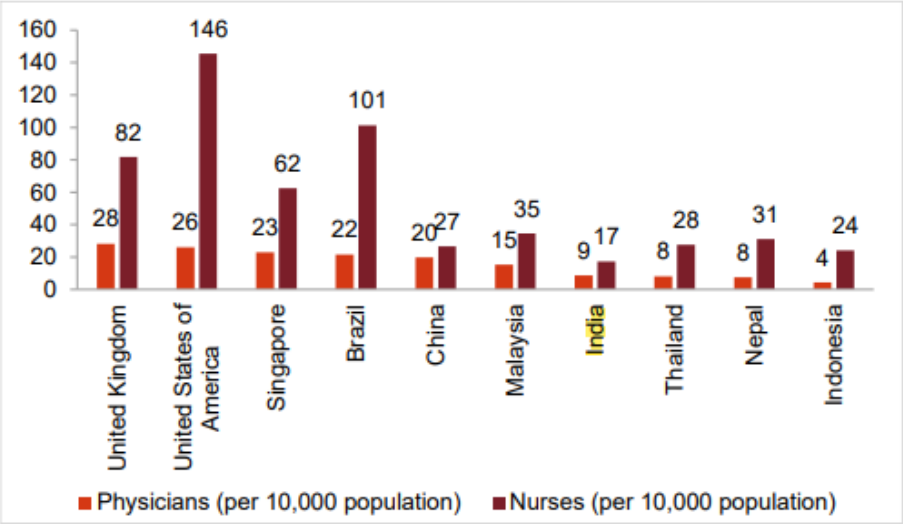
Da Vinci robotic surgical system
128 Slice CT scanner
Digital LINAC Accelerator...

10/ What's the differentiating factor?

Intellectual Capital: Full-time Doctors, Consultants, Student doctors & the support staff

Big Shortage of Specialists in India (seats are much less than required in medical colleges); most prefer to stay in cities.

Healthcare personnel: India vs other countries



The paucity of healthcare personnel compounds the problem. At nine physicians and 17 nursing personnel per 10,000 population, India trails the global median of 16 physicians and 38 nursing personnel. Even on this parameter, India lags developing countries such as Brazil (22 physicians, 101 nurses), Malaysia (15 physicians, 35 nurses) and other South East Asian countries.

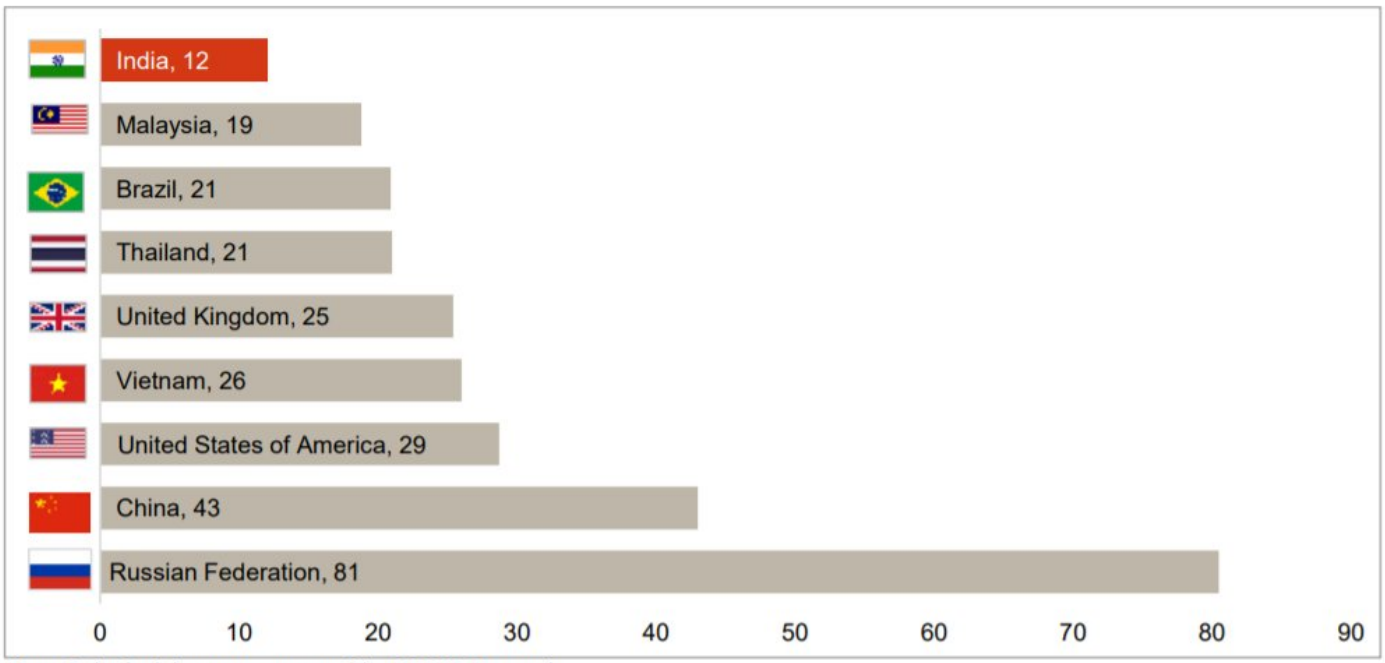
Source: WHO World Health Statistics 2020

11/ Even though beds are nowhere near what ■■ requires, affordability is the issue.

