WHITE PAPER

The State of Health in Mumbai

October 2021

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I. Foreword

The COVID-19 pandemic highlighted the importance of good health practices and well-being in all our lives. At the same time, it highlighted the importance of health data management, adequate number of health personnel and a stronger primary health infrastructure. Praja Foundation would like to thank the COVID warriors (healthcare personnel) for their continuous and relentless efforts to fight this pandemic.

Mumbai has always had significant provision for healthcare when it comes to budget allocation. Out of the **total budget estimates of 2021-22 (Rs. 39,038.83 crores), 12% was allocated for public healthcare**. However, during the pandemic public health institutions were overburdened beyond their limits, yet there was a **vacancy of 31% as on 2020**.

Municipal dispensaries can play a vital role in providing effective primary healthcare services especially in this pandemic. However, **from the total health budget estimates for 2021-22, only 20% was allocated to MCGM health department,** that consists of municipal dispensaries, maternity home and health posts. For long, Praja has been advocating for municipal dispensaries' to be accessible for a longer duration. It is a welcome sight to see MCGM has initiated a pilot of opening 15 dispensaries for 14 hours. However, this should also be incorporated in the other municipal dispensaries as well.

In the health data management front, due to Municipal Corporation of Greater Mumbai's (MCGM) maintenance of real-time data on availability of beds ward-wise, they were able to introduce decentralised COVID-19 war rooms in all 24 wards. However, even with the **Health Management Information System (HMIS) in place, the city has not been able to maintain and update the data properly for other diseases**.

Case in point, the **total number of deaths registered in 2020 was 1,12,906**, out of **which COVID deaths accounted for only 11,116 (10%). Excluding COVID deaths, the total deaths registered has increased by 12%; from 91,223 in 2019 to 1,01,790 in 2020.** However, **records of non-COVID deaths have been unavailable due to the lack of maintenance of real-time Cause of Death (COD) data since January 2020.** Furthermore, the **number of registered cases of major diseases in HMIS showed a decline by 29% from 2019 to 2020.** This can either mean that the healthcare system in Mumbai has improved drastically in one year or that diseases are not being reported due to pandemic-led accessibility issues.

However, this could be an accessibility issue, as a survey on "Impact of COVID-19" conducted by Praja, which was commissioned to a reputed market research agency in November – December 2020, stated that 36% respondents in Mumbai faced difficulty in accessing healthcare services for non-COVID issues.

Because of Praja's continuous efforts, the state government was given partial access to the Civil Registration System (CRS) data, but only till December 2019. **None of the state and local government departments are aware of the causes of deaths other than those of COVID since January 2020.**

In terms of health policies and their implementation, Mumbai needs to put in extra effort to meet its SDG goals for many communicable and non-communicable diseases. Since the Sustainable Development Goals 2030 were adopted by India in 2015, we only have nine more years to reach the targets. The SDG target for communicable diseases like Tuberculosis is 0 TB cases/1 lakh population. However, there were 298 TB cases/1 lakh population reported in 2020. Similarly, despite SDG Goals' target to end all epidemics and other

communicable diseases by 2030, 15,623 malaria cases, 9,072 dengue cases and 2,941 HIV/AIDS cases were detected in 2020-21.

Furthermore, the number of questions asked by the councillors in the Public Health Committee also decreased from 105 in 2019-20 to 61 in 2020-21. Apart from this, it was also seen that 15 (25%) of 61 total questions raised, were on naming and renaming of hospitals and health centres.

If Mumbai wishes to become a world class city, it is important that HMIS and Cause of Death data is maintained effectively and in real-time, as these can act as the major indicators in framing and implementations of health schemes and policies. As we move closer to 2030, stringent measures need to be taken to meet the SDG targets adopted by the country. Data driven decisions, effective framing and utilisation of the budget, appropriate allotment of infrastructure and human resources need to be ensured to strengthen the primary and preventive healthcare systems and meet the healthcare requirements of the city.

NITAI MEHTA
Founder Trustee, Praja Foundation

II. Acknowledgement

Praja has obtained the data used in compiling this white paper through the Right to Information Act, 2005. Hence it is very important to acknowledge the RTI Act and everyone involved, especially the officials who have provided us with this information diligently.

We would like to appreciate our stakeholders; particularly, our Elected Representatives and government officials, the Civil Society Organisations (CSOs) and the journalists who utilise and publicise our data and, by doing so, ensure that awareness regarding various issues that we discuss is distributed to a wide-ranging population. We would like to take this opportunity to specifically extend our gratitude to all government officials for their continuous cooperation and support.

Praja Foundation appreciates the support given by our supporters and donors, namely Friedrich Naumann Foundation, Madhu Mehta Foundation and numerous other individual supporters. Their support has made it possible for us to conduct our study and publish this white paper.

We would also like to thank our group of Advisors and Trustees and lastly but not the least, we would like to acknowledge the contributions of all members of Praja's team including our research interns, who worked to make this white paper a reality.

III. Sources of Data

The sources of information for this study have been collected by filing RTIs (Right to Information) to the relevant departments and through Government Websites:

Data Points	Year	Source
Cause of Death	2017 to 2019	State Bureau of Health Intelligence and Vital Statistics (SBHIVS), Maharashtra State through RTI
Aapli Chikitsa		
Diagnostic Tests in Maternity Homes	2019-20 to 2020-21	Public Health Department (MCGM) through RTI
Diagnostic Tests in Municipal Dispensaries	2019-20 to 2020-21	Public Health Department (MCGM) through RTI
Health Facilities		
Density of Dispensary per population	2019-20	MCGM ESR Report 2019-20
Dispensary Timings	As on 31st March 2021	Public Health Department (MCGM) through RTI
Human Resource		
Municipal Health Department and Hospitals	2019 & 2020	MCGM HR module through RTI
State Hospitals	2020	Through RTI filed in State Hospitals
Health Budget	2017-18 to 2021-22	MCGM Budget Books (MCGM Portal)
ER Delibrations		
Councillor Questions	2017-18 to 2021-22	MS Department (MCGM) through RTI
MLA Questions	Winter 2019 to Budget 2021	Vidhan Bhavan through RTI
Government Health Programmes & Schemes		
Health Programmes/Schemes	2018-19 to 2020-21	Health management Information System (HMIS) portal. Data for the year 2020-21 is provisional as mentioned on the portal.
RNTCP	2017 to 2020	Nikshay Portal as on 30.09.2021 and Mumbai TB cell (RTI)

Note: Due to the COVID-19 pandemic and the subsequent difficulty in receiving complete data from the related MCGM and state departments, the paper suffers from the limitation of not including certain data points and/or different data points reported of varying periods. An attempt is however made to portray the holistic situation of Mumbai using published data from online sources and to suggest changes in strengthening health services in the city.

Section A: Health Status of Mumbai

1. Information on diseases and deaths in Mumbai

1.1 Summary of the Current Status of the Cause of Deaths Data in Mumbai

During the COVID-19 pandemic, MCGM began registering data of COVID deaths and cases on the 'Stop Corona Portal' from April 2020 onwards. When analysing the overall deaths registered in Mumbai, 1,12,906 total deaths were registered in 2020 of which, only **10% (11,116) were COVID deaths. Excluding COVID deaths, the total deaths registered has increased by 12%; from 91,223 in 2019 to 1,01,790 in 2020. However, records of non-COVID deaths have been unavailable due to the lack of maintenance of real-time Cause of Death (COD) data since January 2020.**

At the same time, there was a **29% decline from 2019 to 2020 in the cases registered for major diseases** in Mumbai on HMIS (Health Management Information System). This data thus contradicts with the increase in total deaths registered (excluding COVID-19 deaths).

