



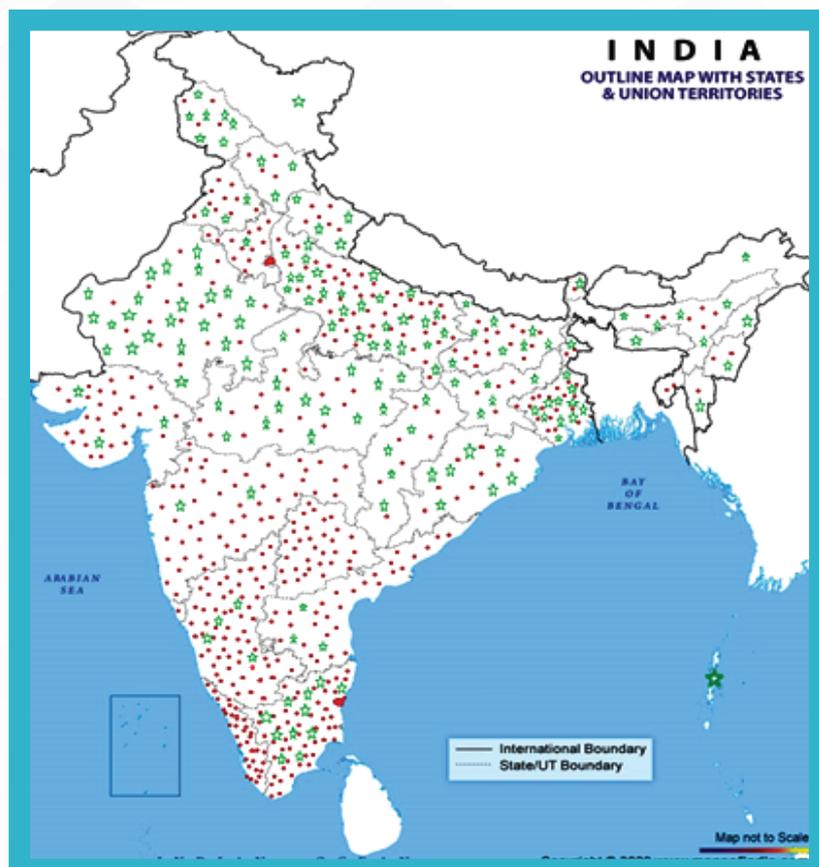
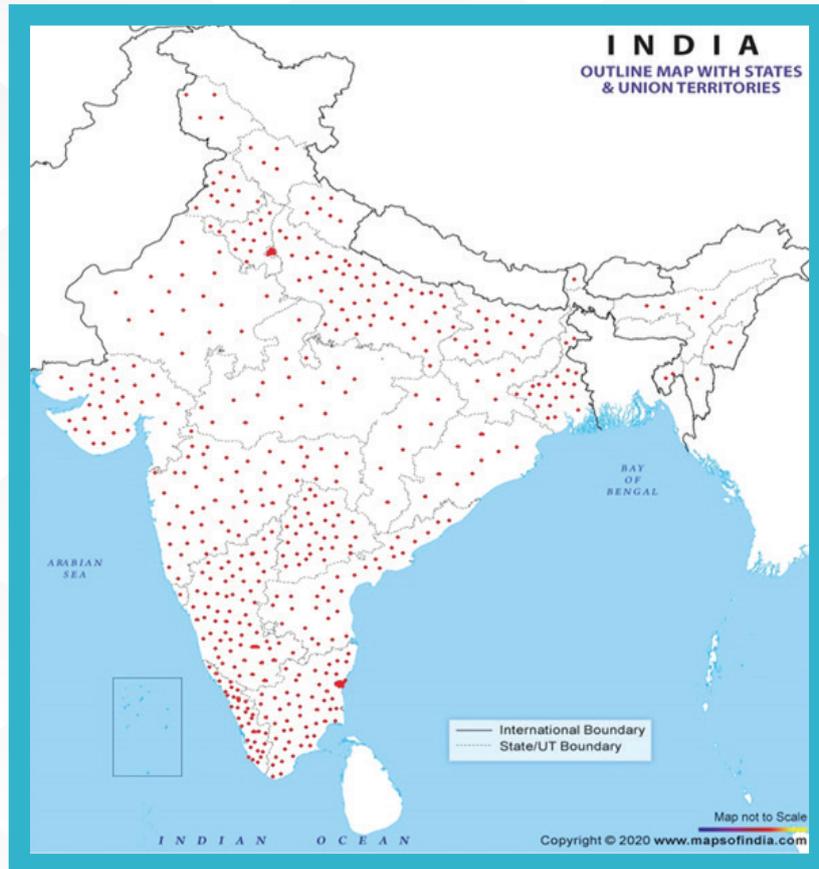
Ministry of Health & Family Welfare
Government of India



