



**MAHARASHTRA STATE BOARD OF NURSING AND
PARAMEDICAL EDUCATION**

महाराष्ट्र राज्य शुश्रुषा व परावैद्यक शिक्षण मंडळ



PERSPECTIVE PLAN

For the Year 2018-2023

महाराष्ट्र राज्य शुश्रुषा व परावैद्यक शिक्षण मंडळ
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EDUCATION

PRESPECTIVE-PLAN
2018-2023

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PERSPECTIVE PLAN 2018 - 2023**CONTENTS**

SR. NO.	PARTICULAR	PAGE NO
1	Introduction	3-4
2	Trends in Population Growth	5-10
3	Purpose of Perspective Plan	10
4	National Health Policy 2015, Social Aspect of Perspective Plan, Key Elements	12-15
5	Number of Nursing Institute of Maharashtra at Present	16
6	ANM/GNM Estimation of Required Number of Nursing Personnel for Future	17-21
7	Scope to Open New ANM/GNM Institution	22-25
8	Conclusion	25
9	Summary, N.B.	26
10	References, Annexure	27
LIST OF TABLES		
SR. NO.	PARTICULAR	PAGE NO
1	Demographic Profile of India and Maharashtra	8
2	List of Districts of Maharashtra- Population Census 2011	9-10
3	Region Wise Percentage Population	10
4	Region Wise Recognised Institutions for 2017-18 Maharashtra (GNM/ANM)	16
5	Region Wise Recognised Institutions for 2018-19 Maharashtra (Graduate/Post-Graduate)	16
6	ANM Estimation of Required Number of Nursing Personnel for Future	17
7	Hospital in Periphery level	18-19
8	GNM Estimation of Required Number of Nursing Personnel for Future	19
9	Health Infrastructure in Maharashtra 1981-2001	21

1. INTRODUCTION:

Maharashtra State Board of Nursing and Paramedical Education (MSBNPE) Act 2013 giving statutory power to maintain uniform standards and regulation of nursing all over the state.

Maharashtra State Board of Nursing and Paramedical education provide the education to nursing students to prepare nurses to deliver primary, secondary and tertiary care to the community and promote universal health coverage.

Universal Health Coverage (UHC) is based on all people's right to receive the maximum level of health, equality and solidarity. Nursing plays a fundamental role to achieve the target of Universal Health Coverage. Nursing has the features that potentiates its contribution for strengthening the quality of health system, playing a key role in recognizing the importance of Universal Health Coverage and its respective implementation, considering the different realities and national health needs.

The nurses act has its origin in the development of nursing education. In the past the hospitals were looked after by medical students, ward boys and ayas as there was no provision for the nursing care of the patients. Sisters of Anglican community of all saints came Bombay to work. The services of these sisters were appreciated so much that Govt. of Bombay approached community of all saints to undertake the care of all the patients. The request was accepted and trained sisters were sent to patients' home. Soon the necessity of training women of the country was felt and steps were taken to established the training schools for nurses by all saint's sisters.

In 1902 many of the hospitals in Bombay started nursing association which were intended to provide additional facility for the training of local nurses.

In 1909 Bombay presidency nurses association was established in order to combine different associations into one. It started functioning from 09/04/1911. Then with the progress of nursing education, the need was felt to standardised the nursing education to regularize the registration of nurses. Bombay nurses midwives and health visitor was passed by government of Bombay in 1935 and the funds and functions of Bombay presidency nurses association were taken over by the Bombay nurses midwives and health visitor council. After independence this act was revised in 1954 and new council was constituted.

Two registration council were functioning in the state of Maharashtra i.e. Vidarbha Nurses Registration council and Maharashtra Nursing Council (Bombay area) up to 15/02/1967.

Both the council were combined by the unification Act of 1966 and is now named as Maharashtra Nursing Council and present jurisdiction of council is entire Maharashtra and act as a liaison in both the state i.e. Maharashtra & Goa.

Goa Nursing Council Act passed and Goa Nursing Council got separated from Maharashtra Nursing Council and started functioning separately since 2013.

In 2013, Maharashtra State Board of Nursing and Paramedical Education Act (MAH Act No. XXIII of 2013) passed and Maharashtra State Board of Nursing and Paramedical Education started functioning from 9th February 2018. The Board has taken over all the functions of Maharashtra Nursing Council except the Registration of Registered Nurses & Registered Midwives.

QUALITY OF NURSING

The plan process to take a review and to analyze the Nursing Colleges/ Institution on following criteria and accreditation of institution considering the following.

- a) Curricular Aspects.
- b) Teaching-Learning and Evaluation.
- c) Basic Infrastructure and Learning Resources.
- d) Student support and Progression.
- e) Organization and Management.
- f) Healthy and Ethical Practices.

Studies on the basis of above criteria prove that, the accredited nursing colleges are superior than in general.

- g) Satellite connectivity of the Board:

Efforts shall be made for making all affiliated colleges and institutions be part of National Mission on education through information and Communication Technology project. It is to be provided high quality, personalized and interactive knowledge modules over the internet / intranet for all the learners and colleges.

2. TRENDS IN POPULATION GROWTH:

Maharashtra State is over burden due to migrating population those are coming for earning bread and butter. Metro political cities are becoming overcrowded hence health problems on the society varies from region to region in the state.

Burden of health problems on the society varies from region to region in the state. The tribal districts are loaded with genetic disorders, inherited diseases, malnutrition, infestation and infectious diseases. Advanced districts shows different problems like industrial hazards, pollution, psychiatric ailments, reproductive tract infection, HIV/AIDS and host of degenerative disorders. In addition, urban areas suffer due to problems of slums, overcrowding, want of civic amenities, growing crimes etc. child abuse and atrocities against women are growing in all areas. Many parts of the state even now do not have adequate facilities for maternal and child health. There is mal distribution of health service facilities including doctors, nurses and para-clinical personnel. The growth rate of population of Maharashtra was over 22.73% per year during 1991 to 2001 census which has declined to 15.99% during 2001 to 2011 census.

DEVELOPMENT BOARD:

By an act of parliament, Maharashtra is divided into three development Board Regions for the convenience of economic, industrial and educational growth, namely

- 1) Rest of Maharashtra
- 2) Marathwada and
- 3) Vidarbha

During the period from 2001 to 2011, the population of Maharashtra has grown from 96,878,627 to 112,374,333 i.e an increase by 15,494,345, registering an average growth rate of 15.99%.

It is noted from the data given in State Statistical Abstract of Maharashtra, published by Directorate of Economics and statistics, Government of Maharashtra, Mumbai that the average growth rate is 14.51% for the decade 2001 – 2011, it has not been uniform for all the districts has grown faster than the others.