In addition, a survey conducted by Praja on "Impact of COVID-19" in November – December 2020, which was commissioned to a reputed market research agency, showed that an overall average of 36% of the respondents faced difficulty in accessing non-COVID healthcare services. This could possibly be a reason why there is a decline in the registered cases on HMIS, as citizens were unable to access healthcare for diseases other than COVID. Thus, **with no information on Cause of Death (COD) data and the HMIS data that shows a decline in major diseases, there is no explanation as to why the deaths, excluding COVID is increasing.**

Additionally, as the COD data is not maintained in real-time, **none of the state and local government departments are aware of the causes of deaths other than those of COVID since January 2020.** As efforts to tackle the COVID pandemic was prioritised, attention was shifted from other diseases that have been prevalent in Mumbai since before COVID.

There is however, a learning from MCGM's COVID management that can be replicated in future to improve Mumbai's healthcare system holistically. Since MCGM maintained real-time data on all COVID-19 indicators ward-wise they were able to introduce decentralised COVID-19 war rooms in all 24 wards thus enabling them to fight the pandemic through a systematic, data-based approach. This **highlights why maintaining data is crucial as it can allow for effective tracking and implementation of various health polices in the city.**

1.2. Praja's efforts to acquire the Cause of Death Data in Mumbai

Cause of Death is the underlying ailment or disease that leads to an individual's death. It is essential to maintain data on Causes of Death for making and monitoring any public health policy and it is also under the mandate of the Municipal Corporation under the Registration of Births and Death Act, 1969. (Refer Annexure 3).

Praja has been collecting cause of death data since 2011. We received the data on the cause of death up to 31st December 2015 from the MCGM through their SAP system. However, **from 1st January 2016, the recording of birth and death registration was transferred to the newly launched Civil Registration System (CRS) of the central government.** Due to this, the **MCGM claimed that they did not have access to the CRS software for the cause of death.** Similarly, the state government (HIVS, Pune) also said that they did not have access to this data and continually forwarded the RTIs to MCGM which gave us the same reply. Even the RTI to the Vital Statistics Division in the central government was forwarded to the state and MCGM. The timeline below shows the various modes and means Praja has used to try and acquire data for Cause of Death in Mumbai.

Figure 1: Timeline of RTI to MCGM, State and Centre to acquire Cause of Death Data

In all of this, what comes to light is **the confusion and duplication of work that the local and state governments had to undergo due to the lack of accessibility to CRS software**. (For detailed timeline, please refer to Annexure 4)

Although a centralised system of recording births and deaths, has its merits, **it is imperative that the local government which acts as the primary provider of basic services, such as health has access to the cause of death data and can analyse the same to ensure effective service delivery.** Since the MCGM is the responsible body for deaths registration, it must maintain this data in its software for regularly monitoring the state of health in the city. The recent sharing of access to state governments does not allow any scope for it to be effectively tracked. **In conclusion, there is a need to ensure better accessibility to cause of death data by the State and Local Government to ensure better coordination and planning for various health-related interventions.**

1.3 Cause of Death Data in Mumbai

Table 1: Total Deaths registered in Mumbai from 2016 to 2020

Total Deaths				
2016	**2017**	**2018**	**2019**	**2020**
86,642	**89,037**	**88,852**	**91,223**	**1,12,906**

Inference:

- 1,12,906 total deaths were registered in 2020.
- The total number of deaths increased by 24% from 91,223 in 2019 to 1,12,906 in 2020.
- From 2016 to 2020, the total deaths registered have increased by 30%.

Table 2: Major Causes of Death in Mumbai from 2016 to 2019

Disease	2016	2017	2018	2019
Tuberculosis (A15-A19)	6,660	5,449	4,940	4,899
Other Bacterial Diseases (A20-A49)	1,801	1,832	1,798	1,942
Dengue fever (A97)	7	348	239	281
HIV (B20-B24)	852	881	822	685
Malaria (B50-B54)	125	100	69	69
Neoplasms (C00-D48)	9,525	8,872	10,073	10,303
Diabetes (E10-E14)	9,088	9,525	10,458	11,491
Diseases of the nervous system (G00-G98)	2,327	2,426	2,537	2,542
Diseases of the circulatory system (I00-I99)	26,067	25,067	25,962	27,072
Respiratory diseases (J00-J98)	8,438	7,735	7,954	7,917
Diseases of the Digestive System (K00-K92)	4,232	4,089	4,142	4,456
Diseases of the Genitourinary System (N00-N99)	2,173	1,967	1,946	2,143
Certain Conditions Originating in the Perinatal Period(P00-P96)	1,827	1,993	1,826	1,829
Symptoms Signs and Abnormal Clinical and Laboratory finding not elsewhere classified (R00-R99)	2,456	1,789	1,585	1,505
Injury, poisoning and certain other consequences of external causes (S00-T98)	4,853	4,945	5,068	4,807
Other Cause of deaths	11,064	11,819	10,749	10,496
Total	**91,495**	**88,837**	**90,168**	**92,437**

*** COD data is provided year wise.**

Inference:

- Furthermore, the cause of death data which is available till 2019, has increased too, from 88,837 in 2017 to 92,437 in 2019.
- The highest proportion of reported deaths was due to diseases of the circulatory system, followed by Diabetes, Neoplasms and respiratory diseases.
- Death caused due to diabetes increased from 10.7% in 2017 to 12.4% in 2019 of total deaths.
- The number of deaths reported due to Tuberculosis has decreased from 5.5% in 2018 to 5.3% in 2019.

Table 3: Comparison of Covid-19 deaths with total deaths

2016	2017	2018	2019	2020*		
				Excluding Covid deaths	Covid deaths	% of Covid deaths
86,642	89,037	88,852	91,223	1,01,790	11,116	10%

Note (*): The MCGM began registering COVID deaths on the Stop Corona Portal since April 2020.

Inference:

- Out of the total deaths registered in 2020, 11,116 (10%) COVID deaths were registered.
- The cause of death information for the remaining 90% (1,01,790) is unavailable and is not available since January 2020.
- Furthermore, even after excluding COVID deaths, the deaths in Mumbai has been increasing from 91,223 in 2019 to 1,01,790 in 2020.

