

# AURANGABAD SUPER SPECIALTY HOSPITAL PPP

## PROJECT INFORMATION MEMORANDUM



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# Abbreviations

AB-PMJAY	Ayushman Bharat - Pradhan Mantri Jan Arogya Yojana
AIIMS	All India Institute of Medical Sciences
BPL	Below Poverty Line
CAGR	Cumulative Annual Growth Rate
CD	Communicable Disease
CGHS	Central Government Health Scheme
CVTS	Cardio Vascular & Thoracic Surgery
DCHC	Dedicated Covid Health Centre
DMER	Directorate of Medical Education and Research
ETP	Effluent Treatment Plan
GDP	Gross Domestic Product
GMC	Government Medical College
GoI	Government of India
GoM	Government of Maharashtra
GSDP	Gross State Domestic Product
IFC	International Finance Corporation
LOA	Letter of Award

MJPJAY	Mahatma Jyotirao Phule Jan Arogya Yojana
NABH	National Accreditation Board for Hospital and Healthcare Providers
NCD	Non-communicable disease
NPH	Non-priority household
O&M	Operation and Maintenance
OPD	Outpatient Department
PG	Post-Graduation
PHH	Priority Households
PPP	Public Private Partnership
PMSSY	Pradhan Mantri Swasthya Suraksha Yojna
SSH	Super Specialty Hospital
STP	Sewage Treatment Plant

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# PROJECT CONTEXT AND BACKGROUND



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# State Snapshot – Maharashtra, India

India's richest state -  
Accounts for 14% of  
country's GDP

India's second most  
industrialized state -  
46% of GSDP  
contributed by industry

India's second most  
populous state having  
population of 125  
million growing at a  
CAGR of 1.28%

State capital, Mumbai is  
India's financial and  
commercial capital

## Pradhan Mantri Swasthya Suraksha Yojana (PMSSY)

- ❑ The **Pradhan Mantri Swasthya Suraksha Yojana (PMSSY)** Program was developed to address imbalances in the availability of affordable tertiary healthcare facilities in different parts of India
  - Interventions include Setting up of AIIMS-like institutions; and Up-gradation of existing state Government Medical Colleges (**GMCs**).
- ❑ The Aurangabad Super Specialty Block (**Aurangabad SSH**) was built and equipped under Phase III of the PMSSY and is under the aegis of **Directorate of Medical Education & Research (DMER)**

## Government of Maharashtra's Healthcare Vision 2021-30

- ❑ **Provide affordable and accessible tertiary health care to all by 2030**
  - Building up of super-specialized service blocks
- ❑ **Create quality manpower at all levels of health sector in Maharashtra**
  - Strengthening of Post-Graduate (PG) teaching and creation of skilled specialized manpower in existing government medical colleges (GMCs)
  - Expanding Undergraduate education in existing GMCs and new districts
  - Establishing paramedical and nursing colleges
- ❑ **Medical Education and Drugs Department (MEDD) and DMER are committed to achieving the GoM's Vision 2021-30**

# Need for Healthcare Infrastructure in Maharashtra

## Increase in Urbanization

- Maharashtra is the third most urbanized state in India with about **45% of the population living in urban areas**
- **Urbanization associated health problems** include poor nutrition, pollution-related health conditions, communicable diseases, inadequate sanitation and housing conditions
- Urbanization has resulted in an increase in the demand for healthcare

## Dual Disease Burden

- India has moved from a high communicable disease (CD) burden country to a **country with twin problem of both CD and Non Communicable Diseases (NCD)**
- **Maharashtra is one of the highest NCD burden states** in India and it contributes to 68.6% of total NCD-attributed deaths in India.
- Dual burden of disease puts pressure on the existing health care facilities and results in need for additional infrastructure requirement