The population of municipal corporations of Maharashtra state which is calculated as per the growth rate previous 2 census i.e. 2001 & 2011, shows that the Akola Municipal corporation has recorded lowest growth rate of population where as the Pune & Pimpri chinchawad Municipal corporation have recorded highest growth rate of population.

The density of population per sq.km gives more realistic picture of population distribution in the state. It is highest in Mumbai suburban i.e. 20980 per sq.km and lowest in Gadchiroli i.e. 74.00 per sq.km.

In addition to the population, health needs of a society are also determined by population of poor and weaker section e.g. schedule caste, schedule tribe, population of vulnerable section of society e.g. population of children below 6 years, population of pregnant women and population of old. Per capita income also needs consideration.

ROLE OF MEDICAL EDUCATION AND NURSING EDUCATION IN IMPROVING HEALTH OF PEOPLE:

At this juncture it may be pertinent to know some facts about community health.

As per WHO health organization (1948) “Health is a state of complete physical, mental and social wellbeing and not merely an absence of disease or infirmity”

WHO definition envisages three specific dimensions – the physical, the mental and the social. Many more may be cited, viz. spiritual, emotional, vocational, philosophical, cultural and so on. Health in the board sense does not merely means absence of disease or provision of diagnostic, curative and preventive services. It Includes a state of physical, mental and social “wellbeing”. The subject component of well-being is referred as “quality of life”. Certain important indicators are now frequently used to measure quality of life. The “physical quality of life index” is one. It consolidates three indicators viz. infant mortality, life expectancy at age one and literacy. The second is Human Development Index. Human Development Index is a composite index combining indicators representing three dimensions longevity, knowledge and income.

In 1978, at the Alma Ata-International conference, WHO declared “Health for All” through primary health care as the major social goal. The Alma ata conference called on all governments to formulate national policies, strategies and plan of action to launch and sustain Primary Health Care as national health system.

Our national health policy, echoes the WHO call for “Health for all” and the Alma Ata declaration. It has laid down specific goals to bring down infant mortality, to raise life expectancy, to reduce crude death rate, to reduce birth rate and to reduce net reproduction rate.

NURSING EDUCATION:

Nurse education consists of the theoretical and practical training provided to nurses with the purpose to prepare them for their duties as nursing care professionals. This education is provided to nursing students by experienced nurses and other medical professionals who have qualified or experienced for educational tasks. Most countries offer nurse education courses that can be relevant to general nursing or to specialized areas including mental health nursing, paediatric nursing and post-operative nursing. Courses leading to autonomous registration as a nurse typically last four years. Nurse education also provides post-qualification courses in specialist subjects within nursing.

NURSES: POPULATION RATIO

Nurses: population ratio is nebulous indicator for deciding the need of nursing care.

However, to calculate the number of Nursing colleges to be permitted in the region or district, on the basis of the Nurses population ratio during the year 2018-2023, may not be ideal because nurses population ratio stated in various books, journals, newspapers or World Health Organization is rough and crude. The present nurse's population ratio is based on overall population. There are differences in urban and rural population. The ratio is still different for Hillary/tribal population. The spread of nurses in the population after completing nursing education depends on many factors. The reason given for this is that out of the Nurses registered to the Maharashtra Nursing Council and Indian Nursing Council, some go abroad for higher education or for better prospectus, some accept government jobs and some become teachers remaining enter in to private hospital nursing practice in health care delivery service or in urban areas. All these factors are not with in the purview of the Board.

Besides this, there are many factors that need to be considered like geographic locations of the nursing institutes, facilities available for proper living, connectivity by road and railway, social factors, educational status of the population, availability of teachers etc. while considering a proposal to start a new Nursing college. Thus, the use of nurses: population ratio is a guide for establishment of Nursing Colleges has many limitations.

PRIMARY HEALTH CARE INCLUDES:

- a) Education about prevailing health problems.
- b) Promotion of food supply and proper nutrition.
- c) Adequate supply of safe water and basic sanitation.
- d) Maternal and child health care including family planning.
- e) Immunization against infectious diseases.
- f) Prevention and control of endemic diseases.
- g) Appropriate treatment of common diseases and injuries.
- h) Provision of essential drugs.

TABLE NO 1: Demographic Profile of India And Maharashtra

TABLE NO 2: List of Districts of Maharashtra – Population Census 2011

TABLE NO 3: Region Wise Percentage Population

Detail population for the state of Maharashtra is explained further.

TABLE NO 1

DEMOGRAPHIC PROFILE OF INDIA AND MAHARASHTRA SHOWS THE FOLLOWING

Sr. No	Description	India	Maharashtra
1	Total population	1210193422	112374333
2	Area in sq.kms	32,87,240	3,08,613
3	Crude birth rate	21.4 births/1,000 population (est)	16.5
4	Crude death rate	7.0 deaths/1,000 population (est)	6.2
5	Annual growth rate	1.25% (2013)	7.55%
6	Rural population	68% (2014 – 15)	54.78% (2011)
7	Adult literacy rate	75%	82.91%
8	Population above 65 years	5.3%(est)	9.3% (above 60)
9	Population below 15 years	31.2%	27.2%
10	Sex ratio female per 1000 male	943	925
11	Population density per sq.km	382	365
12	Total fertility rate	2.3 children born/ woman (est)	2.2 children born/ woman (est)

Table No 1 explains about the Demographic Profile of India and Maharashtra shows the overall comparison of population between India and Maharashtra and gives us the clear idea.

In September 2000, Millennium summit in New York declared the Millennium Development Goals (MDGs) which place health at the heart of development and represent commitment by the Governments. The health related NDGs (National Development Goals), important for our country are as under:

MILLENNIUM DEVELOPMENT GOALS:

1. To eradicate extreme poverty and hunger
2. To achieve universal primary education
3. To promote gender equality and empower women
4. To reduce child mortality
5. To improve maternal health
6. To combat HIV/AIDS, malaria, and other diseases
7. To ensure environmental sustainability
8. To develop a global partnership for development
9. UN Goals is a global project dedicated to spreading knowledge of MDG through various internet and awareness campaigns.

TABLE NO 2**POPULATION IN DISTRICTS OF MAHARASHTRA**

The detail analysis of population census 2011 published by Govt. of India for Maharashtra state reveal that population of Maharashtra has increased by 15.99% in this decade compared (2001 – 2011) to past decade (1991 – 2001). The density of Maharashtra state in the current decade is 946 per sq mile.

Maharashtra is an state of India with population of Approximate 11.24 Cr.

The population of Maharashtra state is 112,374,333

The density of Maharashtra state is 365 per sq km.

Maharashtra state is spared over 307,713 sq km.