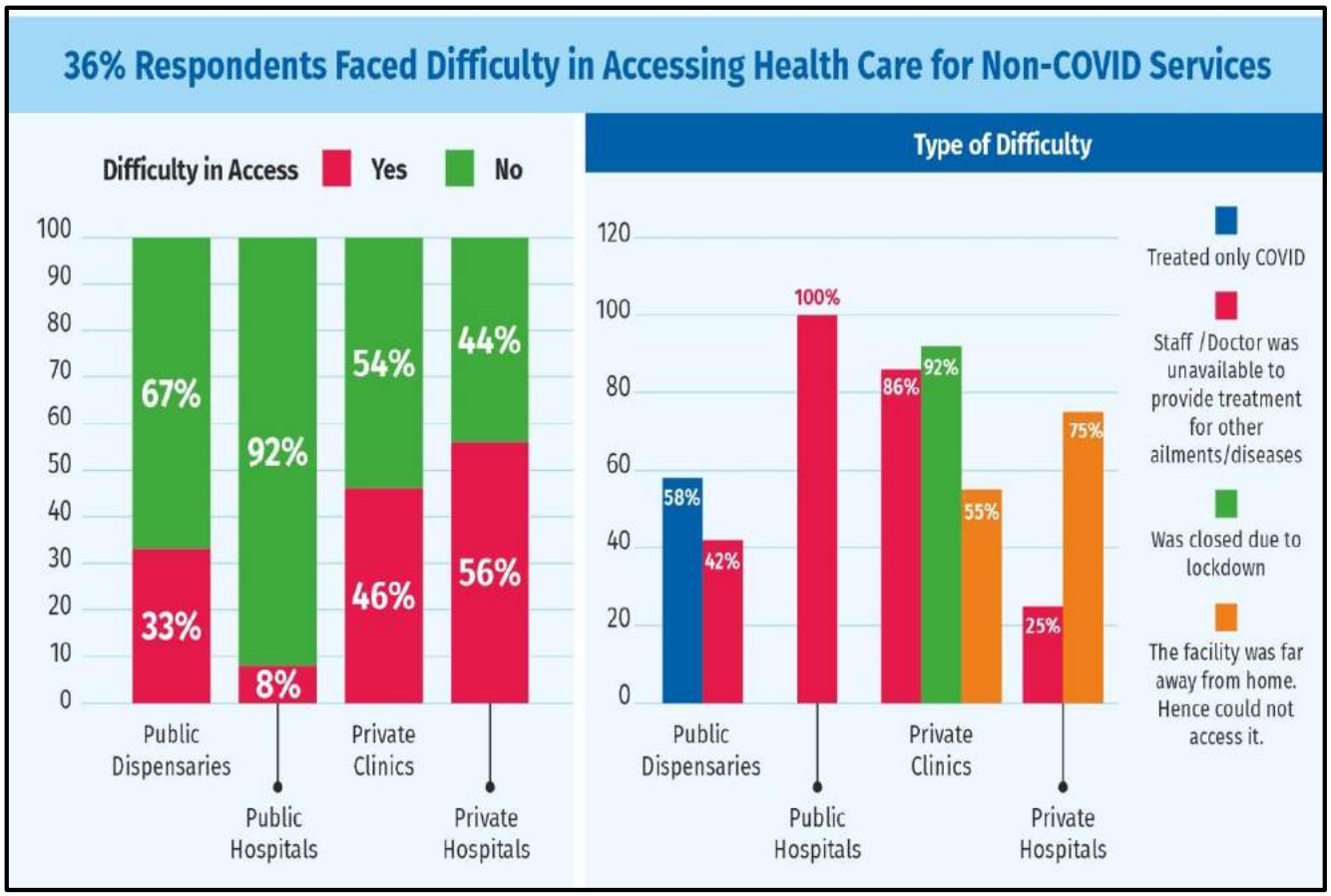
Table 4: Number of cases of Major Diseases registered in Mumbai from 2018 to 2020

Disease	2018	2019	2020	% change from 2019 to 2020
Tuberculosis (A15-A19)	56,894	60,477	43,298	-28%
Malaria (B50-B54)	17,205	13,626	15,176	11%
Dengue Fever (A97)	36,626	33,078	8,753	-74%
Diabetes (E10-E14)	2,42,824	2,52,545	1,78,898	-29%
Hypertension (I10-I15)	1,70,213	1,94,464	1,47,794	-24%
(HIV) (B20-B24)	6,782	6,213	3,352	-46%
Total	**5,30,544**	**5,60,403**	**3,97,271**	**-29%**

Inference:

- Although an increase is seen in total deaths registered, the number of registered cases of major diseases in HMIS (Health Management Information System) showed a decline by 29% from 2019 to 2020.
- This decline in registered cases of diseases can be attributed to the lockdown restrictions and major shift in focus towards COVID management.

Figure 2: The types of difficulties faced in accessing health care during COVID 19*



*Note: Was published in Praja's Report, Impact of COVID-19 in Mumbai, 2021

Inference:

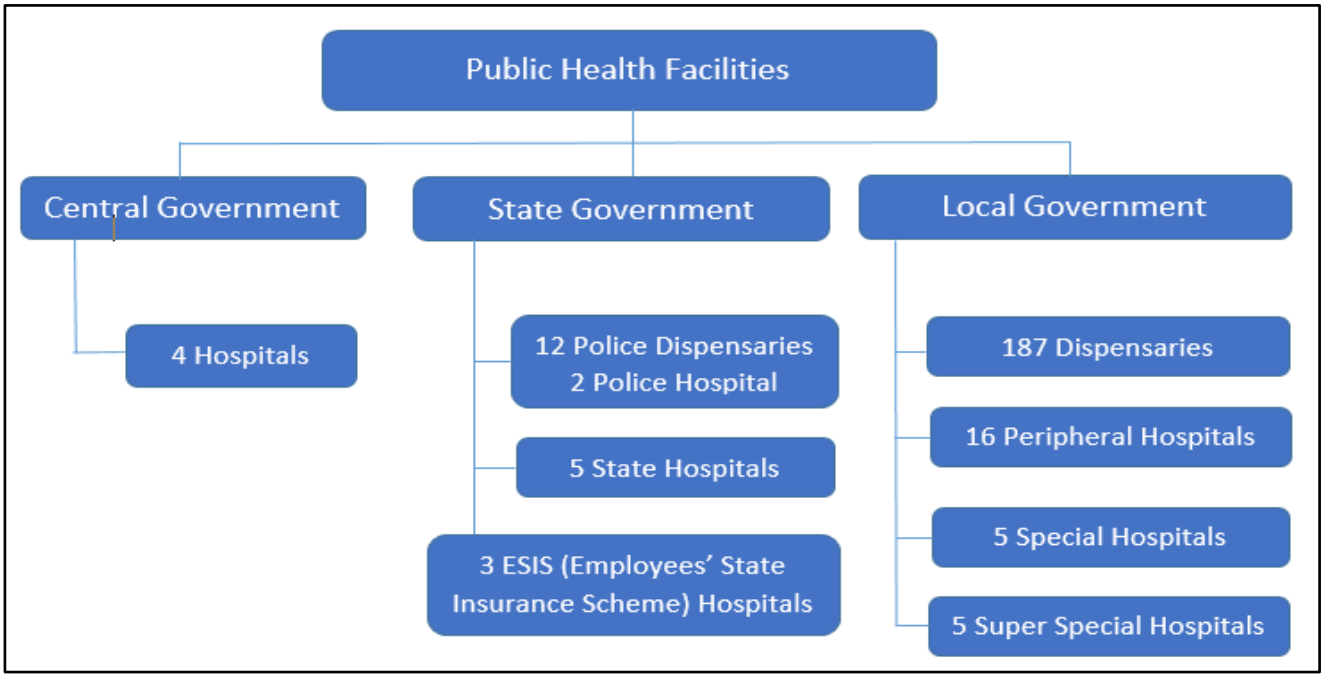
- Furthermore, in the survey conducted by Praja on "Impact of COVID-19" in November – December 2020, which was commissioned to a reputed market research agency, showed various difficulties faced in accessing health care during COVID 19.
- It showed an overall average of 36% of the respondents faced difficulty in accessing non-COVID healthcare services.
- From these, 33% of them faced difficulty in accessing the Municipal Public Dispensaries.
- Maximum respondents stated the Staff/Doctor was unavailable to provide treatment for other ailments/diseases except COVID.

2. Facilities, Human and Financial Resources for Healthcare Systems in Mumbai

An imperative aspect of a strong, well-functioning healthcare system is the strength and adequacy of its budget, infrastructure, and personnel.