Over 60% of the expenses are from out of pocket, even for others government & private insurers: they continue to squeeze hospitals for lower costs.

Even health insurance premiums are very high.

Bed densities across countries - hospital beds (per 10,000 population)



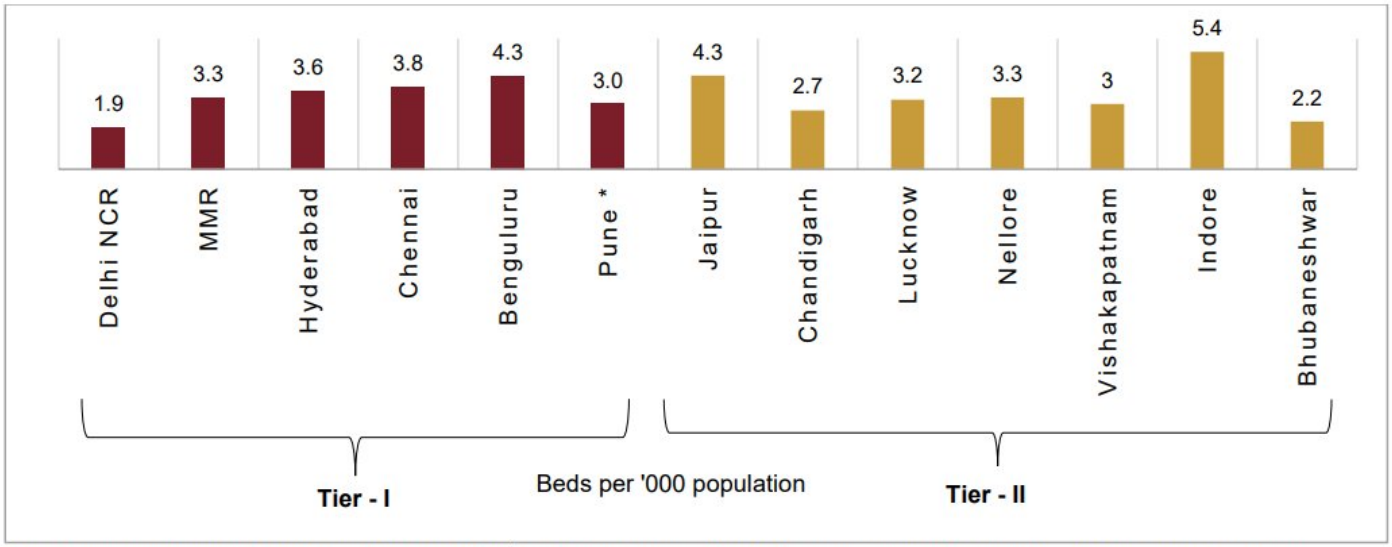
Note: India bed density is estimated by CRISIL Research
Source: Tracking Universal Health Coverage: 2017 Global Monitoring Report, World Bank Database, CRISIL Research

12/ Additionally, most tertiary hospitals are only present in top cities.

People travel Intra & inter-state; putting a huge burden on these assets.

One of the big reasons most lost money in FY21: due to COVID travelling restrictions.