## Ageing Population

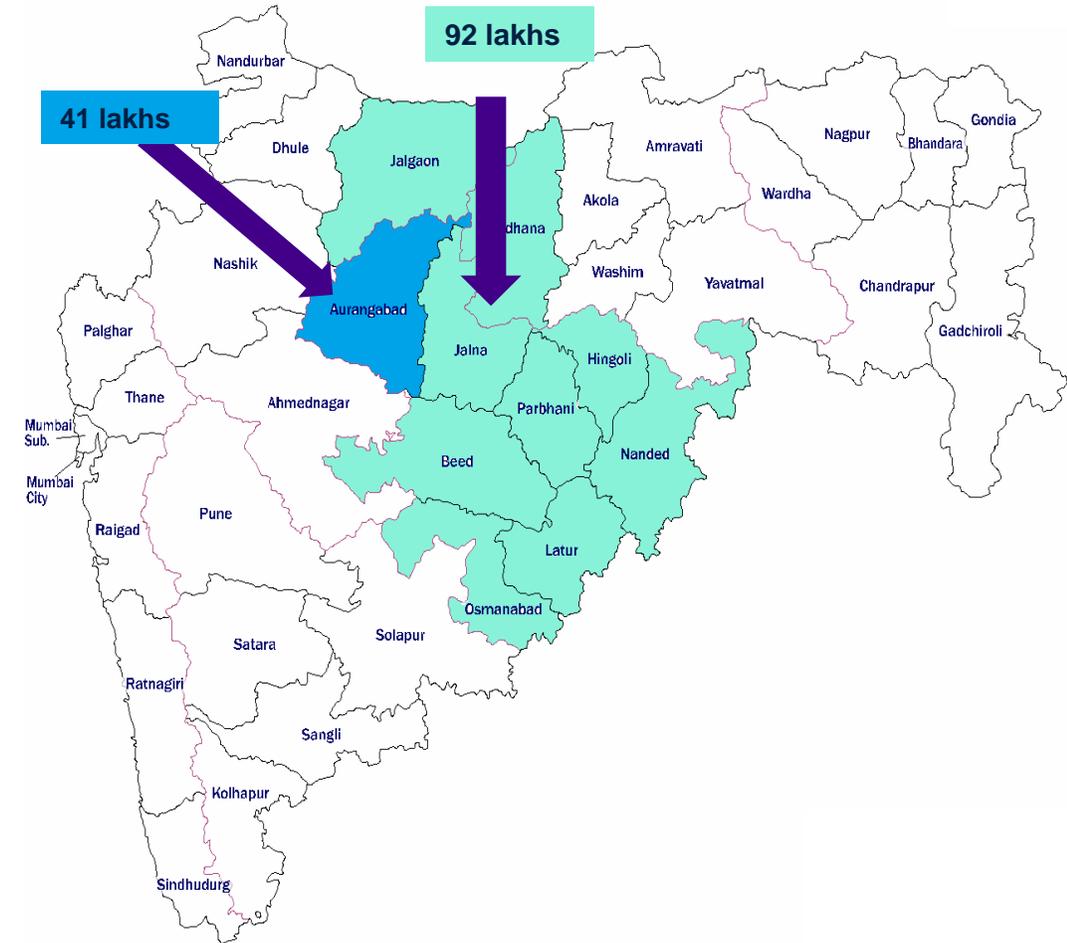
- **Population above 60 years is estimated to increase** from 12% in 2021 to 15% by 2031 in Maharashtra
- **Population above 45 age group expected to be 34% by 2031** as compared to current 28% in 2021
- With increase in the ageing population the demand for the healthcare services, especially tertiary treatment, will increase

## Expansion of Gov Health Insurance Coverage

- GoM has announced universal health coverage for the citizens of the State
- GoM has introduced **Mahatma Jyotirao Phule Jan Arogya Yojana (MJPJAY) scheme** to boost the insurance coverage, which has been integrated with the national Ayushman Bharat - Pradhan Mantri Jan Arogya Yojana (AB-PMJAY) scheme
- This would improve the accessibility and affordability and increase the demand for healthcare services

# Aurangabad has High Dependency of Patients Requiring Tertiary Care Services and a Relatively Large Patient Base

- Aurangabad has a **catchment area** with a population base of ~ 13.3 million
- **Majority of the inflow of the patients to Aurangabad is from the city and district**
- Lack of adequate tertiary and quaternary care facilities in central Maharashtra is the **reason for patient inflow to Aurangabad from these areas**
- Despite the high coverage of MJPJAY scheme, due to paucity of quality tertiary healthcare services, patients have limited options for accessing affordable and quality super specialty healthcare services in Aurangabad