2.1. Health Facilities

Figure 3: Number of Government Hospitals and Dispensaries in Mumbai[1]



With regards to the upgradation and strengthening of healthcare infrastructure, the Central Government has two major policies for the country, namely Ayushman Bharat and The Pradhan Mantri Swasthya Suraksha Yojana (PMSSY)

The infrastructure component of **Ayushman Bharat** aims to create 1,50,000 Health and Wellness Centres (HWCs) by transforming PHCs/SCs to provide Comprehensive Primary Health Care (CPHC). HWCs will enable a focus on wellness and health promotion, and provide an expanded range of primary healthcare services, including access to medicines and diagnostics, and be delivered close to the community. **However, there is no data of HWCs set up in Mumbai.**

The **Pradhan Mantri Swasthya Suraksha Yojana (PMSSY)** that also aims at correcting the imbalances in the availability of affordable healthcare facilities in different parts of the country has two components- setting up of AIIMS Institutions; and Up-gradation of existing Government Medical Colleges/Institutions and is being taken in

[1] Refer Annexure 1 for complete list of dispensaries and hospitals

a phased manner[2]. The scheme is currently being implemented in Mumbai for civil construction works of the Grant Medical College[3], which is a state government institution.

National Building Code (NBC) contains regulations which can be adopted or enacted for use by various departments municipal administrations and public bodies. The NBC code has also been incorporated in the Greater Mumbai Report on Draft Development Plan 2034 (May 2016), MCGM. As per the norms it is recommended there should be **1 dispensary for every 15,000 population**. The Urban Design Plan Formulation and Implementation (UDPFI) by the Ministry of Housing and Urban Affairs also recommends this norm for cities.

Table 5: Availability of Government Health Facilities in Mumbai in 2020

Ward	Mid-Year election list of population 2019	Slum Population (in %)[4]	No. of Government Hospitals	Available Government Dispensaries	Density of government dispensaries to population	Dispensary (1 for 50,000)[5] - RC*	Dispensary (1 For 15,000)[6] - NBC/UDPFI*
A	1,91,450	34%	4	7	27,350	4	13
B	1,31,718	11%	0	5	26,344	3	9
C	1,71,941	-	0	5	34,388	3	11
D	3,58,933	10%	0	8	44,867	7	24
E	4,06,967	20%	6	13	31,305	8	27
F/N	5,47,438	58%	2	8	68,430	11	36
F/S	3,73,529	26%	5	9	41,503	7	25
G/N	6,19,878	32%	0	10	61,988	12	41
G/S	3,90,890	21%	1	14	27,921	8	26
H/E	5,76,624	42%	1	8	72,078	12	38
H/W	3,18,281	39%	1	5	63,656	6	21
K/E	8,52,546	49%	2	13	65,580	17	57
K/W	7,74,733	15%	1	7	1,10,676	15	52
L	9,33,611	54%	1	16	58,351	19	62
M/E	8,35,819	30%	1	11	75,984	17	56
M/W	4,26,222	53%	1	6	71,037	9	28
N	6,44,521	62%	2	9	71,613	13	43
P/N	9,74,114	54%	3	11	88,556	19	65
P/S	4,79,631	57%	1	3	1,59,877	10	32
R/C	5,81,718	19%	2	8	72,715	12	39
R/N	4,46,374	51%	0	5	89,275	9	30
R/S	7,15,275	58%	2	7	1,02,182	14	48
S	7,69,657	72%	1	8	96,207	15	51
T	3,53,343	33%	3	3	1,17,781	7	24
Total	**1,28,75,213**	**42%**	**40**	**199**	**64,700**	**258**	**858**

*RC: Rindani Committee; NBC: National Building Code; UDPFI: Urban Design Plan Formulation and Implementation

[2] https://main.mohfw.gov.in/sites/default/files/Annual%20Report%202019-2020%20English.pdf

[3] https://pmssy.nhp.gov.in/pms/

[4] Source: Greater Mumbai Report on Draft Development Plan 2034 (May 2016), MCGM

[5] Rindani committee in 1977

[6] Urban Design Plan Formulation and Implementation (UDPFI) and the National Building Code (NBC)

Inference:

- Based on the NBC and UDPFI norm (one dispensary for 15,000 population), Mumbai requires 858 dispensaries, while in 2020, had only 199 public/government dispensaries.
- In 2020, not a single ward in Mumbai met the criteria of 1 dispensary for 15,000 population (NBC) criteria.
- Wards like S (8 dispensaries) and N (9 dispensaries) with more than 60% of slum population have a smaller number of dispensaries in the area.
- Wards K/W, P/S, R/S and T have only 1 dispensary for more than one lakh population.

Table 6: Ward wise Dispensary timings as on 31st March 21

Ward	Slum Population (in %)[7]	10:00AM To 3:00PM (5 hrs)	9:00am to 4:00pm (7hrs)	10:00am to 6:00pm (8 hrs)	9:00am to 11:00 PM (14 hrs)	Total Dispensary
A	34%		4	1	1	**6**
B	11%		4		1	**5**
C	-		5			**5**
D	10%		5		1	**6**
E	20%		13			**13**
FN	58%		5		2	**7**
FS	26%		9			**9**
GN	32%		9			**9**
GS	21%		12		1	**13**
HE	42%		6		1	**7**
HW	39%		4		1	**5**
KE	49%		11			**11**
KW	15%		6		1	**7**
L	54%		14		1	**15**
ME	30%		10		1	**11**
MW	53%		6			**6**
N	62%		7		1	**8**
PN	54%	1	9		1	**11**
PS	57%		3			**3**
RC	19%		7		1	**8**
RN	51%		5			**5**
RS	58%		6			**6**
S	72%		7		1	**8**
T	33%		3			**3**
Total	**42%**	**1**	**170**	**1**	**15**	**187**

Inference:

- Out of the 187 public dispensaries, only 15 dispensaries are accessible for 14 hours, while 170 dispensaries are open for only 7 hrs.
- The wards R/N, M/W, L, P/N, P/S, F/N, R/S, N, and S have more than 50% slum population, however these wards have only 8 dispensaries on an average.
- Further, only 10% of these dispensaries are accessible for 14 hours, while 90% are accessible only for 7 hours.

[7] Source: Greater Mumbai Report on Draft Development Plan 2034 (May 2016), MCGM

2.2. Human Resources

Table 7: Sanctioned and Available Personnel in Public Health Department and Municipal Hospitals in Mumbai in 2019 and 2020

Post	2019			2020		
	Sanctioned	Available	% of Vacant Post	Sanctioned	Available	% of Vacant Post
Medical	1,660	885	47%	1,494	844	44%
Para- Medical	3,580	2,045	43%	3,716	2,042	45%
Nursing Staff	7,306	6,110	16%	7,088	5,702	20%
Total	**12,546**	**9,040**	**28%**	**12,298**	**8,588**	**30%**
Administration	4,115	2,784	32%	4,166	2,804	33%
Labour	14,809	10,137	32%	14,659	9,984	32%
Lecturer	1,405	934	34%	1,342	910	32%
Total	**20,329**	**13,855**	**32%**	**20,167**	**13,698**	**32%**
Grand Total	**32,875**	**22,895**	**30%**	**32,465**	**22,286**	**31%**

Inference:

- Available sanctioned personnel in the overall MCGM Health facilities shows a 31% vacancy till 2020.
- Of which 44% vacant post are in medical staff (directly treating patients) and a 45% and 20% vacant post are in para-medical and nursing staff respectively as on 2020.
- The overall vacant posts in the medical personnel staff have increased from 28% in 2019 to 30% in 2020
- Public health institutions were overburdened beyond their limits to fight the pandemic, however, the sanctioned personnel post in public health department and municipal hospitals were decreased by 410 from 2019 to 2020.