REFORM, PERFORM, TRANSFORM

Governance Reforms in Medical Education
(2014–2020)

The changing face of Medical Education



- Existing Medical Colleges
- ★ New Medical Colleges

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Reforms in Medical Education

- Transparency
- Professionalism
- Accountability
- Availability
- Distribution
- Merit based
- Affordability
- Quality

BACKGROUND

Regulatory reforms brought in the sector of Medical Education over the last six years have transformed this sector, bringing in transparency, meritocracy and expansion. India is well on the path of becoming a leader in health care delivery.

In India, shortfall of medical human resources was a major challenge. The problem was not only limited to the numbers; but there were challenges in distribution and quality as well. Availability, Accessibility and Quality - all needed focus.

Mudaliar committee (1961) suggested establishing one medical college for a population of 50 lakh and advocated for a doctor : population ratio of 1:3000. However, in later years with the change in the health seeking behaviour, the requirements changed. The World Health Organization (WHO) currently recommends a doctor population ratio 1:1000

Over the last six years, a landmark change has happened in all these parameters. The number of medical colleges which stood at 381 in 2014 increased to 562 in 2020. During this period, the number of MBBS seats increased by around 56%, from 54,348 to 84,649; while the postgraduate seats increased by around 80%, from 30,191 to 55,595. The doctor-population ratio now stands at 1:825, India has around 10.05 lakh allopathic and 6.30 lakh AYUSH doctors.

THE SITUATION IN 2014

While India had a limited number of 381 medical colleges in 2014, the system was riddled with far too many problems. The overarching regulatory body of the medical colleges, the Medical Council of India (MCI) had become 'a high entry barrier'. This had led to a paucity in the number of medical colleges and number of seats, both at the undergraduate and the post graduate levels, across the country.

The Medical Council of India was a body of elected members where the regulated elected 'the regulators creating ab initio conflict of interest'. All functions and authority related to medical colleges was concentrated and centralised in the Medical Council of India, making it unwieldy, slow and inefficient in decision making.

There was a disconnect between medical education and health service delivery. Many medical colleges, especially in the private sectors, suffered from low-quality education and high fees. District hospitals and large private hospitals remained unutilized for teaching purposes. There were multiple entrance examinations for undergraduate and post graduate courses. In many private colleges, the admission was on the basis of capitation fee and not merit. The regulatory norms prohibited expansion of medical colleges.

"Game changer reforms of transformational nature are therefore the need of the hour and they need to be carried out urgently and immediately. Because, if revamping of the regulatory structure is delayed any further on any grounds including political expediency, it will be too late, with the result that our medical education system will fall into a bottomless pit and the country will have to suffer great social, political and financial costs.

-Department related Parliamentary Standing Committee (92nd Report)

THE JOURNEY OF REFORMS



In the context of multiple charges of malpractices against the Medical Council of India and need for transformative reforms in medical education, the Central Government undertook multi-pronged reforms. These will bring in transparency, accountability, and quality, in medical education.

These reforms were guided, inspired, and led from the highest level with Hon'ble Prime Minister reviewing the progress regularly. On a day-to-day basis, these were led by Board of Governors (BOG) of MCI, NITI Aayog, Ministry of Health and Family Welfare (MoHFW) and included consultation and cooperation of all stakeholders including various Ministries in the Central Government.

The governance reforms in medical education opened up multiple alternatives for improving access, quality and equity in provision of trained healthcare human resources.