Source: Census 2011, Population projection Report 2011-2036 ,PwC Analysis

# Mahatma Jyotirao Phule Jan Arogya Yojana (MJPJAY) Scheme

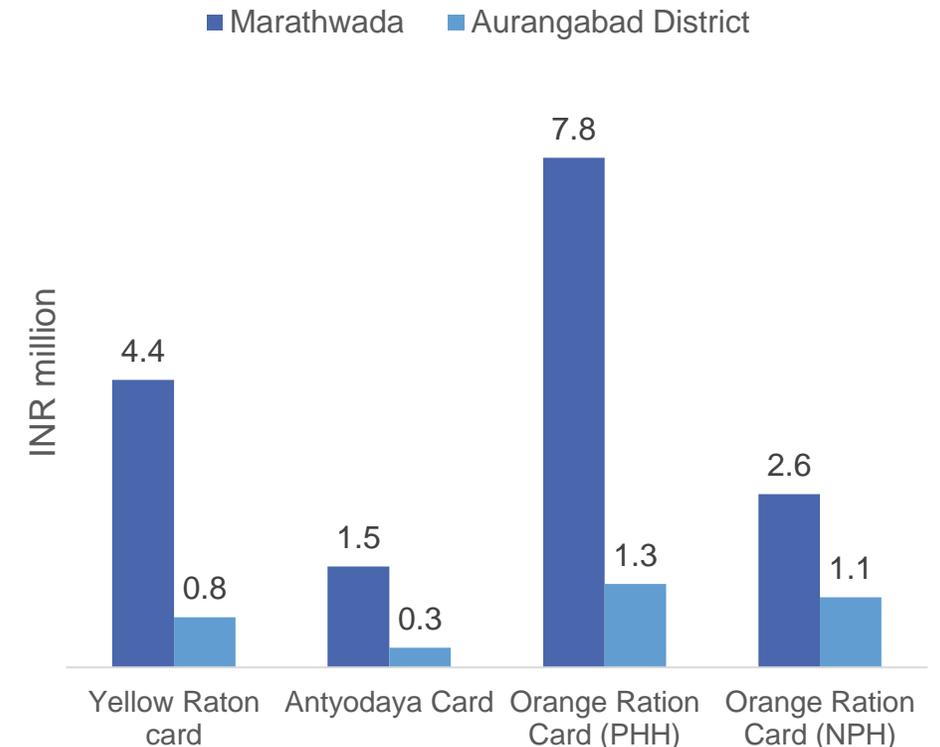
- MJPJAY is a flagship health insurance scheme of GoM providing end to end cashless services through a network of service providers
- Scheme covers hospitalization for Medical and Surgical procedures through cashless treatment for 34 identified specialties
- The scheme has been integrated with the national Ayushman Bharat - Pradhan Mantri Jan Arogya Yojana (AB-PMJAY) scheme
- A total of 1,209 Medical and Surgical procedures and 183 follow up procedures are covered through the integrated scheme
- Scheme covers the entire cost of treatment from the date of reporting to the date of discharge from hospital
- ~35.01 lakh (~83%) people in Aurangabad are covered under the integrated MJPJAY scheme

\* Yellow card: Families having annual income up to Rs.15,000/-;

\*\* Orange ration card: Families having annual income of Rs.15,001 to 1 lakh.

# Antyodaya Card: Issued to families who do not have a stable source of Income categorized as poorest of the poor

Number of population holding various types of Ration card



The 4 categories of ration card namely Yellow card, Antyodaya, Orange card, and Annapurna card are covered under MJPJAY

Source: Census 2011, Maharashtra Economic Survey Report 2021-22, NFSA portal, PwC Analysis

**83% of Aurangabad district population is covered under the MJPJAY scheme**

# PROJECT DETAILS



# Aurangabad Super-Specialty Hospital (Aurangabad SSH)

- The Aurangabad Super Specialty Hospital Block is built within the campus of Government Medical College Aurangabad (GMC Aurangabad)
- The Aurangabad SSH has a built-up area of about 2.7 acres, and comprises of ground plus 5 floors
- The construction of the building was started in the year 2017 and completed in 2019. Wards and ICU were operational under GMC during COVID-19 pandemic
- The equipment at the facility has been provided to MEDD by the Ministry of Health & Family Welfare. Several items have been installed and functional.
- Sanitary & plumbing, electrical services, rainwater harvesting system and firefighting system etc. have been installed in the building.
- There is a dedicated Sewage Treatment Plant (STP) and Effluent Treatment Plant (ETP) for the Aurangabad SSH



*6 bed functional dialysis department.  
Provision of 14 beds*



*Modular Operation Theatre (total 6  
OT's)*



*General ward beds on 2<sup>nd</sup> and 3<sup>rd</sup> floor*



*ICU on 4<sup>th</sup> floor*

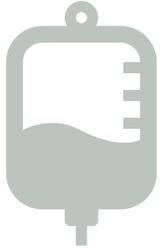
# Project Description & Scope

- **DMER intends to select a Private Operator for the Operation & Maintenance of the Aurangabad SSH** to provide super specialty treatments predominately targeted at patients covered under MJPJAY
- The Operator will be expected to independently operate the Aurangabad SSH for a 15 year period (Project Term).
- The Operator will deliver clinical and diagnostic services by engaging the necessary specialists and staff, operate and maintain Aurangabad SSH building and ancillary facilities and manage and maintain the equipment provided under PMSSY.
- DMER will prescribe **some mandatory specialties to be delivered at the Aurangabad SSH**. The Operator may provide additional specialties
- The Operator will be provided the medical equipment available on **an as-is-where-is** basis. Any equipment (in addition to that available) will be procured by the Operator as needed.
- The Operator will empanel all specialties under MJPJAY and will commit to minimum **50% Bed Days** for MJPJAY covered patients