Table 8: Percentage of Vacant Post in the Personnel of State Hospitals in Mumbai in 2020[8]

Post	Sanctioned	Available	% of Vacant Post
Medical	132	73	45%
Para- Medical	418	292	30%
Nursing Staff	2,577	1,980	23%
Total	**3,127**	**2,345**	**25%**
Administration	324	223	31%
Labour	1,572	1,135	28%
Lecturer	73	15	79%
Total	**1,969**	**1,373**	**30%**
Grand Total	**5,096**	**3,718**	**27%**

Inferences:

- As of 2020 the state hospitals in Mumbai have an overall shortage of 27% personnel, of which there is a 25% shortage of medical staff who are involved directly treating the patients.
- There is a 45% vacancy in medical staff and a 30% and 23% vacancy in para- medical staff and nursing staff respectively as on 2020.
- SDG target for 2030 is to have 45 medical, paramedical, and nursing personnel per 10,000 population while the current number for Mumbai is 8 medical, paramedical, and nursing personnel per 10,000 population including both MCGM and State health facilities.

[8] J. J Hospital's personnel data of one establishment is in appeal, hence not included in the above table.

2.3. Health Budgets[9]

Table 9: Total Budget Estimates and Actuals[10] of MCGM Health Budget from 2017-18 to 2021-22 (in crores)

Heads	2017-18			2018-19			2019-20			2020-21	2021-22
	Revised Estimates	Actuals	Utilisation (%)	Revised Estimates	Actuals	Utilisation (%)	Revised Estimates	Actuals	Utilisation (%)	Revised Estimates	Budget Estimates
MCGM Health Department[11]											
Revenue Expenditure	678	597	88%	717	598	83%	837	691	83%	808	940
Municipal Hospitals											
Revenue Expenditure	2,069	1,696	82%	2,180	1,889	87%	2,499	2,163	87%	2,396	2574
Other[12]											
Revenue Expenditure	9	6	69%	8	5	60%	9	7	76%	8	9
Total Revenue Expenditure	**2,756**	**2,299**	**83%**	**2,905**	**2,492**	**86%**	**3,345**	**2,861**	**86%**	**3,211**	**3,522**
Total Capital Expenditure	**441**	**294**	**67%**	**507**	**339**	**67%**	**678**	**395**	**58%**	**781**	**1,206**
Total Health	**3,197**	**2,593**	**81%**	**3,412**	**2,832**	**83%**	**4,023**	**3,256**	**81%**	**3,992**	**4,729**

Inference:

- Out of the total budget estimates of 2021-22 (Rs. 39,038.83 crores), 12% (4,729 crores) has been allocated for the health budget.
- The budget trend shows that revenue expenditure on primary healthcare (dispensaries and programmes that falls under the MCGM Health department) is considerably lesser than the revenue expenditure on hospitals.
- The budget utilisation of the revenue expenditure in the MCGM health Department was 83% in 2019-2020 and the budget utilisation of Municipal Hospitals was 87% in the same period.
- Total Capital Expenditure Budget Estimates for 2021-22 has increased by 54% from 2020-21 revised estimates however, utilisation of these funds has fallen from 67% in 2017-18 to 58% in 2019-21.

[9] https://portal.mcgm.gov.in/irj/portal/anonymous/qlBudgetapp
[10] Actuals are from Budget Estimate Books of the MCGM of subsequent years.
[11] Includes preventive and primary public healthcare, dispensaries, burials and cremation.
[12] Includes other departments to which health budget allocated for certain related services, for example, environment dept.

Table 10: Revenue Budget Estimates and Actuals[13] of MCGM Health Department from 2017-18 to 2021-22 (in crores)

Heads	2017-18			2018-19			2019-20			2020-21	2021-22
	Revised Estimates	Actuals	Utilisation (%)	Revised Estimates	Actuals	Utilisation (%)	Revised Estimates	Actuals	Utilisation (%)	Revised Estimates	Budget Estimates
MCGM Health Department											
Establishment expenses	434	402	93%	454	437	96%	577	506	88%	510	557
Administrative expenses	54	32	60%	56	36	65%	65	34	52%	107	103
Operation and maintenance	100	72	72%	106	75	71%	127	86	67%	117	112
Interest and Finance charges	0.8	0.8	100%	0.8	0.8	100%	0.7	1.1	145%	0.7	0.0018
Programme expenses	5	2	43%	7	1	16%	8	2	28%	8	6
Revenue grants contribution and subsidies	84	78	94%	92	36	39%	57	55	97%	65	161
Transfer to reserve funds	1	1	100%	1	1	100%	1	9	1,064%	1	0
Total Revenue Expenditure	**678**	**597**	**88%**	**717**	**598**	**83%**	**837**	**691**	**83%**	**808**	**940**

Inference:

- Budget estimates of the Total Revenue Expenditure for 2021-22 has increased by 16% from 2020-21,
- However, budget estimates of Programme expenses, Administration expenses and Operations & maintenance have reduced in MCGM Health Department from 2020-21 to 2021-22.
- The utilisation of programme expenses of the health department is consistently low, and has dropped from 43% in 2017-18 to 28% in 2019-20.
- The utilisation of Operations and maintenance expenses have decreased from 72% in 2017-18 to 67% in 2019-2020.

[13] Actuals are from Budget Estimate Books of the MCGM of subsequent years.

Table 11: Revenue Budget Estimates and Actuals[14] of MCGM Hospitals from 2017-18 to 2021-22 (in crores)

Heads	2017-18			2018-19			2019-20			2020-21	2021-22
	Revised Estimates	Actuals	Utilisation (%)	Revised Estimates	Actuals	Utilisation (%)	Revised Estimates	Actuals	Utilisation (%)	Revised Estimates	Budget Estimates
MCGM Hospitals											
Establishment expenses	1,422	1,222	86%	1,527	1,353	89%	1,771	1,604	91%	1,658	1,943
Administrative expenses	170	79	46%	146	78	53%	166	112	68%	183	154
Operation and maintenance	468	306	65%	495	362	73%	551	341	62%	543	469
Interest and Finance charges	0	0	0%	0	0	0%	0	0	0%	0	0
Programme expenses	9	2	22%	11	4	33%	11	4	34%	11	8
Revenue grants contribution and subsidies	1	0.35	0%	0.7	0.36	52%	0.7	0.34	49%	0.7	0.42
Transfer to reserve funds	0	0	0%	0	0	0%	0	0	0%	0	0
Total Revenue Expenditure	**2,069**	**1,696**	**82%**	**2,180**	**1,889**	**87%**	**2,499**	**2,163**	**87%**	**2,396**	**2,574**

Inference:

- Utilisation of Programme expenses have increased since 2017-18 but it is still very low at only 34% in 2019-20.
- The utilisation of the administrative expenses and operation and maintenance has constantly remained low since 2017-18.

[14] Actuals are from Budget Estimate Books of the MCGM of subsequent years.

2.4. Aapli Chikitsa

Background: The Standing Committee of the Brihanmumbai Municipal Corporation (BMC) approved the 'Aapli Chikitsa' scheme on 16th January 2019. Under this scheme, Mumbaikars can avail pathology/diagnostic facilities at a low cost. Experts are considering it as a milestone in the field of health. After much deliberations, it has been approved.

Objective: In the new system, along with dispensaries, 16 hospitals in the suburbs (where facilities are not available now) will have the facility of blood tests. This service will be available 24 hours in these hospitals. There are 139 types of tests included in the scheme; comprising of 101 basic tests and 38 advance tests. Patients from low-income groups can avail this facility free of cost and while the rest would have to pay a minimum cost (refer to Annexure 6 for rates). This reduced the burden and overcrowding in hospitals as well.

The time taken for each test varies accordingly; the test report is received in 6 hours to 5 weeks. **Under the Aapli Chikitsa scheme, Thyrocare and Metropolis have been given contracts as service providers**, of which Thyrocare caters to the Central and Western suburban areas of Mumbai city, while Eastern suburban areas are managed by Metropolis.