List of Districts of Maharashtra – Population Census 2011

Sr. No	District	Population	Increase	Sex Ratio	Literacy	Density
1	Thane	11,060,148	36.01%	886	84.53%	1157
2	Pune	9,429,408	30.37%	915	86.15%	603
3	Mumbai Suburban	956,962	8.29%	860	89.91%	20980
4	Nashik	6,107,187	22.30%	934	82.31%	393
5	Nagpur	4,653,570	14.40%	951	88.39%	470
6	Ahmednagar	4,543,159	12.44%	939	79.05%	266
7	Solapur	4,317,756	12.16%	938	77.02%	290
8	Jalgaon	4,229,917	14.86%	925	78.20%	360
9	Kolhapur	3,876,001	10.01%	957	81.51%	504
10	Aurangabad	3,701,282	27.76%	923	79.02%	366
11	Nanded	3,361,292	16.86%	943	75.45%	319
12	Mumbai city	3,085,411	-7.57%	832	89.21%	19652

13	Satara	3,003,741	6.93%	988	82.87%	287
14	Amravati	2,888,445	10.79%	951	87.38%	237
15	Sangli	2,822,143	9.24%	966	81.48%	329
16	Yavatmal	2,772,348	12.78%	952	82.82%	204
17	Raigarh	2,634,200	19.31%	959	83.14%	368
18	Buldhana	2,586,258	15.85%	934	83.40%	268
19	Beed	2,585,049	19.61%	916	76.99%	242
20	Latur	2,454,196	17.97%	928	77.26%	343
21	Chandrapur	2,204,307	6.43%	961	80.01%	193
22	Dhule	2,050,862	20.08%	946	2.80%	285
23	Jalna	1,959,046	21.46%	937	71.52%	254
24	Parbhani	1,836,086	20.19%	947	73.34%	320
25	Akola	1,813,906	11.27%	946	88.05%	295
26	Osmanabad	1,657,576	11.50%	924	78.44%	219
27	Nandurbar	1,648,295	25.66%	978	64.38%	277
28	Ratnagiri	1,615,069	-4.82%	1122	82.18%	197
29	Gondiya	1,322,507	10.14%	999	84.95%	253
30	Wardha	1,300,774	5.18%	946	86.99%	206
31	Bhandara	1,200,334	5.65%	982	83.76%	294
32	Washim	1,197,160	17.34%	930	83.25%	244
33	Hingoli	1,177,345	19.27%	942	78.17%	244
34	Gadchiroli	1,072,942	10.58%	982	74.36%	74
35	Sindhudurg	846,651	-2.21%	1036	85.56%	163

TABLE NO 3

REGION WISE PERCENTAGE POPULATION

Sr. No	Development Board	No Of Districts in the Board	% to total Population of State			Population Census		
			Estimated			Estimated		
			Year 2011	Year 2016	Year 2021	Year 2011	Year 2016	Year 2021
1	Rest of Maharashtra	17	62.75	63.00	63.25	70629910	76945593	83202596
2	Marathwada	08	16.70	17.00	16.62	18731872	20799021	22482638
3	Vidarbha	11	20.55	20.00	20.13	23012551	24362519	25695122
Total		36	100.00	100.00	100.00	112374333	122107133	131380356

3. PURPOSE OF PERSPECTIVE PLAN OF MAHARASHTRA

While making the perspective plan, changing concept of health, health care delivery system, National Health Policy, Social aspect and National Rural Health Mission are taken into consideration. Nurse patient ratio should be maintained in Primary Health care Centre, Primary Hospital and Tertiary Hospital.

Objective of perspective plan: - “In good old time, education was considered as charity or philanthropy. Gradually it became an occupation. Some judicial dicta hold it as an industry.” As of now, imparting education and particularly nursing profession education has come to be a means of livelihood for some people and a mission in life for some altruists. Thus, private nursing organization have entered in.

Purpose of Perspective Plan: -

1. To Establish new nursing institutions of diploma and post diploma courses such as ANM/GNM on the basis of the need of district as per the region.
2. To establish new nursing institution in the districts of unreserved and underdeveloped region, on priority basis.
3. It proposes to strengthen system for making existing institutions economically viable, socially relevant, academically sound and creative.
4. It proposes to strengthen the enhancement of academic standards of existing institutions by providing adequate input in the terms of training and provision of expertise.
5. It proposes to evaluate institutions on the following criteria and proposed to give permission considering the following: -
 - a) Infrastructure and learning resources
 - b) Student support and progression
 - c) Organization and management and welfare
 - d) Curricular aspects
 - e) Teaching learning evaluation
6. It proposes to strengthen the quality assurance and continuing professional development in nursing education.
7. To improve the standards of Primary and Tertiary Health care sector.

4. NATIONAL HEALTH POLICY 2015

1. This National Health Policy addresses the urgent need to improve the performance of health systems. It is being formulated at the last year of the Millennium Declaration and its Goals, in the global context of all nations committed to moving towards universal health coverage. Given the two-way linkage between economic growth and health status, this National Health Policy is a declaration of the determination of the Government to leverage economic growth to achieve health contributes immensely to improved productivity as well as equity.
2. The National Health Policy of 1983 and National Health policy of 2002 have served us well, in guiding the approach for the Health Sector in the Five year plans and for different schemes, now 13 years after the last health policy, the context has changed in four major ways. Firstly-Health priorities are changing. As result of focused action over the last decade we are projected to attain Millennium Development Goals with respect to maternal and child mortality. Maternal mortality now accounts for 0.55% of all deaths and 4% of all female deaths in the 15 to 49-year age group. There is still 46,500 maternal deaths which is for more and demands that the commitments to further reduction must not flag.
3. The Primary aim of the National Health Policy, 2015, is to inform, clarify, strengthen and prioritize the role of the Government in shaping health systems in all its dimensions-investment in health, organization and financing of healthcare services, prevention of diseases and promotion of good health through cross sectoral action, accesses to technologies, developing human resources, encouraging medical pluralism, building the knowledge base required for better health, financial protection strategies and regulation and legislation for health.
4. The almost exclusive focus of policy, 2015 is to inform clarify, strengthen and prioritize the role of the government in shaping health system in all its dimensions-investment in health organization and financing of health care services, prevention of diseases and promotion of good health through cross sectoral action access to technologies, developing human resources, encouraging medical pluralism, building the knowledge base required for better health, financial protection strategies and regulation and legislation for health. Disease burden while maternal and neonatal alignments contribute to 13.8%. Non-communicable diseases (39.1%) and injuries (11.8%) now constitute the bulk of the country's morbidity burden. National Health Programmes for non-Communicable diseases are very limited in coverage and scope, except perhaps in the case of blindness control programme.