# Roles and Responsibilities

## DMER Obligations



Handover of existing medical equipment on a as-is-where-is basis



Appoint Monitoring Agency (till Construction phase) and members of the Coordination Committee



Facilitate necessary approvals for the Operator

## Operator Obligations



Operate and maintain the hospital facility conforming to the minimum super-specialties prescribed by DMER



Manage clinical and non-clinical services including deployment of specialist doctors and support staff

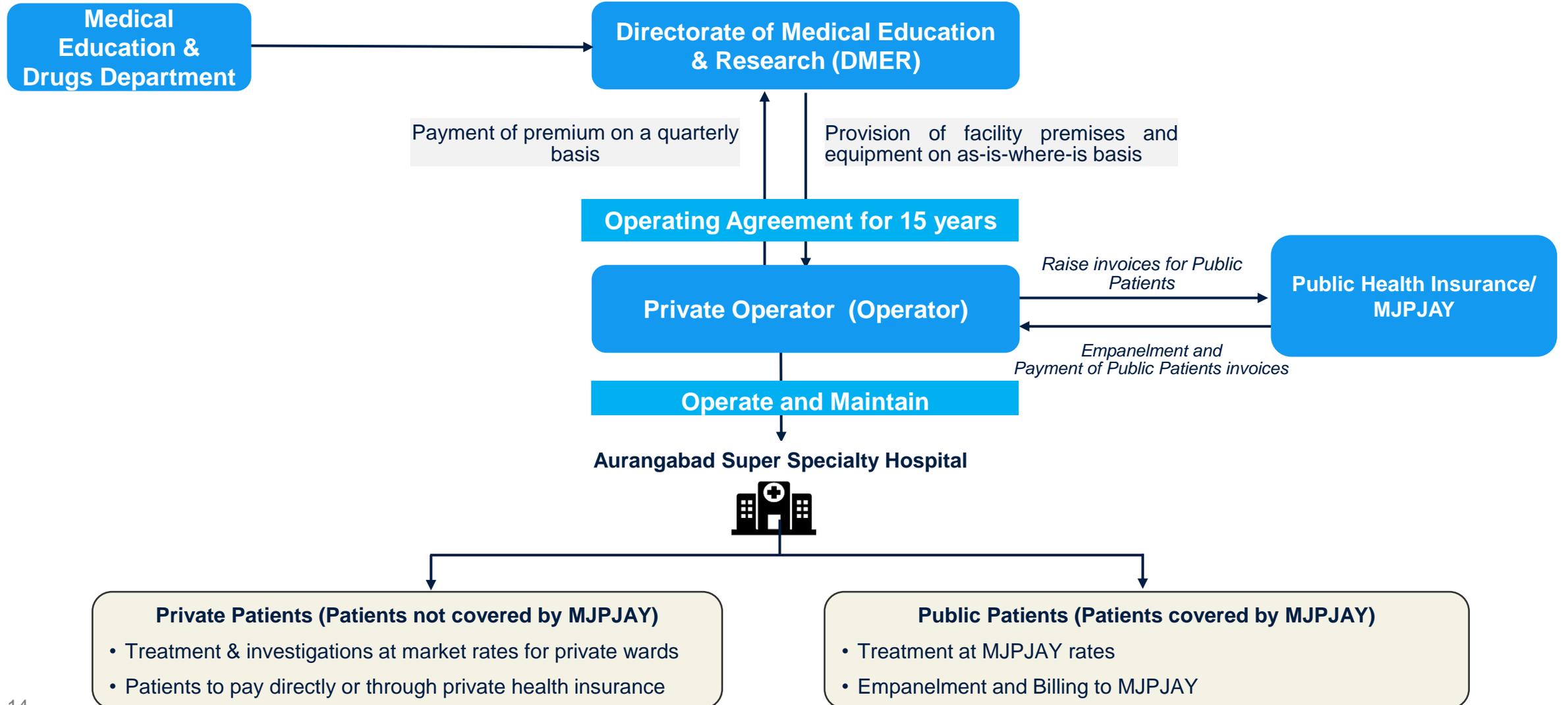


Undertake any incremental investment including capex to equip the facility for providing the chosen specialties