INSTITUTIONAL REFORM: NATIONAL MEDICAL COMMISSION

The biggest step has been the establishment of the National Medical Commission (NMC). Regulators of the highest standards of professional integrity, experience, stature and excellence have been selected and placed at the helm to steer the reforms further. With this, there is a complete overhaul of the inefficient and opaque Medical Council of India (MCI). This was achieved by passing of the National Medical Commission Act in August 2019, which came into force on 25th September 2020. This historic reform will steer the direction of medical education towards a transparent, qualitative and accountable system. The basic change is that the Regulator is now selected on merits, as opposed to being elected. NMC will make the medical education in India quality oriented, competency based, equitable, affordable and at par with the best in the world.

Besides streamlining all the existing regulations, conduct of a common exit exam NEXT, prescription of fee guidelines, making the standards for Community Health Providers and rating of medical colleges are some of the important tasks which NMC has already initiated.

Transition from Medical Council India (MCI) to National Medical Commission (NMC)



Four mutually independent and Autonomous Boards have been created which would work under the overall supervision of the National Medical Commission. These are Under-Graduate Medical Education Board, Post-Graduate Medical Education Board, Medical Assessment and Rating Board and Ethics and Medical Registration Board.

National Medical Commission

National Medical Commission has been established to:

- (1) Improve access to quality and affordable medical education
- (2) Ensure availability of adequate and high-quality medical professionals in all parts of the country
- (3) Promote equitable and universal healthcare that encourages community health perspective and makes services of medical professionals accessible to all
- (4) Encourage medical professionals to adopt latest medical research in their work and to contribute to research
- (5) Objectively assess medical institutions periodically in a transparent manner
- (6) Maintain a medical register for India
- (7) Enforce high ethical standards in all aspects of medical services
- (8) Have an effective grievance redressal mechanism.

ENSURING AVAILABILITY OF DOCTORS AND SPECIALISTS: INCREASE IN NUMBER OF MEDICAL COLLEGES

A critical reform in increasing the number of doctors has been the increase in the number of medical colleges. There has been concerted efforts over the last six years to increase the number of medical colleges. A Centrally Sponsored Scheme was introduced in 2014 to provide central funding support for opening new medical colleges. Three phases of the Scheme have been approved till date under which 157 colleges have been sanctioned. Of these, 47 colleges have already become functional and 110 are expected to be functional in the next few years. Among these, 39 medical colleges are in the Aspirational Districts, where there is acute need of doctors and specialists. Against 381 medical colleges in 2014, today there are 562 medical colleges today, i.e. an increase of 48%. The number of UG seats have increased by 56% and number of PG seats have increased by 80% as compared to 2014.

Pradhan Mantri Swasthya Suraksha Yojana (PMSSY): The PMSSY is based on ensuring the three Es of Expand-Equity-Excellence. The scheme aims at correcting regional imbalances in the availability of affordable and reliable tertiary healthcare services and augmenting facilities for quality medical education in the under-served States.

A total of 21 new AIMS have been started, out of which MBBS classes have been commenced in 18 AAIMS. The upward trajectory of growth in terms of OPD services, IPD services and teaching learning activities in these new AIMS has been moving at a commendable pace.

QUALITY: PROMOTING HIGH STANDARDS

Skill Lab: The new standards for opening of medical colleges envisages a skill laboratory in every medical institution. Here students can practice and improve their skills in safe environment, mitigating the limitations of learning on live patients. These skill labs will recreate the clinical environment and provide a much greater opportunity for learning through mannequins and computerised simulation.

New competency-based curriculum: 'Competency-based Undergraduate Curriculum for the Indian Medical Graduate' has been introduced. The curriculum has been changed after 21 years, previous edition being that of 1997. This change will be a landmark reform for orienting medical education to competence based learning. For the first time, 'Attitudinal and Communication' competencies have been added in the MBBS Curriculum. The importance of ethics, responsiveness to needs of patients and families has been acknowledged. Also a month-long foundation course for students from diverse backgrounds to help them cope with the stress, and to adapt to English language has been added. Another new element is the introduction of elective subjects. Now students can pick up subjects of their choice. Time has been allotted for self-directed learning and co-curricular activities.

Emergency Medicine Department: All the medical colleges will have emergency medicine department by 2022. The department will have a casualty area, an intensive care unit, an operation theatre and trained staff. This step will bring transformation in the Emergency Medicine and in the availability of trained human resources for critical care.