5. To expand the availability of nurses the Ministry would encourage a nursing school in every large district or cluster of districts of about 20 to 30 lakh population. Building up quality in nursing education would require not only a HR policy for the faculty but peer trainers who would come and work with them for two or three years to build up practice and behavioural norms which are benchmarked with the best nursing schools. Centres of excellence for nursing and Allied Health Sciences would also be established in each state. Nursing cadre within public services requires both career progression opportunities as well as specialization in areas like public health nursing and clinical specialities. States which have adequate nursing institution may explore gradually shifting to three-year nurses even at the sub-centre level to support the implementation of the comprehensive primary health care agenda.

SOCIAL ASPECT RELATED TO PERSPECTIVE PLAN

This perspective plan is prepared for nursing educational development. this plan based on following aspects.

1. Population Growth: As per 2011 census the population of India is 112,374,333 million and population (2016) of Maharashtra is 12,9130,500 Growth rate is 9.42%. The density of population per sq.km. gives more realistic picture of population distribution in the state. It is highest in Mumbai city and lowest in Gadchiroli, hence perspective plan is not applicable in Mumbai.
2. Schedule Caste: Even after 58 years of benefits of reservation, large number of schedule caste people continue to be backward, therefore health needs of these section are much higher as compared to other sections of society.

The distribution of schedule caste population varies from region to region. Average percentage of schedule cast population is highest in Marathwada region especially in Latur, Nanded and Osmanabad districts. In Vidarbha also the population of schedule caste is high especially in Amravati , Nagpur, Washim and Chandrapur & Gondia so these districts needs to produce more health manpower and people should get more opportunities for educational development. High population of schedule caste is also observed in Solapur district.

3. Schedule Tribe : They have always lived away in isolation in forest hilly areas and in hospitable lands. These areas lack in roads schools, electricity, hospitals and other civic amenities. They are economically poor, educationally backward and deeply tradition bound. Apart from malnutrition water borne diseases, communicable diseases, they also suffer from displacement . Their health needs deserves special consideration, Average

percentage and schedule tribe is highest in Nandurbar, Gadchiroli, Dhule, Nashik, Yeotmal, Nagpur, Gondia, Thane, Raigad, Jalgoan, Hingoli, Wardha, Amravati, Chandrapur, Bhandara district, hence need to develop more opportunities.

4. Literacy rate : Literacy is one of the important parameters and female literacy is most sensitive parameter. Literacy reflects quality of life of a district. It is very important that female literacy rate in the district should be considered for extending health care facilities. District with low female literacy rate need more health care facilities & educational opportunities as compared to highly literate area. Average female literacy rate below 55 indicate special attention, Average female literacy rate is lower in Jalna, Gadchiroli, Hingoli, Parbhani, and Nandurbar district. To empower the women, it is social responsibility of nursing profession.

KEY ELEMENTS OF PERSPECTIVE PLAN

1. Changing needs of health of the people, MGD goals, national health policy 2015 are taken into consideration and used as guidelines and references.
2. As per order given by the Hon'ble supreme court of India in writ petition (civil) No 350/1993 delivered on 14/08/2003. "The state government alone would be in a position to determine local needs, which may be based for instance, in the case of health personnel, on the ratio of health personnel to the ratio to the population of the state".
3. Minority organization some supreme court judgements have expressed the minority, unaided colleges do not come under the purview of perspective plan, hence any organization with minority community is having right to establish nursing school anywhere in Maharashtra.
4. There are 36 districts in Maharashtra where distribution of population density of population, Schedule caste, Schedule tribes, female literacy all is not similar. Considering all the above social facts and present no of nursing school are in districts where perspective plan can be implicated.
5. Nurse population ratio : As per World health Organization and ICN nurse population ratio is one for five hundred populations (1:500) to deserve essential (Primary Health) care.
6. As per norms of WHO 2.71 beds are required for every 1000 population, to provide Secondary, Tertiary, Speciality and Super Speciality care to the society.

7. As per WHO & ICN, it is necessary to have one nurse for four beds (1:4) to work in secondary, Tertiary and Super Speciality institutions.
8. Registration data of Maharashtra nursing council is also taken into consideration, to estimate available number of nurses in the state. This data is based on latest registration figure.
9. Present registration data means total available nurses, but it is not necessary that every registered nurse is a practitioner. Many are dormant in state or not practicing due to many reasons like retirement, chronic sickness, migration, family & personal reasons or death.

It is considered in all profession, about 20% professionals keep themselves away from profession due to all above reasons.

5. NUMBER OF NURSING INSTITUTE OF MAHARASHTRA AT PRESENT

TABLE NO 4

As per the Act 1966 this is the Region wise Recognised Institutions For 2017 – 18
(Maharashtra)

Till Date : 14/12/2017 update GNM/ANM on 09/08/2018

Sr. No	Name of the Courses	Gr.Mumbai / Intake	Mumbai/ Intake	Poona/ Intake	Nagpur/ Intake	Aurangabad /Intake	Total
1	GNM	13 (555)	56 (1575)	79 (2285)	46 (1350)	64 (1665)	258 (7430)
2	ANM	04 (100)	72 (1630)	122 (2705)	147 (3370)	140 (2900)	485 (10705)
3	B.Sc(N)	11 (435)	19 (890)	26 (1205)	17 (750)	15 (670)	88 (3950)
4	P.B.B.Sc(N)	05 (140)	10 (260)	17 (260)	05 (140)	04 (120)	42 (1215)
5	M.Sc (N)	03 (54)	05 (69)	13 (263)	04 (75)	Nil	25 (461)

The above Table No 2 explains about the region wise distribution of nursing colleges of ANM, GNM, P.B.B.Sc(N), M.Sc(N) and their intake capacity.

TABLE NO 5

Maharashtra Nursing Council, Mumbai

As per the Act 1966 this is the Regionwise Recognised Institution For 2018 – 19
(Maharashtra)

Till Date : 30/12/2018 Update Graduate and Post-Graduate On 08/01/2019

Sr No	Name Of The Course/ Intake	Gr. Mumbai/ Intake	Mumbai/ Intake	Poona/ Intake	Nagpur/ Intake	Aurangabad/ Intake	Total
1	B.Sc.(N)	12 (475)	20 (950)	30 (1615)	20 (900)	18 (820)	100 (4760)
2	P.B.B.Sc (N)	03 (80)	11 (300)	18 (565)	05 (140)	07 (190)	44 (1275)
3	M.Sc (N)	04 (69)	09 (122)	15 (305)	04 (75)	01 (25)	33 (596)

The above Table No 3 explains about the region wise distribution of nursing colleges B.Sc(N), P.B.B.Sc(N), M.Sc(N) and their intake capacity.