Reserve at least 50% of bed days for Public patients

# Transaction Structure



# Equipment Provided by MoHFW at Aurangabad SSH (Existing Equipment)

<b>Cardiology</b>	Endosys sterman ETO Sterilizer, Cardiovascular catheterization with Digital Subtraction, TMT System, Holter System with workstation, Onei7pc (computer) monitor, High end echocardiography system
<b>CVTS</b>	Ultrasonic cautery, Battery operated sternum system for cardiocssd, Heart lung machine, ACT Machine, IABP, Suction Machine, Electric Operated Sternum Saw System, OCT & FER Integrated System
<b>Neurology / Neurosurgery</b>	Digital EEG Basic System32 Channel, Digital EEG basic system, Dell Desktop, Color LED, HP Color Printer, 8 channel EMG- NCS-EP system 02 Box, Master console EC300, Intra operative Neurophysiological Monitoring system, C-ARM(Allengers HF-59), Neurosurgery Instrument, Operating Microscope
<b>Nephrology /Urosurgery</b>	Haemodialysis Machine with sled, 1) Surdial 55 plus 2) synthetic Hemodialyzer 3) Blood tubing, 20KVA (3P-1P) Double, 1)Turnkey Project 2) RO plant, General Surgery Instrument set, Electro Cautery unit with vessel sealing, Ultrasonic cutting and coagulation device, Mobile c-Arm image Intensifier, Turp, Cystoscope & optical urethrotome, Camera system for Endourology, Flexible Cysto- Nephoscope, Laparoscopy set, Pulse Oximeter, Cystoscope and resectoscope pediatric for department of Urology, Uretero-Renoscope pediatric for department of Urology, Uretro Renoscope- Adult, Laparoscopy set, PCNL set
<b>Neonatology</b>	Pulse Oximeter, Ventilator Neonatal with HFO, Transcutaneous Bilirubin Analyzer, Irradiance Meter for Phototherapy, Air Oxygen Blender, Brilliance Pro, Air Oxygen Blender (02 No.), Brilliance Pro.(05 No.)
<b>Others</b>	Equipment for Radiology, Anesthesia, Plastic Surgery

\* Detailed list of Existing Equipment is provided as an annexure to the Information Memorandum

# MARKET ANALYSIS



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# Aurangabad Catchment Area

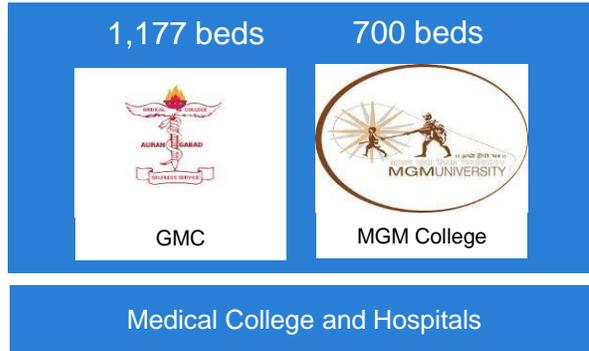
*Lack of adequate tertiary and quaternary care facilities in Central Maharashtra is the reason for patient inflow from the district to Aurangabad city*

- Aurangabad city has the highest population growth rate amongst other major cities in the region as well as some of the other prominent cities in the state
- The overall growth rate of the population for Aurangabad district in the past decade has been healthy ~ 1.2-1.3 % p.a.
- Aurangabad is a major medical hub with advanced medical facilities and services for central Maharashtra
- Many people from surrounding rural areas and other neighboring districts rely on Aurangabad for their tertiary and quaternary healthcare needs because of presence of advanced medical treatment facilities available in the city

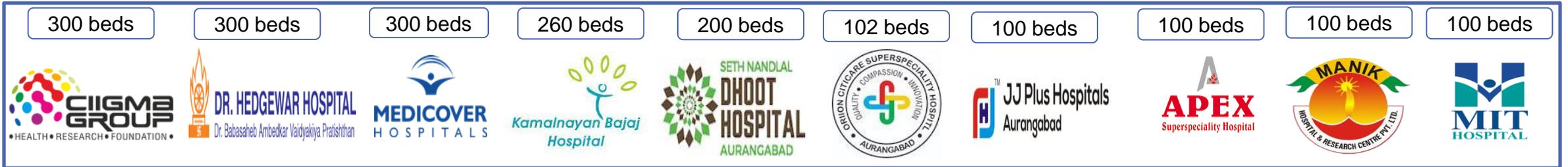
Classification	Primary catchment area	Secondary catchment area
Location	Aurangabad city & district	<ul style="list-style-type: none"><li>• <b>Other districts of Marathwada:</b> Beed, Jalna, Hingoli, Osmanabad, Parbhani, Nanded, Latur</li><li>• <b>Districts from other region:</b> like Buldhana from Vidarbha and Jalgaon from Nasik</li></ul>
Target population base	~ 41 lakhs	~ 92 lakhs