AFFORDABILITY

Regulation of Fee: Before the NMC Act, there was no legal mechanism to regulate the fee charged by the private colleges. This led to instances of overcharging of fees by some private colleges, making them out of reach for poor meritorious students. Reforms have been taken to make the medical education affordable the students. The National Medical Commission (NMC) Act has the provision to regulate fee and all other charges in 50% of the seats in private medical colleges and deemed universities. NMC is framing guidelines in this regard.

MERITOCRACY: ONE COUNTRY, ONE EXAM

NEET: In 2016, a common entrance test- National Eligibility cum Entrance Test (NEET) was introduced, which ensured 'one country, one examination, one merit' system and a common counselling system. This allowed students from anywhere in India an opportunity to study in any medical college in the country based on merit. They were also spared from appearing in multiple entrance tests and the related stress thereof.

National Exit Test (NEXT): To gauge the standards of competence and knowledge of students passing the MBBS exam NEXT has been proposed under the NMC Act. This will be a common final year MBBS exam which would not only serve as a licentiate exam for practice, but also serve as an entrance exam for admission to Postgraduate in broad speciality medical courses. Further, the same exam will serve as a screening test for foreign medical graduates.

Common Counselling: Instead of prevailing practice of separate counselling sessions for different medical colleges, a common counselling at central level and State level has been started from 2016. This has ensured transparency in admissions. From 2021, counselling of DNB (Broad Specialty) has been merged with MD/MS Counselling to further streamline admissions. NEET, NEXT and the common counselling has also been made applicable to Institutes of National Importance such as AllMS, New Delhi, JIPMER, Puducherry and PGI, Chandigarh through the NMC Act.

Family Medicine: Of late, the medical sciences have seen a move towards specialization and super-specialization. A point of Contact for the patient with holistic approach towards medical Science was seen to be diminishing. The expansion of the PG, particularly under NBE, has focussed on promoting family medicine as a specialised discipline. There are now both MD and Diploma courses offering specialisation in this discipline. The post graduate program in family medicine will produce specialist family physicians. The Family Medicine incorporates the basic knowledge of Medicine, Surgery, Obstetrics and Gynaecology.

Community Health Providers: The MBBS and postgraduate doctors prefer to work in cities, creating a vacuum in the rural and peripheral areas. Also, at the primary and promotive healthcare level, many of the services may not require a full-fledged doctor. Looking at this, It has been considered appropriate that skills and knowledge of persons with background in medicine be enhanced and their services made available at the primary healthcare level. The NMC Act, therefore, provides for Community Health Providers (CHPs), who would be the health providers connected with modern scientific medical profession with limited right to practice medicine and prescribing medicine in primary and preventive care.

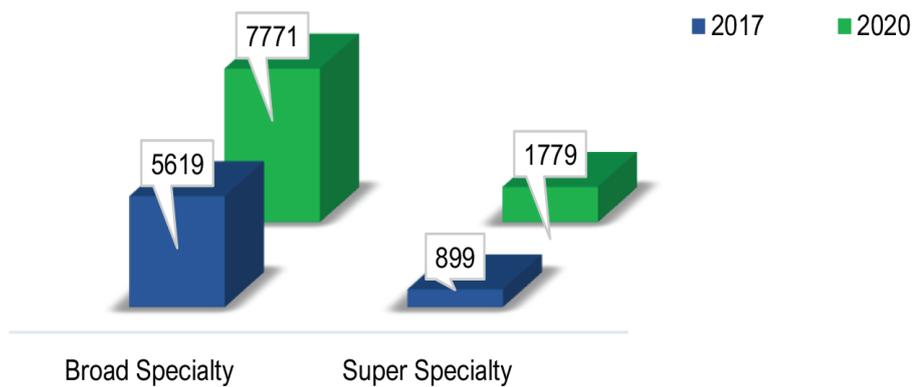
District Residency Scheme: A Scheme for three months training for the second/third year Postgraduate medical students at District Hospitals as an essential component of postgraduate medical training Curriculum has been introduced. This scheme is to be implemented from 2021. The Scheme will ensure that each district hospital will have additional 4-8 junior residents to support specialist care. This would help the students get the exposure of district health system with large number of varied cases. This also helps in strengthening of the DH by giving adequate number of helping hands for specialists.