Implementation Status:

1. A total of 95,768 basic diagnostic tests were conducted in MCGM Maternity Homes under this scheme, of which 15% was conducted in the city region, 44% was in Western Suburb and 41% in Eastern Suburb.
2. Additionally, 2,354 advance tests were carried, out of which 35% was done in the city region, 34% was in Western Suburb and 31% in Eastern Suburb.
3. Under the Aapli Chikitsa scheme for Municipal Dispensaries, a total of 6,57,055 tests were conducted for a total of 1,08,974 samples collected.

3. Deliberations by Elected Representatives on Health in Mumbai

Table 12: Total of Meetings, Attendance and Questions from 2017-18 to 2020-21 of Councillors in MCGM Public Health Committee

Year	Total Meetings	Attendance (%)	Total Questions Asked
2017-18	13	70%	154
2018-19	16	68%	159
2019-20	23	69%	105
2020-21	10	68%	61

Inference:

- During the pandemic, the number of MCGM Public Health Committee meetings decreased from 23 in 2019-20 to 10 in 2020-21, the number of questions asked by the Councillors in Public Health Committee also decreased from 105 in 2019-20 to 61 in 2020-21.
- Attendance percentage for these meetings remained constant even despite the decrease in meetings, thus if virtual meetings were held the deliberations carried out could have increased.

Table 13: Health issues raised by Public Health Committee Councillors from 2017-18 to 2020-21

Issues	2017-18	2018-19	2019-20	2020-21
Total Questions asked	**154**	**159**	**105**	**61**
Budget	1	1	1	0
Bio medical Waste	0	1	1	0
Cemeteries /Crematorium related	4	8	2	1
Epidemic/Sensitive Diseases	3	10	2	4
Covid 19	-	-	-	*5*
Malaria/Dengue	*1*	*1*	*0*	*0*
Diabetic/Hypertension	*0*	*0*	*0*	*0*
Diarrhoea/Typhoid/Cholera	*0*	*1*	*0*	*0*
Tuberculosis	*2*	*7*	*0*	*2*
Dispensary/Municipal Hospital/State Hospital	4	0	16	0
Equipment	6	4	4	5
Eradication programme	0	0	0	0
Fogging	0	0	0	0
Health Education/institute	2	0	0	0
Health related	4	5	3	4
Health Service Related	4	22	16	11
Human Resource	28	25	15	5
Infrastructure	41	31	10	8
License Related	4	3	0	0
Maternity homes / Primary Health Centre(PHC)	13	14	6	3
MCGM Related	2	1	1	0
Mortality rate	0	0	0	0
Medical Examination of Students	0	0	0	0
Naming/ Renaming Hospital/Health Centre/Cemeteries	12	17	17	15
Nuisance due to Pest Rodents, stray dogs, monkeys etc.	2	0	0	1
Pest Control Related	2	0	0	0
Private Health Services	1	1	0	1
Reforms in health policies	0	0	0	0
Schemes / Policies in Health Related	7	10	4	0
Treatment/Medicines	14	10	7	3

(Note: One question/issue may be related to multiple sub-issues in health and is counted issue wise, hence total questions raised does not equal issue wise total)

Inference:

- Out of the total issues in Public Health Committee from April 2020 to March 2021, 25% (15) were raised on naming and renaming of hospitals and health centres.
- Not even a single issue/question was raised to discuss on diseases like diabetes, hypertension, malaria etc. which have led to some of the highest deaths in the city.

Table 14: Health issues raised by Municipal Councillors in All Other Committees from 2017-18 to 2020-21

Issues	2017-18	2018-19	2019-20	2020-21
Total Questions asked	**281**	**294**	**242**	**102**
Budget	0	0	0	1
Bio medical Waste	5	1	0	0
Cemeteries / Crematorium related	11	13	8	5
Compensation/Rehabilitation	0	0	1	0
Epidemic/Sensitive Diseases	54	65	59	21
Covid 19	-	-	-	*19*
Malaria/Dengue	*17*	*18*	*20*	*5*
Tuberculosis	*6*	*19*	*21*	*1*
Diarrhoea/Typhoid/Cholera	*0*	*0*	*4*	*0*
Diabetes/Hypertension	*5*	*2*	*3*	*2*
Dispensary/Municipal Hospital/State Hospital	8	9	11	2
Equipment	3	3	0	0
Eradication programme	2	0	0	1
Fogging	23	15	26	5
Health related	62	30	49	23
Human Resource	14	27	13	6
Health Service Related	9	27	19	2
Health Education/Institute Related	0	1	1	0
Infrastructure	16	28	9	13
Issue of Birth/Death certificates	1	3	4	0
License Related	11	9	10	5
Maternity homes / Primary Health Centre(PHC)	21	15	6	3
MCGM related	0	0	2	0
Mortality rate	3	0	0	0
Naming/ Renaming Hospital/Health Centre/Cemeteries	1	10	3	7
Nuisance due to Pest Rodents, stray dogs, monkeys, etc.	6	4	0	0
Private health services	0	0	1	2
Reforms in health policies	3	1	0	0
Schemes / Policies in Health	18	17	16	6
Vaccination	0	0	1	0
Treatment/Medicines	12	16	3	0

(**Note:** One question/issue may be related to multiple sub-issues in health and is counted issue wise, hence total questions raised does not equal issue wise total)

Inference:

- Issues on Epidemic/Sensitive Diseases and infrastructure-related were raised in other committees than the public health committee in 2020-21.
- For example, only 4 questions in the public health committee in 2020-21 were raised for Epidemic/Sensitive Diseases while 21 questions were raised in other committees for the same.

Table 15: Health issues raised by MLAs from Winter Session 2019 to Budget Session 2021

Issues	Winter 2019		Budget 2020		Monsoon 2020		Winter 2020		Budget 2021		Total		
Total Questions Asked	**57**		**427**		**149**		**59**		**132**		**824**		
	A	**B**	**A**	**B**	**A**	**B**	**A**	**B**	**A**	**B**	**A**	**B**	**T**
Budget	0	0	1	1	0	0	0	0	0	0	1	1	2
Cemeteries/Crematorium related	1	0	1	0	2	0	0	0	0	0	4	0	4
Epidemic/Sensitive Diseases	4	1	22	61	19	30	0	9	0	25	45	126	171
Covid 19	*0*	*0*	*14*	*18*	*36*	*48*	*0*	*21*	*0*	*13*	*50*	*100*	*150*
Diabetic/Hypertension	*0*	*0*	*2*	*3*	*0*	*1*	*0*	*0*	*0*	*0*	*2*	*4*	*6*
Malaria/Dengue	*2*	*1*	*1*	*4*	*0*	*4*	*0*	*0*	*0*	*0*	*3*	*9*	*12*
Diarrhoea/Typhoid/Cholera	*0*	*0*	*0*	*0*	*0*	*1*	*0*	*0*	*0*	*21*	*0*	*22*	*22*
Tuberculosis	*1*	*0*	*7*	*3*	*0*	*4*	*0*	*0*	*0*	*2*	*8*	*9*	*17*
Dispensary/Municipal Hospital/State Hospital	0	0	2	0	1	0	0	0	0	0	3	0	3
Equipments	0	0	9	4	10	0	0	0	3	0	22	4	26
Eradication programme	0	0	0	0	0	0	0	0	0	0	0	0	0
Health Education/Institute	0	1	4	6	0	3	0	0	0	2	4	12	16
Health Insurance	0	0	0	0	1	4	0	0	0	0	1	4	5
Health Related Issues	11	4	19	47	7	13	0	3	0	2	37	69	106
Health Service Related	4	3	49	12	5	0	0	0	0	6	58	21	79
Human Resource	1	1	12	33	4	24	8	3	1	15	26	76	102
Infrastructure	2	1	14	17	7	1	1	1	1	37	25	57	82
License Related	0	0	0	4	1	0	0	0	0	0	1	4	5
Maternity homes / Primary Health Centre(PHC)	0	1	2	6	0	0	0	0	0	0	2	7	9
Mortality Rate	0	0	0	21	0	1	0	12	0	8	0	42	42
Pollution	1	3	6	16	0	1	0	0	4	1	11	21	32
Private health services	1	0	0	6	1	1	6	0	1	0	9	7	16
Quacks	2	0	10	4	0	0	0	0	0	0	12	4	16
Schemes / Policies in Health	7	0	0	13	0	3	6	0	0	16	13	32	45
Treatment/Medicines	4	4	10	15	1	9	0	10	1	9	16	47	63