**Estimated target population base of Aurangabad: ~ 133 lakhs**

# Aurangabad Hospital Landscape

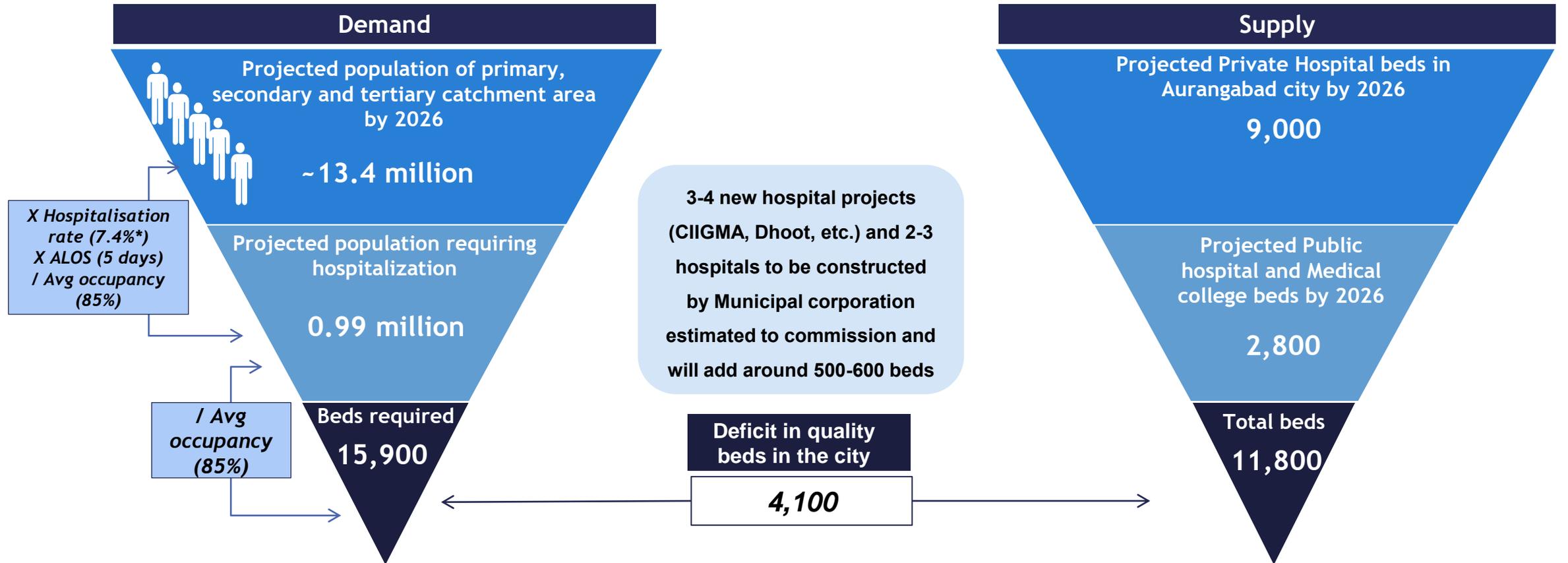


## Private hospitals



- Aurangabad city has ~2.7 beds per 1000 population with >75% Of the beds in the private hospitals
- There are ~10-15 private and corporate hospitals with bed capacity of more than 150 beds. Hospitals like CIIGMA, Dhoot Hospital, Kamalnayan Bajaj Hospital, Manik Hospital, etc. are few of the prominent hospitals. Medicovert hospital has started operations in 2020-2021
- Leading private hospitals have occupancy upwards of 60%

# Demand Supply Gap



Note:\* The hospitalisation rate was arrived by using average of age-wise hospitalisation rates for developed markets and the NSSO 75<sup>th</sup> round data. These were then applied to the population of Catchment area to arrive at a weighted average hospitalisation