ACCESS IN RURAL AND PERIPHERAL AREAS

Location of Medical Colleges: Equity in medical education and of geographic balance in availability of medical care is being addressed is by locating new medical colleges in backward districts. Of the 157 new colleges that are being opened under the Centrally Sponsored Scheme, 39 are coming up in the Aspirational districts. NMC has been mandated with looking at the overall HR requirements for health. They will also examine the location of medical colleges coming up. The NMC will also see for equitable distribution as well as sustainable running of the colleges including of availability of adequate patients and faculty.

Diploma Courses by NBE: In order to meet the shortfall of specialists, the National Board of Examinations (NBE) has launched 2 years diplomas in eight disciplines. They have been specifically chosen to meet the public health needs of the country, namely - Anaesthesia, Gynaecology and Obstetrics, Paediatrics, ENT, Ophthalmology. Family Medicine, Tuberculosis and Chest Diseases and Radio diagnosis.

These disciplines have been carefully selected to cater to gaps in specialists at the secondary care level. The admission to these courses would be through NEET-Postgraduate. 50% of the seats will be reserved for in-service doctors. Through this reform, increase of at least 1000 seats every year will be achieved.



Progress in NBE Courses (Number of PGs)

Government/ PSUs/ Defence Hospitals

104 Accredited Hospital



1738 Seats

District/Civil Hospitals

64 Accredited Hospital



457 Seats

Private Hospitals

536 Accredited Hospital



7584 Seats

NBE accredited hospitals and seats

NATIONAL BOARD OF EXAMINATIONS

National Board of Examinations (NBE): One important measure to quickly upscale the number of postgraduate seats is through focus on the NBE. NBE is an autonomous body of MoHFW for Examination and Accreditation.

National Board of Examination

DNB (Broad Speciality)- 3 years

DNB (Post diploma)- 2 years

DNB (Super Speciality)-3 years

Fellowship NB – 2 years

It accredits the hospitals (mainly private hospitals) for broad specialty and super specialty courses that are equivalent to MD/MS or DM/MCh respectively. Further, the NMC Act has provided suo moto recognition to all courses run by NBE. The National Board of Examination has so far accredited 704 hospitals with 9779 seats, 80% of which is in private sector.

There has been a tremendous increase in Postgraduate seats brought about by the National Board of Examinations (NBE) over the last few years by rationalising the accreditation criteria. This can be seen in the graphs.

Recognizing that a well-functioning hospital is at the core of medical training, the new regulations mandates the availability of a fully functional 300 bed multi-speciality hospital for at least two years at the

Streamlining MSR

	Bed requirement (150 seats)	Faculty requirement (150 seats)	
		Faculty	Resident
Before '15	750	152	115
2015	650	132	85
2018	650	132	80
2020 (New Standards)	600	116	76

time of application for establishing anew medical college (earlier regulations did not specify the period of functionality). The beds required in the various departments of the teaching hospital have been rationalized to align with the annual student intake, teaching time to be spent in the clinical specialties and the minimum clinical material required for undergraduate medical training has resulted in about 10% reduction in teaching bed needs compared to the earlier regulations. The human resources required as teaching faculty have also been rationalized. Over and above the minimum prescribed faculty provision for "visiting faculty" has been provided to enhance quality of training.

Minimum Standard Requirement: The most significant reform carried out recently by the NMC pertains to streamlining the entire regulations on Minimum Standards Requirement (MSR) for establishment of medical colleges. As per these new regulations, the quantum of land required for setting up a medical college and its affiliated teaching hospitals has been deleted (all buildings are expected to conform to existing building byelaws). Earlier the requirement was of 20 acres for general areas and 10 acres for metropolitans and as a single parcel. As per new requirements, in tier 1 and 2 cities and in hilly and in NE states the land could be in two parcels within a distance of 10 Kms. The new Regulations only define the minimum requirements of space for

all student centric areas in the institution and the functional areas required. The standard provide for all available teaching spaces by all departments

Land Requirement for Establishment of Medical College

	Earlier	New Standards
General	20 Acre	<ul style="list-style-type: none"> No minimum land requirement prescribed
Class 'A' Cities with 25 lakh + population and NE / Hill States	20 Acre; can be in two parcels within 10 km distance; main parcel housing hospital, college etc cannot be less than 10 acre	<ul style="list-style-type: none"> In tier 1 and 2 cities, Hilly and NE States, two parcels of land within 10 km distance Sharing of teaching spaces by Departments Minimum space requirements for functional areas (e.g. labs, library etc. rationalised)
Metropolitan	10 Acre	<ul style="list-style-type: none"> All teaching spaces to be e-learning enabled