6. ANM/GNM ESTIMATION OF REQUIRED NUMBER OF NURSING PERSONNEL FOR FUTURE

ANM ESTIMATION OF REQUIRED NUMBER OF NURSING PERSONNEL FOR FUTURE

Present population of India is 1337221378 (1.33 billion). More than 50% India's current population is below the age of 25 and over 65% below the age of 35. About 72.2% of the population lives in some 6,38,000 villages and the rest 27.8% in about 5480 towns and urban agglomeration. The Maharashtra is second most populous state of India, which has growth rate of 9.42% as per available data of 2016, current population of Maharashtra is 12,9,130,500

TABLE NO 6

ANM ESTIMATION OF REQUIRED NUMBER OF NURSING PERSONNEL FOR FUTURE

a)	Estimated Population of Maharashtra (2016)	12,91,30,500
b)	Required number as per 1:500 WHO & ICN	2,58,261
c)	Total requirement of nurses till date	2,58,261
d)	Total registered nurses in MNC ANM Registered Nurses GNM Registered Nurses	2,13,000 87,158 1,19,504
e)	Total No of Student Passing in 5 yrs. No of ANM student passing out No of GNM student passing out	10705 7430

ANM

NURSE POPULATION RATIO FOR PRIMARY HEALTH CARE: As per World Health Organization (WHO) and ICN nurse population ratio is **One Nurse is for five hundred population (1:500) to deserve essential (Primary Health) care.**

The above table explains about the Population of Maharashtra State which is 12,91,30,500 if we calculate as per 1: 500 ratio we required 2,58,261 Nurses for providing primary health care services. To get the exact no of required Nurses for primary health care services we need to deduct total Registered ANM Nurses and 50% GNM Nurses which is already working and providing health care services at periphery level, ANM works at periphery level, they provide mainly Maternal, Child health and preventive aspect of health care system and In rural health care system GNM are posted in primary health centre, Community health centre, Subcentre,

District and Subdistrict hospital. At periphery level GNM also works as supervisor to evaluate health care needs which is provided by LHV (Lady Health Visitor) and ANM nurses, therefore it is important for us to deduct this no of nurses to get the exact no of required nurses, which is 87,158 (Total ANM Registered) and 59,752 (50% of GNM Registered) respectively. Therefore, the total no is $(2,58,261 - 87,158 - 59,752 = 1,11,357)$

To get the more exact no we have to deduct the Total output of ANM student nurses in five year which is $(10705*5)$ and 50% output of GNM student nurses in five years $(7430/2*5)$ which is $(1,11,357 - 53,525 - 18,575 = 39,257)$ this $(39,257)$ we may further need to bifurcate in to 75% $(29,442)$ and 25% (9814) respectively to fulfil the requisite backlog of the Nurses we can take up to 75% nurses of ANM and 25% nurses of GNM who will provide primary health services, as per available institute in the current scenario growth rate factor which is proposed to grow continuously and health needs of the population in rural area (i.e communicable diseases, natural calamities, disasters and medical emergencies), we can take upto only 10% of no of 75% which is $(29,442*10/100 = 2944)$ this no we have to further divide into minimum intake of student capacity per institute which is 40seats therefore $(2944 / 40 = 74)$

We can open up to 74 Institutes of ANM this no can decrease or increase as per the demand of the population, this is the estimated calculation which is made on tentative figures of current scenario.

This estimated no of Institute to be opened is calculated by taking following factors into consideration.

1. Increased need of Nurses in Primary Health Centre and Subcentres.
2. No of Nurses needed in District and subdistrict Hospital.
3. No of Non-Working Nurses.
4. Less no nurses working at grass root level.
5. Hierarchy of Nurses

TABLE NO. 7

HOSPITALS IN THE PERIPHERY LEVEL

Hospitals	Sanctioned	Available Bed strength
District Hospitals	23	7871
a) Sub District Hospitals (100 Bedded)	29	2900
b) Sub District Hospitals (50 Bedded)	60	3000
Women Hospitals	13	1570
General Hospitals	6	660
Other Hospital	1	50

Rural Hospital (30 Bedded)	361	10830
Regional Referral Services Hospitals	2	200
Total	495	27081

GNM ESTIMATION OF REQUIRED NUMBER OF NURSING PERSONNEL FOR FUTURE

Present population of India is 1337221378 (1.33 billion). More than 50% India's current population is below the age of 25 and over 65% below the age of 35. About 72.2% of the population lives in some 6,38,000 villages and the rest 27.8% in about 5480 towns and urban agglomeration. The Maharashtra is second most populous state of India, which has growth rate of 9.42% as per available data of 2016, current population of Maharashtra is 12,9,130,500

TABLE NO 8

GNM ESTIMATION OF REQUIRED NUMBER OF NURSING PERSONNEL FOR FUTURE

a)	Estimated Population of Maharashtra (2016)	12,91,30,500
b)	Required number as per 1000: 2.71 Beds as per norms of Delhi Hospital	3,49,943
c)	Total requirement of nurses as per 1: 3 Nurse Patient Ratio (i.e. One Nurse for Three Beds)	1,16,647
d)	Total registered nurses in MNC GNM Registered Nurses B.Sc. Registered Nurses	2,13,000 1,19,504 31,436
e)	Total No of Student Passing in 5 yrs. No of GNM student passing out No of BSc student passing out	7430 4760

HOSPITAL BED POPULATION RATIO: As per norms of WHO 5 beds for 1000 population but we have considered 2.71 beds are required for every 1000 population, to provide secondary, tertiary, speciality and super speciality care to the society. As per WHO & ICN, it is necessary to have one nurse for three beds (1:3) to work in secondary, Tertiary & super speciality institutions.

Considering the Maharashtra state approximate population for the year 2016 is 129130500. We can calculate total no. Hospital beds required for Maharashtra are $129130500/1000 = 3,49,943$ beds. Thus, as per the norms of ICN and WHO Nurse – hospital beds ratio is 1 Nurse for 3 hospital beds (1:3). Thus, the total nursing manpower required for Maharashtra as per

Nurse-Hospital beds ratio is $3,49,943/3 = 1,16,647$. It means total 1,16,647 nurses are required for secondary and tertiary care hospital.

To get the total no of Nurses we need to deduct the 50% GNM Registered Nurses because as per the ANM plan 50% of GNM nurses already providing services to primary health care which is (59,752) and total Registered BSc Nurses the main reason of deducting B.Sc. is many of B.Sc. nurses works as a sister tutor in Nursing Institute, most of the B.Sc. nurses for future

and professional growth they go to abroad for working purpose, go for further post-graduation studies, working as leadership post like (Nursing executives, Nursing superintendent, Nursing Director, and many leadership post) and many of them already providing care in Multispeciality and Super speciality Hospitals, which is (31,436) therefore $(1,16,647 - 59,752 - 31,436 = 25,459)$ from the current value we may further deduct 50% of total GNM output (18575) the need for this 50% deduction because we have already utilised 50% of GNM nurses for primary health sector which is $(25459 - (7430/2*5) = 6884)$ this is the total no of nurses required for providing care to the secondary and tertiary care. we have to divide this by minimum student intake capacity per institute which is 40seats $(6884 / 40 = 172)$

We can open up to 172 Institute of GNM this no can decrease or increase as per the demand of the population, this is the estimated calculation which is made on tentative figures of current scenario.