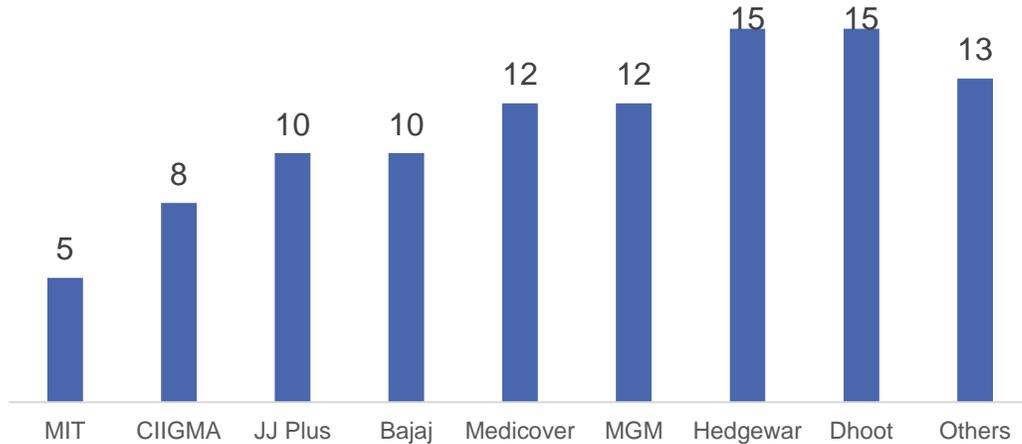
# Surgery Gap Analysis

	Coronary Angiogram (CAG)	Coronary Angioplasty (PTCA)	Cardiovascular & Thoracic Surgery (CVTS)	Neurosurgery	Urosurgery
Estimated Demand for surgical Intervention	24,500	7,400	3,700	24,200	45,600
Number of surgeries performed	18,000	6,000	2,500	2,500	6,000
Demand Gap	6,500	1,400	1,200	21,700	39,600
Percentage Demand Gap	27%	18%	33%	90%	87%

**Aurangabad is the medical hub for Tertiary and Quaternary Care in the Marathwada region leading to high catchment population and demand**

**Supply gap in Neurosurgery, Nephrology and Urosurgery**

# Dialysis and Renal Procedures Gap Analysis



## Dialysis Scenario

- Aurangabad has 15-16 qualified nephrologists in the city
- There are 12-15 dialysis centers in the city. Most of the dialysis service is provided in hospital setups
- ~50,000-55,000 dialysis sessions are done per year across Aurangabad
- There are around ~100 dialysis machines in Aurangabad

## Renal Transplant Scenario

- Aurangabad is one of the leading centres for Renal transplant with ~180-200 transplants being performed annually (amongst the highest in the state)
- There are 9 transplant centres in Aurangabad.

Total patients requiring Dialysis including inflow from neighbouring regions*	<b>~3,300</b>
Total Sessions per year	<b>~3,42,300</b>
Total machines required	<b>390</b>
Total machines at present	<b>100</b>
Current Deficit of machines	<b>290</b>

# BIDDING FRAMEWORK



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# Site Visit and Validation

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- Bid Documents will be issued at <http://mahatenders.gov.in>
- Prospective bidders are invited to inspect and evaluate the Site and Existing Equipment in greater detail after purchase of Bid Documents
- Independent verification to satisfy prospective bidders of the suitability and adequacy of the Project site, hospital building, hospital facilities and existing equipment for operating and maintaining the Aurangabad SSH
- All such visits and studies will be undertaken by prospective bidders at their own cost

# Bid Structure



## Envelope I

### Documents

- Power of Attorney
- Bid Security
- Performance Security
- Copy of Draft O&M Agreement with initials on each page
- Joint Bidding Agreement, if applicable



## Envelope II

### Financial Criteria

- Average annual turnover from healthcare operations (hospital, diagnostics, laboratories) for last 3 years – at least INR 25 crores

### Technical Criteria

- Operation of at least 1 super-specialty hospital with over 100 beds including tertiary services over last 5 years

### Legal Criteria

- Consortium members are properly constituted
- Details of any ongoing litigation involving any consortium member



## Envelope III

### Technical Proposal

- Bidder Profile including Organization structure, current coverage of healthcare services etc..
- Specialties to be offered and timelines
- Specialists to be Recruited

### Financial Proposal

- Premium Amount

# Indicative Bid Timeline

Event Description	Date
Issuance of RFP and the draft O&M Agreement	T
Official Site Visit	To be announced
Pre-Bid Conference	T + 30 days
Last date for receiving queries from Prospective Bidders	T + 35 days
Response of the Authority to the queries	T + 45 days
Last date for independent Site visit	T + 53 days
Issuance of Addendum and final Bidding Documents	T + 60 days
Bid Due Date and time	T + 75 days, at 17:00 hours (IST)
Opening of Technical Bids	T + 75 days, at 17:30 hours (IST)
Announcement of the Qualified Bidder(s)	Within 15 days of the Bid Due Date
Opening of Financial Bids	Within 21 days of the Bid Due Date
Issuance of Letter of Award (LOA)	Within 30 days of the Bid Due Date
Signing of the O&M Agreement	Within 30 days of issuance of LOA
Expiry of validity of the Bid(s)	180 days from the Bid Due Date