(compared to the inflexibility in the regulations earlier). It also mandates all teaching spaces to be e-learning enabled and digitally linked to one another (it was only desirable earlier). A well-equipped "Skill Laboratory" for training students is now essential and a Medical Education Unit for training medical teachers in educational pedagogy has been redefined. The space required for Library and the number of books and journals have been rationalized and reduced. Student counselling services have been mandated, recognizing the increasing stress observed amongst medical students and residents in recent times.

REFORM IN REGULATIONS

Besides the increase in number of medical colleges, a number of regulatory reforms were undertaken to streamline the number of UG and PG seats. More than 50 crucial long pending regulatory reforms were brought in the last six years. These reforms are cross cutting and have brought changes in key areas resulting in higher number of seats being available today.

Ensuring Availability of Doctors and Specialists

Key Regulatory reforms

- Norms for setting up Medical College relaxed
- Consortium allowed to establish Medical College
- Allowing permission for lesser number of seats, if criteria for higher number of seats not met
- Teacher: Student ratio has been relaxed in PG Regulation
- Equivalence of DNB with PG as faculty
- Mandatory to start PG in 3 years from MBBS recognition
- Permission to apply for PG earlier—at the time of 2nd renewal
- ICU beds to be counted as general beds
- Starting Super-specialty Department directly within broad specialty

Rating of Medical Colleges by the Medical Rating and Assessment Board (MARB): One of the mandates of the MARB will be to rate the medical colleges on the basis of performance parameters. This will provide an informed choice to the eligible candidates and improve standards by creating a healthy competition among the medical colleges. A new element has been incorporated in the regulations outlining 'desirable' and 'aspirational' goals beyond the minimum requirements to stimulate medical colleges to try for excellence.

Task-Shifting: There is a growing need of task shifting. This shift some of the specific tasks to nursing, allied and other healthcare professionals. Reorganization of health workforce, ensuring optimum division of labour is thus achieved. The proposed National Nursing and Midwifery Commission Bill and the National Commission for Allied and Healthcare Professions Bill both provide for defining the scope of practice of the concerned professionals as well as for task shifting.

Research and Development: Strengthening research is one of the mandates of NMC. New regulations have been brought in to make online Research Methodology course compulsory for all postgraduates and all the teachers. Further the NMC will work towards promoting R&D in medical colleges by bringing in suitable regulations.

IMPACT AND OUTCOMES

The reforms and the new/restructured schemes in Medical education undertaken in last six years have yielded extraordinary results. Steps taken have not only led to significant increase in the number of the colleges but also a huge increase in the number of seats at both undergraduate and post graduate levels.

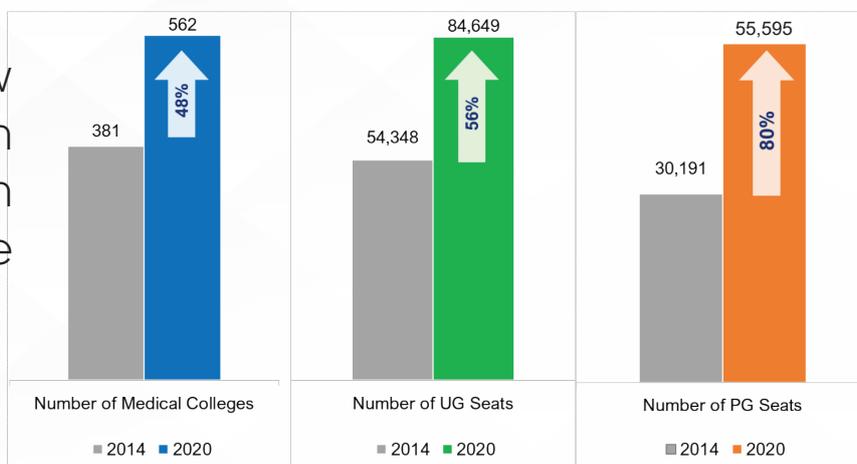
Against 381 medical colleges in 2014, today there are 562 colleges, an increase of 48% in six years. Under the Centrally Sponsored Scheme of opening