This estimated no of Institute to be opened is calculated by taking following factors into consideration

1. Disaster which can take place at any time.
2. No of Beds increased in the future.
3. Nurses Turnover in Maharashtra.
4. Increased Demand for Nurses in State of Maharashtra.

TABLE NO 9

HEALTH INFRASTRUCTURE IN MAHARASHTRA 1981 – 2001

	1981	1986	1991	1995	2001
Hospital	968	1545	2104	4912	3446
Urban %	89.0	89.1	83.6	88.27	89.7
Private %	68.0	72.6	62.7	61.23	87.7
Dispensaries	3139	7259	9202	8320	5852
Urban %	63.6	90.2	91.3	83.89	57.3
Private %	47.4	79.5	82.4	90.14	86.16
Beds	71294	93938	113838	129229	128076
Urban %	91.5	91.7	89.0	82.27	92.8
Private %	37.4	38.4	34.1	47.82	37.3

This plan is for 2018 – 23 where backlog of staff nurses needs to be fulfilled by maintaining WHO Criteria. Therefore, certain districts remain unattended always. Because of the above reasons, in each region two or three districts, which are economically backward, having more tribal population, not a single college came up during First and Second Perspective plan. As per our one of the objectives is “To promote equitable distribution of facilities of Health Sciences Education”. In view of this, it is appropriate to consider the deficit district wise instead of region wise. The distribution of Nursing colleges/institutions should be district wise is thus more suitable for consideration of equity and training colleges of nursing to maintain equitability.

SCOPE FOR NEW GNM NURSING COLLEGES					
Sr.no.	District of Maharashtra	Population	Present number of GNM school	Scope to open new nursing school	Justification
1	Mumbai	13373271	13	11	Highest density
2	Thane	11525597	11	8	High density ST population area
3	Palghar	68930	2	5	Less no of Nursing school High ST population Backward area
4	Raigad	3099649	5	4	College deficiency ST Population area
5	Sindhudurg	1315100	5	5	College deficiency Backward area
6	Ratnagiri	2080518	6	4	College deficiency Backward area
7	Pune	9894857	21	8	High density
8	Satara	3469190	7	4	College Deficiency
9	Sangli	3287592	9	4	College Deficiency
10	Kolhapur	4341450	9	5	College Deficiency
11	Solapur	4783205	8	5	College deficiency SC Population
12	Nasik	6572636	19	6	High density ST population area
13	Dhule	2516311	3	4	College Deficiency ST Population area Backward area Low literacy area
14	Ahmednagar	5008608	25	4	Moderate density
15	Jalgaon	4695366	2	5	Moderate density College deficiency
16	Nandurbar	2113744	3	5	College deficiency High ST Population area Backward area Low literacy area
17	Aurangabad	4166731	7	4	Moderate density College deficiency
18	Nanded	3826741	8	4	College deficiency ST Population area
19	Beed	3050498	15	3	Backward area
20	Latur	2919645	16	3	Backward area
21	Parbhani	2301535	6	4	College deficiency Backward area Low literacy area

22	Hingoli	1642794	1	4	College deficiency ST Population area Backward area low literacy area
23	Osmanabad	2123025	6	5	College deficiency Backward area
24	Jalna	2424495	5	4	College deficiency Backward area low literacy area
25	Nagpur	5119019	7	7	Highest density College deficiency SC/ST population area
26	Wardha	1756223	4	5	College Deficiency Backward area
27	Bhandara	1665783	4	4	College Deficiency Backward area ST Population area
28	Gondia	1787956	3	4	College Deficiency Backward area ST Population area
29	Gadchiroli	1538391	2	4	College Deficiency High ST Population area Backward area Low literacy area
30	Chandrapur	2669756	5	5	College Deficiency High ST Population area Backward area
31	Amaravati	3353894	4	7	College Deficiency SC\ST Population area Backward area
32	Yavatmal	3237797	4	7	College Deficiency High ST Population area Backward area Low literacy area
33	Akola	2279355	7	4	College Deficiency
34	Washim	1662609	2	3	College Deficiency Backward area
35	Buldana	3050498	4	4	College Deficiency Backward area
			Total 258	Total 172	

SCOPE FOR NEW ANM NURSING COLLEGES

Sr. no.	District of Maharashtra	Population	Present number of ANM school	Scope to open new nursing school	Justification
1	Mumbai	13373271	4	5	High density
2	Thane	11525597	7	4	High density
3	Palghar	68930	2	5	Less no Nursing school ST Population area
4	Raigad	3099649	6	3	College deficiency
5	Sindhudurg	1315100	8	3	College deficiency
6	Ratnagiri	2080518	6	3	High density
7	Pune	9894857	25	2	High density
8	Satara	3469190	12	1	
9	Sangli	3287592	21	1	
10	Kolhapur	4341450	21	1	
11	Solapur	4783205	13	1	
12	Nasik	6572636	29	2	High density
13	Dhule	2516311	6	3	College deficiency
14	Ahmednagar	5008608	30	2	Moderate density
15	Jalgaon	4695366	6	3	College deficiency
16	Nandurbar	2113744	1	5	College Deficiency ST Population area
17	Aurangabad	4166731	24	1	
18	Nanded	3826741	23	1	
19	Beed	3050498	24	1	
20	Latur	2919645	26	1	
21	Parbhani	2301535	20	1	
22	Hingoli	1642794	7	3	College deficiency
23	Osmanabad	2123025	10	1	
24	Jalna	2424495	6	3	College deficiency
25	Nagpur	5119019	25	2	High density
26	Wardha	1756223	19	1	
27	Bhandara	1665783	11	1	
28	Gondia	1787956	14	1	

29	Gadchiroli	1538391	4	3	College deficiency ST Population area
30	Chandrapur	2669756	8	1	
31	Amaravati	3353894	21	1	
32	Yavatmal	3237797	20	1	
33	Akola	2279355	9	3	
34	Washim	1662609	3	3	College deficiency
35	Buldana	3050498	13	1	College deficiency
			Total = 484	Total = 74	

CONCLUSION:

To meet the health needs of the Rural, Primary, Secondary and Tertiary health care of the population.

Thus, the plan was established using following steps.