Estimated bed density across key tier – I & II cities in India

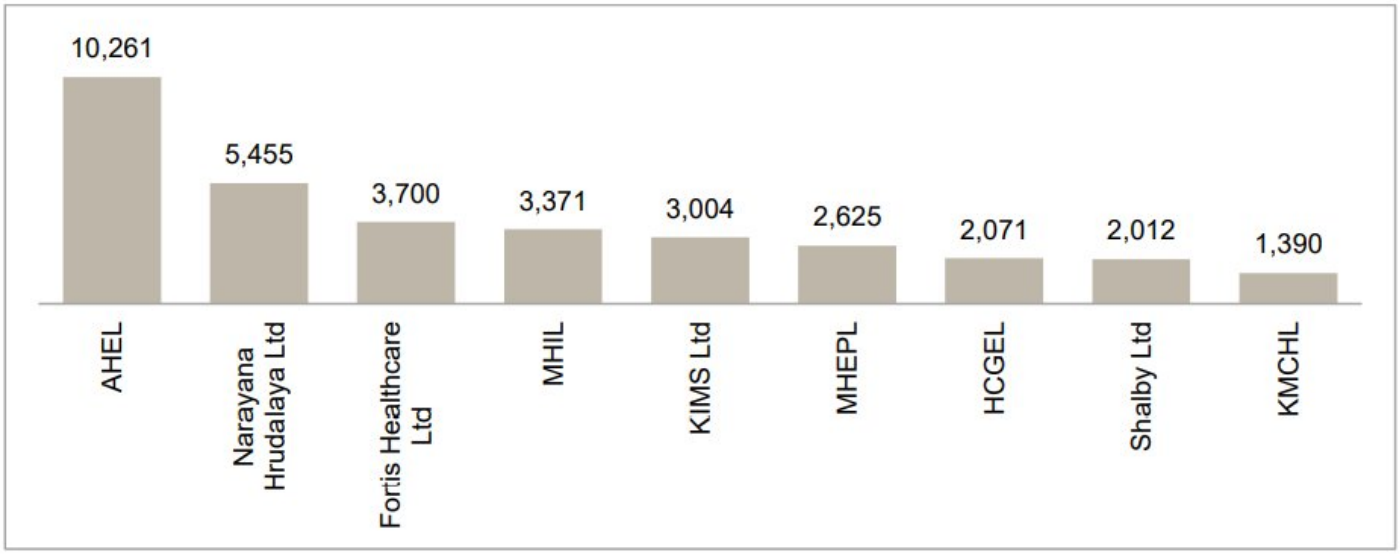


Based on city category classification followed by 7th Pay Commission, Tier I – X cities (top 8 cities), tier II – Y cities (next 88 cities)
** Pune metropolitan region*
Source: CRISIL Research

13/ There are approximately 15 lakh beds in India.

The largest player (Apollo) is not even 1% of the industry; Huge competition.

High fragmentation & very low profitability (max 12-14% ROCEs) indicates Industry needs massive consolidation before it gets attractive.



14/ Another big risk is Government intervention

By way of an active regulatory regime, be it in terms of price control or capping of margins on medicines and implants has been stepped up.

State and Central Healthcare coverage schemes are also impacting industry margins.

15/ Positives:

Pricing power to some extent due to the granularity of the customers & loyalty/Trust that they too most doctors.

However, can get affected by hyper-competition locally. Even Narayana Health had to close one of its hospitals in Bangalore.
https://t.co/fbJvO825wr

> A retail store where the owner decides what you have to buy and how much you need to spend is a good investment \U0001f44c
>
> — Conviction | Patience (@unseenvalue) June 18, 2021

16/ Larger hospital brands typically have the

Stronger financial discipline
Negotiating power with suppliers
Better ability to attract medical talent
Greater capital and administrative resources

Vs standalone hospitals

Inorganic way is expected to be the next leg of growth.

17/ What to look for in Hospitals?

ALOS is decreasing (efficiency)
ARPOB is increasing (complex therapies■)
Majority of greenfield capex over; more of brownfield going forward & potential higher utilization
Low competition; location check
Adjacencies like diagnostics & Pharmacy

18/ Game of Economies of Scale as the demand is perpetual & still much of India's demand is unmet

“I left England in 1989 and the first patient I did the bypass grafting in Calcutta paid 1.5lk Rs
30 yrs later, we are doing the same operation for less than 1lk.” ~Dr. Devi Shetty

19/ Current scenario:

Hospitals' non-covid sales are just back to pre-covid levels & it looks amazing optically due to the subdued FY21 sales.

Most of the people who deferred elective surgeries due to COVID risk are back; not much has changed on the structural front.

20/ Also, Inter-State travel & Foreign travel (aka. Medical Tourism) will give a boost to sales of most hospitals as they start again gradually.

All of this will be a temporary jump & FY23 might show a more normal year as growth will slow down.

21/ Finally, If a healthcare solution is not affordable, it’s not a solution.

It's a long way to go for this to become a sustainable business; 6-8cr people go below the poverty line every year while paying their healthcare bills. Even after decades of independence, It's sad.

22/ We continue to believe in the entrepreneurs & doctors (current & future) of ■■

Nevertheless, The logic stops us from allocating a lot into this industry due to the multiple challenges mentioned above.

Don't overpay: Most private deals happen at 10-15x EV/EBITDA.

End.

If you found the thread to be of help, please retweet the 1st tweet ■ to help us educate more investors.

Also, please give me ideas on what pharmaceutical industry's segment or company do you want me to make my next thread on, in the comments section ■
https://t.co/o0P4m1VES9

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> — Anish Moonka (@AnishA_Moonka) November 17, 2021

The competitive scenario is not going to fizzle out anytime soon.

3 Hospital IPOs are in line to raise up to 6300crs in the upcoming months:

Cloud Nine
Medanta
Park Group

With moderation in capex, the time is ripe for them to show good ROI and get high valuations. Be careful.