Outcome of last six years

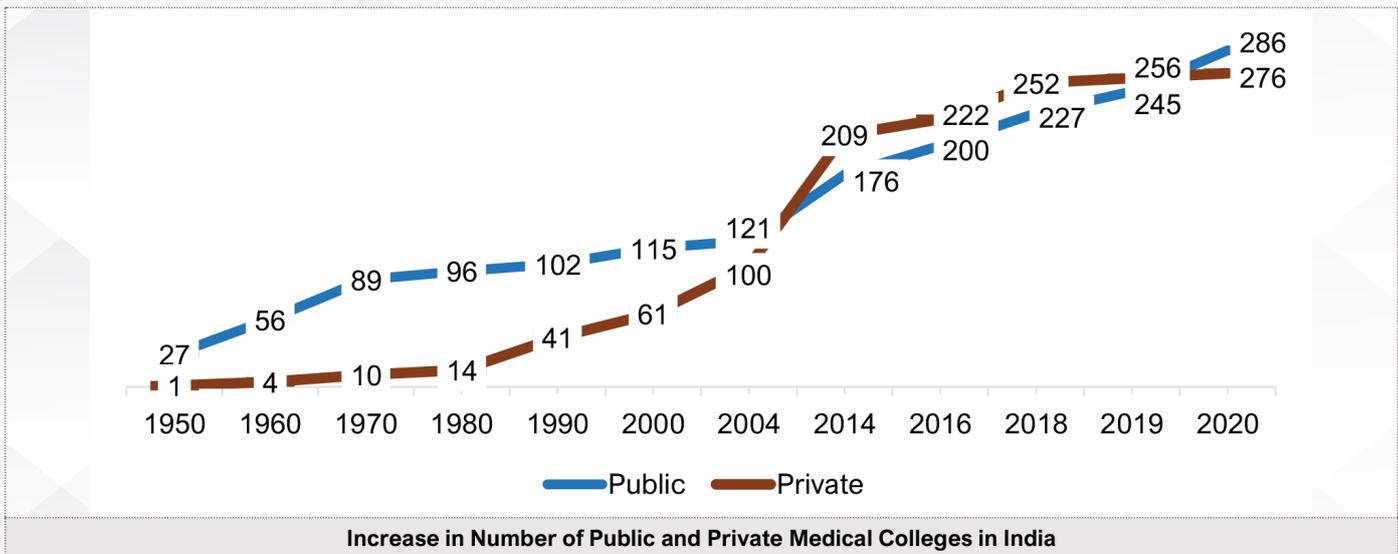
	2014	2020	Comments
Number of Medical Colleges	381	562	Increase of 48%
No. of UG Seats	54,348	84,649	Increase of 56%
No. of PG Seats	30,191	55,595	Increase of 80%

new medical college attached to the district hospital, 157 colleges have been approved so far, 47 of which are functional and 110 are expected to be functional in next two years. Among these, 40 medical colleges are in the Aspirational Districts, where there is acute need of doctors and specialists.