- a) Table No 1 shows the population of India and Maharashtra which helps to identify the need to meet the health care needs
- b) Table No 2 and 3 shows the Region wise permitted institutes by Maharashtra nursing council and no of nurses pass out per annum
- c) Table No 4 shows detail population Maharashtra districts wise which gives the clarity about no of nursing institute which can be opened to meet the health needs.
- d) Table No 5 ANM estimation of required number of nursing personnel for future
It shows no of Nurses presently working who are registered with Maharashtra Nursing Council, and output of the nursing students in coming 5years. But current no of nurses will not be sufficient to meet the health need of the population.
- e) Table No 6 GNM estimation of required number of nursing personnel for future
It shows no of Nurses presently working who are registered with Maharashtra Nursing Council, and output of the nursing students in coming 5years. But current no of nurses will not be sufficient to meet the health need of the population.
- f) Maharashtra State Board of Nursing and Paramedical Education took the step and formulated committee and meeting was held with the expertise people to formulate Perspective plan for the year 2018 – 23.
- g) The expertise discussed and gave their valuable suggestions to fulfil the backlog of nurses and as per the calculation made the need was identified to open the no of Nursing colleges to meet the health need of the population.

SUMMARY

1. The perspective plan is prepared to fulfil the backlog of the nurses, the backlog of nurses is calculated as per the nurses who required to provide care in primary, secondary and tertiary health sector.
2. Considering no. of registered nurses with Maharashtra Nursing Council is identified from 20% deduction is done on the basis of Non-practicing nurses, Retired nurses, Nursing teacher, Directors, Superintendents who are physically not providing care at bedsides, nurses who have gone for professional upliftment to abroad countries and nurses who have gone for further qualification.
3. This plan for five years, all estimated Nursing school of ANM /GNM may not be open at the time, this schools are to open over the period five years

N. B. :

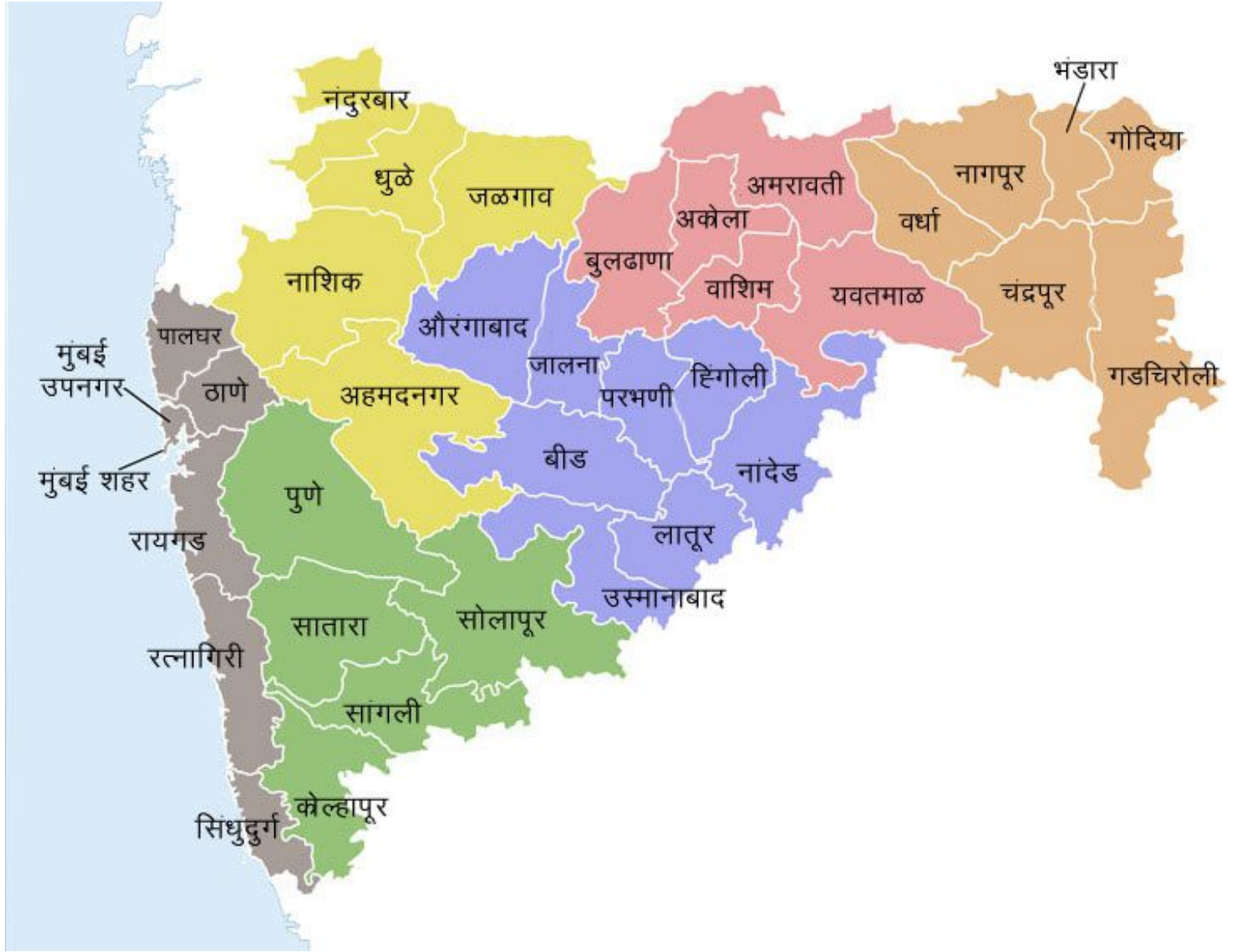
1. Proposals from State Government, Central Government, Local bodies to open new Nursing diploma schools and Proposal for Enhancement of seats, irrespective of implementation of Perspective Plan.
2. Government resumes the right to Seat Enhancement of the existing ANM/GNM course depending upon the need & capacity of the Institution and such proposals will be consider by Government of Maharashtra irrespective of implementation of Perspective Plan.
3. As per circulars from Indian Nursing Council, dated 28/02/2019 and 14/03/2019 and the National Health Mission 2017, for Nursing Profession Single Entry Level is proposed. To improve the standard of Nursing Education, to upgrade GNM nursing schools into BSc Nursing Institution and to maintain BSc Nursing as Single Entry Level is proposed. With this notification INC proposes to close existing GNM Programme from Academic year 2020-21.
4. As per Government Resolution No. NUR 2017/C.R.212/17/Shibir Karya NGP/ Edu. dated 13th July 2018, Government of Maharashtra through Maharashtra State Board Of Nursing And Paramedical Education were invited proposals for A.Y. 2018-19 for opening up new Schools for Nursing diploma courses and Enhancement of seats. These proposals would be accepted for the A.Y. 2019-20 under this Perspective Plan.