A - Que. related to Mumbai & Schemes/Policies, **B** - **Other Health Questions**, **T** - **Total Health Questions**

(**Note:** One question/issue may be related to multiple sub-issues in health and is counted issue wise, hence total questions raised does not equal issue wise total)

Inference:

- In the current legislative term, a total of 171 questions were raised by MLAs on Epidemic/Sensitive Diseases, of which the maximum number of questions were raised in the Budget 2020 and Monsoon 2020 sessions.
- Health Related Issues, Human Resource, Infrastructure were among the highest raised issues in the period from Budget 2020 to Budget 2021.
- Questions on Mortality Rate and Schemes / Policies in Health consisted of only 5% each of the total questions raised by MLAs in the period from Winter 2019 to Budget 2021.
- In the period from Winter 2019 to Budget 2021, out of the total health questions raised by MLAs, only 4% of the questions were related to diseases like Diabetic/Hypertension, Malaria/Dengue and Tuberculosis.

4. Recommendations

Data Management

- There is a need for a robust and open Health Management Information System (HMIS) that maintains data on various diseases, patients registered and other health related services and indicators.
- Cause of Death data should be maintained on a real-time basis. Furthermore, data should also be accessible to all tiers of the government.
- Additionally, all health data that is maintained, must be effectively utilised by various health policy & planning agencies. This will allow for efficient tracking and monitoring of the status of health as well as the progress of implementation for various schemes/programmes in Mumbai.

Improve Access to Healthcare Facilities in Mumbai

- While Aapli Chitksa is being implemented at the Municipal dispensaries, there is a need to further improve primary healthcare facilities in the city.
- The norms recommended by the NBC and UDPFI should be followed to ensure that there are adequate number of dispensaries available for the public.
- To ensure dispensaries are accessible to the working population, they should be open before and after office hours, from 8 am in the morning to 11 pm at night.
- There is a need to understand the actual requirement of healthcare services in all wards so that an adequate number of medical personnel are available in all of MCGMs Healthcare Departments. This will further increase access to primary healthcare services in the city.

Budget Allocation and Spending:

- An outcome-based budget should be incorporated to ensure a targeted development in the overall healthcare sector of the city.
- The budget must focus on allocating sufficient funds to improve the primary and preventive healthcare services by increasing the number of dispensaries, the timings, as well as the available medical personnel.
- The capital budget should also be utilised effectively to create efficient and adequate health infrastructure in the city**.**

Deliberations

- Elected Representatives (ERs) must carry out citizen-centric deliberations in the public health committee meetings that target the existing major issues related to health in the city.
- Deliberations should also include data-centric discussion on the diseases that lead to the highest deaths in Mumbai, such as diabetes, malaria, tuberculosis, etc.
- ERs must advocate for better primary healthcare infrastructure and adequate number of medical personnel while also ensuring that these services are accessible to the citizens for longer hours, to increase access for the working populace.

Section B: SDG and Government Health Programmes & Schemes

1. Analysis of Government Health Programmes/Schemes Implemented in Mumbai

The report aims to analyse the implementation of healthcare schemes and programmes in the city by tracking the related data of incidence and morbidity of diseases that the schemes aim to tackle to see if there are any gaps in the scheme or the implementation of the scheme and to provide suggestions for improvement.

Policy-Making on Health in India

The Constitution of India delegates the responsibility of the provision of healthcare to the state governments. Every state is responsible for "raising the level of nutrition and the standard of living of its people and the improvement of public health" as among its primary duties. However, policymaking related to public healthcare is divided between the Central and State Governments. While the Central Government is responsible for addressing healthcare issues with a wider reach, such as prevention of major diseases and all-encompassing family welfare, the State Governments handle targeted aspects such as local hospitals, public health, promotion, and sanitation.

Overall Health Policy Framework

National Health Policy

The approach taken by the health sector has been guided by the National Health Policy (NHP) 1983, the NHP, 2002, and most recently, the NHP, 2017. The goal, as set out by the NHP 2017 is "the attainment of the highest possible level of health and wellbeing for all at all ages, through a preventive and promotive health care orientation in all developmental policies, and universal access to good quality health care services without anyone having to face financial hardship as a consequence."[15] The policy recognises the pivotal importance of Sustainable Development Goals (SDGs) and strives to achieve them by increasing access, improving quality, and lowering the cost of healthcare delivery.

National Health Mission

The National Health Mission (NHM) – is a flagship programme of the Ministry of Health and Family Welfare that supports States/UTs to strengthen their health care systems to provide universal access to equitable, affordable, and quality health care services. The NHM seeks to improve and strengthen the healthcare system of the country through its focused components namely Reproductive, Maternal, Neonatal, Child and Adolescent Health (RMNCH+A), Communicable and Non-Communicable Diseases.

The National Health Urban Mission NUHM aimed to focus on three levels of improvement namely community-level outreach programs, urban health center level infrastructure and existing health system improvement, and secondary/tertiary level public-private partnerships. The onus of executing these improvement plans was allotted to municipal governments, with the additional duty of improving the social determinants that impact health such as sanitation, drinking water, and nutrition.

[15] https://www.nhp.gov.in/nhpfiles/national_health_policy_2017.pdf

AYUSH

Ministry of AYUSH focuses on the medical systems that have historically been practiced in India such as Ayurveda, Yoga, and Naturopathy, Unani, Siddha, and Homeopathy (acronym, AYUSH). Due to the growing challenges in the medical field regarding Non-Communicable Diseases (NCDs), lifestyle disorders, long-term diseases, multi-drug resistant diseases, and the emergence of new diseases, there was a great curiosity to understand the principles and practice of AYUSH. Therefore, in 1995, with the objective of optimal and focused development of these systems, the Department of Indian Medicine and Homeopathy (ISM and H) was created in the Union Ministry of Health and Family Welfare. In 2003, this Department was renamed as Department of AYUSH. In 2014, it was turned into a separate Ministry of AYUSH[16].

The objectives of AYUSH is to upgrade the educational standards of Indian Systems of Medicines and Homoeopathy colleges in the country, to strengthen existing research institutions and to ensure a time-bound research programme on identified diseases for which these systems have an effective treatment, to draw up schemes for promotion, cultivation, and regeneration of medicinal plants used in these systems, and to evolve Pharmacopoeial standards for Indian Systems of Medicine and Homoeopathy drugs.

Drugs and Medicines

With regards to medical drug pricing, regulation, and supply, two important policies come into place; The Drug Price Control Orders Act (DPCO), and The National Pharmaceutical Pricing Authority (NPPA).