# Contact Details

*For further information, please contact the undersigned.*

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# THANK YOU



*Creating Markets, Creating Opportunities*

# Existing Equipment at Aurangabad SSH (1/4)

Sr. No.	Equipment Name	Quantity
1	MRI System 1.5T	1
2	TMT machine	1
3	Holter System with Work Station	1
4	OCT & FFR Integrated System	1
5	High End Echocardiography system (4D Echo)	1
6	Single plane cardiovascular catheterisation with digital subtractionangiography lab	1
7	Portable -Colour Doppler	2
8	Mobile X-ray Machine	1
9	Color Doppler System-4D	1
10	Flexible Cysto-Nephroscope	1
11	General Surgery Instrument Set (Urology)	1
12	Mobile C-arm Image Intensifier (Urology)	1
13	Intra Operative Neurophysiological Monitoring System	1
14	Neurosurgical Operating Microscope	1
15	Turp, Cystoscope & Optical Urethrotome	1
16	High Speed Electrical Drill System	1
17	Multiparameter Monitor	23
18	Pulse Oximeter	10
19	Defibrillator with CPR Monitoring and TC Pacing	2
20	Ventilator- Portable	3
21	Non-Invasive Ventilator with Standard Accessories	4
22	Ventilator- High End (ICU)	25
23	Blood & Fluid Warmer with Standard accessories	2
24	Pulse Oximeter	10
25	Infusion Pump(Volumetric)	30

# Existing Equipment at Aurangabad SSH (2/4)

Sr. No.	Equipment Name	Quantity
26	Defibrillator with ECG Monitor	6
27	High-End Monitor for ICU with CNS (16) + Central Monitoring System (2)	18
28	Anesthesia Machine with Integrated Monitor & Ventilator	1
29	Digital EEG Basic System 32 Channel- Without Video	1
30	Laparoscopy Set	1
31	Camera System for Endourology	1
32	Ultrasonic Cautery	1
33	Ultrasonic Cutting and Coagulation Device	1
34	Electro Cautery Unit with Vessel Sealing	2
35	Rotary Shaker	3
36	Embedding Station with Hot & Cold Table & Paraffin Dispenser	1
37	Microtome- Fully Automated	1
38	Blood Cell Counter 5 Part	1
39	Ventilator Neonatal with HFO	2
40	Heart Lung Machine	1
41	Intra-Aortic Ballon Pump	2
42	ACT Machine	1
43	Battery Operated Sternum System	1
44	Haemodialysis Machine with SLED	1
45	Haemodialysis Machine (6) + RO Plant (1) + Online UPS (1)	8
46	PCNL Set	1
47	Uretero-roscope-Adult	1
48	Cystoscope & Resectoscope- Peadiatric	1
49	Uretero-roscope- Paediatric	1
50	Syringe Infusion Pump (18) +Docking Station (3)	21

# Existing Equipment at Aurangabad SSH (3/4)

Sr. No.	Equipment Name	Quantity
51	Transport Monitor	5
52	General Neurosurgery Instrument Set	1
53	Multipurpose OT Table	4
54	C-Arm	1
55	Syringe Infusion Pump (80) +Docking Station (12)	92
56	Pneumatic Tourniquet	1
57	Suction Machine	10
58	Operating Microscope ( Plastic Surgery)	1
59	Air Oxygen Blender	1
60	LED Phototherapy Unit	10
61	Irradiance Meter for Phototherapy	2
62	Transcutaneous Bilirubin Analyzer	1
63	Mobile Examination Light	2
64	500 mA HF X-Ray Machine	1
65	8 Channel EMG-NCS-EP System	1
66	Suction Machine	2
67	Infusion Pump(Volumetric)	11
68	Pulse Oximeter	8
69	Ventilator-Portable	7
70	LED Phototherapy Unit	5
71	Air Oxygen Blender	2
72	Electric Operated Sternum System	1

# Existing Equipment at Aurangabad SSH (4/4)

Sr. No.	Equipment Name	Quantity
73	Autoclave (Vertical)	1
74	Binocular Microscope	3
75	Random Access Medium Throughput fully automated chemistry analyser	1
76	Semi-Auto Analyser	1
77	Incubator	1
78	Hot Air Oven	1
79	Water Bath Serological	3
80	Refrigerated Centrifuge	1
81	Elisa Reader with Washer and Shaker	1
82	pH Meter	1
83	Anesthesia Machine with Integrated Monitor & Ventilator	5
84	ETP & STP PLANT	1
85	GENERATOR 2 500 KW each	2
86	Central Fire Fighting System	1
87	Liquid Oxygen Tank 10 KL	1
88	Liquid Oxygen Tank 11 KL	2
89	CCTV Security System	1
90	Central AC system 250 Ton capacity	1
91	Lift and Dumbwaiter lift	5