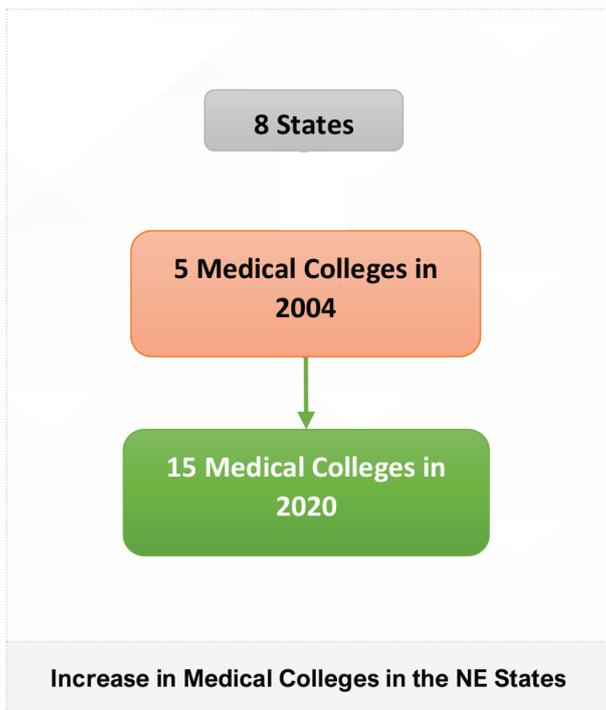
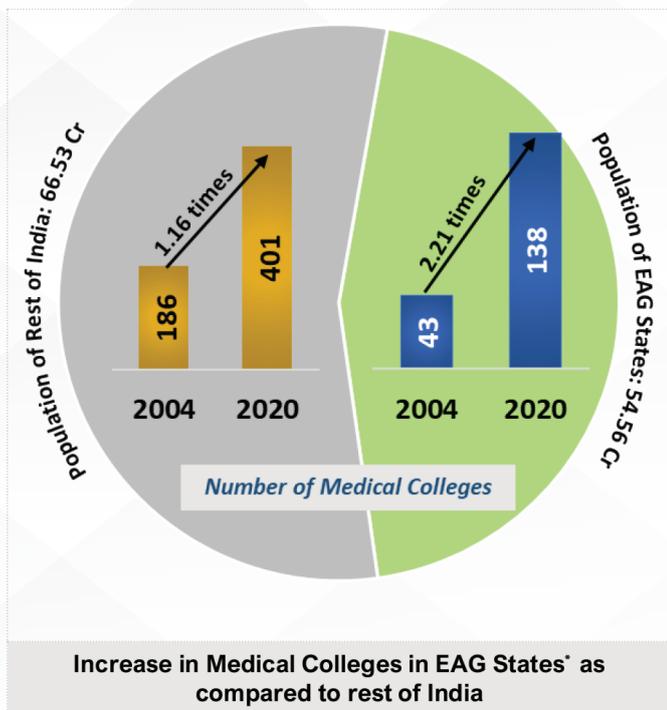
In addition, 22 new AIIMS have been sanctioned, of which MBBS classes have started in 18.



The reforms in last couple of years have witnessed unprecedented success and it is reflected in the huge increase in number of medical colleges and the transformation in Undergraduate and Postgraduate capacities



In last six years the location of the new medical colleges have been selected carefully to address the issues of regional equity.



*Empowered Action Group States (EAGS) include Bihar, Rajasthan, Jharkhand, Chattisgarh, Madhya Pradesh, Odisha, Uttar Pradesh and Uttarakhand

THE JOURNEY OF REFORMS CONTINUES

All these reforms in medical education will have long term impact on primary, secondary and tertiary care in India. Reforms will result in one lakh MBBS seats and 65,000 postgraduate seats by 2022. The key area in which reforms will continue is quality of education. Towards this end, the NMC will ensure effective implementation of competence-based curriculum in all the medical colleges, along with focus on skill-based teaching. Incentives for retention of faculty in peripheral and backward areas will be worked out. The participation of medical colleges in national health programmes will be enhanced enriching their implementation. The reforms for promotion of meritocracy and affordability of quality medical education will be strengthened.

Parallely, reforms are ongoing in the sectors of Nursing Education, Dental Education and Allied and Healthcare professions. A new Allied and Healthcare Professions Bill - the National Commission for Allied and Healthcare Professional Bill, 2020 has been introduced in the Parliament. This shall enable constitution of a National Commission and State Councils to regulate more than 50 diverse allied and healthcare professions. Similarly, on the lines of the NMC, the Dental Council of India and the Indian Nursing Council are also being reformed through new laws. This will complete the gamut of reforms in all aspects of human resources for healthcare, focusing on improved and uniform standards, resulting in better healthcare delivery for the people at large.



It is evident that a lot of health and medical education reforms have been carried out successfully over past six years.

**- Narendra Modi
Prime Minister of India**

GLOSSARY

- AIIMS** - All India Institute of Medical Sciences
- OPD** - Out Patient Department
- IPD** - In Patient Department
- PG** - Post Graduate
- NBE** - National Board of Examination
- NMC** - National Medical Commission
- MCI** - Medical Council of India
- BoG** - Board of Governors
- DNB** - Diplomate of National Board
- NEXT** - National Exit Test
- MBBS** - Bachelor of Medicines and Bachelor of Surgery
- NEET** - National Eligibility cum Entrance Test
- EAGS** - Empowered Action Group States



सत्यमेव जयते

**Ministry of Health & Family Welfare
Government of India**