REFERENCES:

1. Maharashtra Nursing Council perspective plan 2012 – 17
2. Maharashtra Nursing Council total No of Registered Nurses
3. Maharashtra University of Health Sciences Perspective plan

Annexure :

1. Annexure I
2. Annexure II
3. Annexure III



gmm

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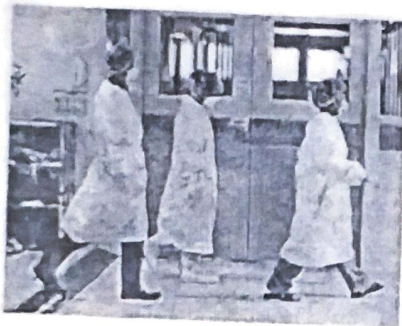
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Delhi has 2.71 hospital beds per 1,000, WHO recommends 5

PTI | Updated Jun 24 2015 08:34 PM IST

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NEW DELHI: Delhi's hospital bed to population ratio is little more than half of the WHO's recommended standard of 5 beds per 1,000 population, even though allocation to health sector under annual plans has significantly increased in the last decade.

As per the Delhi's economic survey of 2014-15, although the number of hospital beds have increased to 48,096 in 2014 from 32,941 in 2004, bed to population ratio stands at 2.71 (beds per 1,000 persons) a mere improvement from 2.25 in 2004.

Last year the ratio stood at 2.50

"The investment in health sector under annual plans has significantly increased from Rs 469.83 crore in 2004-05 to Rs 1,990 crore in 2014-15 and thus recorded an annual compound growth rate (AGCR) of 15.53 per cent," said the report tabled in the Assembly today

Around 15 Delhi government hospitals, including 200 bed hospital at Burari, 225 bed hospital at Chattarpur, 200 bed hospital at Madipur etc are under construction or under planning stage

"The number of medical institutions in Delhi has increased at a low rate in terms of number of institutions and special clinics. There are number of reasons behind slow pace of extension of new health outlets such as nonavailability of land, shortage of manpower and multiplicity of agencies, etc.



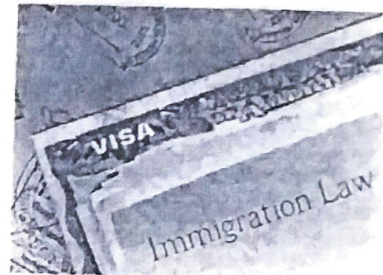
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Moreover, all the hospitals especially major hospitals in Delhi are overcrowded because of heavy patient load," stated the report.

Based on findings of 68th Round of National Sample Survey (July 2011 and June 2012) in Delhi, the average monthly consumption expenditure of a household was estimated to the tune of Rs. 15,122.

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III. Delivery of Health Care: Physical Infrastructure

The health care infrastructure in Maharashtra is generally considered to be above the national average (see Appendix I). Kerala and Gujarat are the only states, ahead of Maharashtra in bed population and hospital population ratio.

have registered a better health status than Maharashtra. (HDR 2002).

Table I: Health Infrastructure in Maharashtra 1981-2001

	1981	1986	1991	1995	2001
Hospitals	968	1545	2104	4912	3446
Urban %	89.0	89.1	83.6	88.27	89.7
Private %	68.0	72.6	62.7	61.23	87.7
Dispensaries	3139	7259	9202	8320	5852
Urban %	63.6	90.2	91.3	83.89	57.3
Private %	47.4	79.5	82.4	90.14	86.16
Beds	71294	93938	113838	129229	128076
Urban %	91.5	91.7	89.0	82.27	92.8
Private %	37.4	38.4	34.1	47.82	37.3

Source: Health Information of India, CBHI, Govt. of India, various years

Note: Hospital Figures (prior to 1997) are generally inclusive of CHCs, from 1997 excluding CHCs; Dispensaries figures (prior to 1997) are generally inclusive of PHCs, from 1997 excluding PHCs

There is a wide rural-urban gap in health infrastructure and facilities both quantitatively and qualitatively. Urban areas have a concentration of hospitals and nursing homes as well as of qualified doctors. This is equally true of the public and private sectors. As we have noted earlier, most public hospitals are in the cities, district and sub divisional towns. Similarly over 80 per cent of beds in public hospitals are in urban areas where 40 per cent of the population resides.

The situation is no different in the private sector with hospitals and beds being located mostly in cities and towns. This is in sharp contrast to Punjab and Kerala where hospital services are available in rural areas in reasonable numbers with no significant inequities between rural and urban areas. And this could be one reason why both these states

District wise differentials in access

There is wide variation across districts and regions within Maharashtra with Mumbai, Pune, Wardha and Nagpur having better population to facility ratios. (Table 3 and 4)

The bed population ratio shows (Table 3), access to inpatient care services to be relatively higher in Greater Mumbai, Pune, Amravati and Nagpur, while districts like Beed, Bhandara, Dhule, Ratnagiri, Buldhana, Latur and Kolhapur were lagging behind in access to inpatient care services. Sizeable presence of public sector was observed in Yavatmal, Thane, Satara Aurangabad and Parbhani, when compared to other districts. Since majority of health care institutions are in private sector (Table 1), it can be inferred that private sector is not that keen in participating in delivery of health care services



महाराष्ट्र परिचर्या परिषद MAHARASHTRA NURSING COUNCIL



१ वा मजल, बांभे म्युचल अंनेषन, मन्वो पय,
मेमिडनी एडिफिया समोर, डी. एन. रोड फोर टॉला, फोर्ट, मुंबई - ४०० ००१.
5th floor, Bombay Mutual Annex, Gunbow street, Opp. Residency Hotel, Off D. N. Road, Fort, Mumbai 400 001.
Tel: (022) 22677993, 94 Fax: 022 - 22677995 Website: www.mahashtranursingcouncil.org Email: mncgeneral2015@gmail.com

DATE : 24/01/2019

MNC/RJ 29005/2019


To,
The Registrar
MSBNPE
Mumbai - 400001.

Subject: - The detail count of ANM, GNM and B.Sc. Registered Nurses.
Ref. :- Your letter dated 24/01/2019.

Respected Madam,

With reference to your above letter. This is to inform you that the total count of ANM, GNM and B.Sc. Registered Nurses till date are as follows: -

SR. NO.	COURSE NAME	TOTAL NURSE
1	B.Sc. NURSING	31436 - 6287 - 2
3	REVISED AUXILLARY NURSE MIDWIFERY	87152 - 17430 - 6
5	GENERAL NURSE MIDWIFERY	119505 - 22901 - 9
	TOTAL	2,38,093

I remain,

DEPUTY REGISTRAR