The Drug Price Control Orders Act (DPCO) is an order issued by the government under the "Essential Commodities Act" which enables it to fix the prices of some essential bulk drugs and their formulations. The objective of the DPCO is to ensure the availability of essential and lifesaving prophylactic medicine of good quality at a reasonable price. Every few years, the Ministry of Health and Family Welfare, in consultation with experts, draws up a National List of Essential Medicines (NLEM). These medicines come under price control under the Drug Price Control Order (DPCO). In addition, under Para 19 of the DPCO, 2013, the government has special powers to bring any item of medical necessity under price controls. As an example, this provision was used to regulate the prices of cardiac stents and knee implants.

The National Pharmaceutical Pricing Authority (NPPA) established by the Government of India in 1997 under the Department of Pharmaceuticals (DoP), Ministry of Chemicals and Fertilizers works as an independent regulator for pricing of drugs and to ensure availability and accessibility of medicines at affordable prices. The functions of the NPPA include implementing and enforcing the provisions of the Drugs (Prices Control) Order by the powers delegated to it. It also maintains data on production, exports, and imports, market share of individual companies for bulk drugs and formulations, and undertakes/sponsors relevant studies in respect of pricing of drugs/pharmaceuticals. Lastly, the NPPA is in charge of rendering advice to the Central Government on changes/ revisions in drug policies[17].

[16] https://www.ayush.gov.in/

[17] http://www.nppaindia.nic.in/en/

Analysing Health Programmes/Schemes

Apart from these policy directives, the Central and State Governments have created various detailed policies and programmes to tackle the varied health problems faced. To ensure that these policies are on the path to meeting their intended outcomes, it is important to empirically analyse them. This section aims to analyse the major Central, State, and Local Government policies being implemented in Mumbai, and gauge whether our public healthcare system is accessible and suggests improvements or interventions if required.

The schemes are divided into 5 main categories namely: (1) Communicable diseases, (2) Non-Communicable diseases (NCD), (3) Reproductive, Maternal, Neonatal, Child and Adolescent Health (RMNCHA+), (4) Nutrition and (5) Insurance schemes. The logic of dividing the schemes as such was laid out by the NHP, 2017. Each scheme studied contains information such as the year of implementation, a background of the scheme, the objectives of the scheme, targets it had set out to meet, the beneficiaries of the scheme, and the implementation status of the scheme (i.e. relevant and recent data about the outcomes of the scheme).

Note: The section includes an analysis of only major schemes that are being implemented in Mumbai.

Table 16: Summary Table of Major Health Programmes/Schemes implemented in Mumbai

Name of the Scheme	Implementing Body	Targets	Status
Communicable Diseases			
Revised National Tuberculosis Control Programme	Mumbai District TB societies under MCGM	Prevalence of less than 1 case per 1 lakh population.	298 cases per 1 lakh population in 2020
National Aids Control Programme	Mumbai District Aids Control Society (MDACS) under MCGM	To reduce new infections by 50%	51% decrease in new cases detected from 2019-20
Urban Malaria Scheme	MCGM Public Health Department	Reduction in transmission and morbidity due to malaria	15,623 malaria cases
The National Vector Borne Disease Control Programme	MCGM Public Health Department	Elimination of malaria by 2030 and Reduction in cases of dengue	9,072 dengue cases
National Leprosy Eradication Programme	MCGM Public Health Department	Prevalence of less than 1 case per 10,000 population Elimination by 2018.	Prevalence rate of 0.25/10,000 of the population as of March 2017
Non-Communicable Diseases			
Non-Communicable Disease Programme	MCGM Public Health Department	To reduce morbidity due to NCDs.	1,75,615 diabetes cases 1,49,281 hypertension cases
National Programme for Control of Blindness	Mumbai District Blindness Society	To reduce the prevalence of blindness to 0.3% of the population by 2020	Data not available

Mental Health			
National Mental Health Programme	State-level Mental Health Cell at Directorate of Health Services Mumbai	Prevention and treatment of mental and neurological disorders and their associated disabilities	**41,159** number of mental health cases
RMNCHA+			
Pulse Polio Programme	MCGM Public Health Department	100% Vaccine Coverage	Average number of children with OPV and IPV dosage is 1,58,870. 0 Polio deaths in 2019
Mission Indradhanush and Intensified Mission Indradhanush	MCGM Public Health Department	To achieve over 90% immunisation coverage	Out of 11 vaccines included, more focus is needed on vaccine coverage for Diarrhoea and Tuberculosis (50 and 49 deaths in 2019)
Janani Suraksha Yojana	Maharashtra State Government	To reduce the Neonatal Mortality	16 deaths/1000 live births
		To reduce Maternal Mortality	164 (deaths per 1,00,000 live births)
Janani Shishu Suraksha Karyakram	Maharashtra State Government	Timely access to health care for newborns and pregnant women	Number of Pregnant Women who registered for antenatal care decreased by 8% from 2019-20 to 2020-21.
Pradhan Mantri Matru Vandana Yojana	Maharashtra State Government	Cash incentives to pregnant women	No data available
Rashtriya Bal Swasthya Karyakram	Maharashtra State Government	30 health conditions for early detection in children	Deaths are caused due to other diseases such as tuberculosis, pneumonia, septicemia and nervous disorders (1,082 deaths) and Hypoxia, Asphyxia and other Conditions Originating in the Perinatal Period that mainly affect infants (1,629 deaths) have not been included.
School Health Scheme	MCGM Medical Officer of School Department	Medical Inspection (Primary Screening) of students in government institutions	Students screened stated “zero children were screened” RTI image is available (refer to annexure 11)
Urban Reproductive and Child Health Programme	MCGM Public Health Department	To improve reproductive health and bring gender parity in family planning measures	33,633 Sexually Transmitted Infections reported 99.91% family planning interventions were targeted towards females.

Nutrition			
National Iron Plus Initiative for Anemia Control	Maharashtra State Government	To reduce anemia in females by 50 percent	5,354 pregnant women reported severely anaemic
Integrated Child Development Services	ICDS Commissionerate, Maharashtra	To improve the nutritional and health status of children in the age group 0-6 years	3,389 severely underweight children
Mid-Day Meal Scheme	MCGM Public Health Department	Improve the effectiveness of primary education by improving the nutritional status of all primary school children	The scheme is being implemented in all Municipal Schools in Mumbai, but there is no data available regarding the quality of food provided.
Insurance			
Ayushman Bharat Pradhan Matri Jan Aarogya Yojana	Maharashtra State Government	To provide medical care to 10.74 crore households.	45,121 persons enrolled in 2020-21, of which 85% (38,381) of them were beneficiaries under the schemes
Mahatma Jyotiba Phule Jan Aarogya Yojana	Maharashtra State Government	To provide insurance policy coverage to beneficiaries in Maharashtra	

1.1 Communicable Disease Schemes

Communicable diseases, also known as infectious diseases or transmissible diseases, are illnesses that result from the infection, presence and growth of pathogens (viruses, bacteria, fungi) in an individual human host.

The table depicts the making and implementation of major programmes/schemes in Mumbai

Government	Central	State	City
Central			
State			
City	• National Leprosy Eradication Programme • National AIDS control Programme • Revised National Tuberculosis Control Programme • National Vector Borne Disease Control Programme • Urban Malaria Scheme		

PROGRAMME MAKING PROGRAMME IMPLEMENTATION

SUSTAINABLE DEVELOPMENT GOALS

Target: *0 TB cases/1 lakh population by 2030* [1]

Status: *298 cases/1 lakh population in 2020* [2]

KEY FINDINGS [3]

- *Although deaths caused due to Tuberculosis (TB) have fallen over the years, in 2019, 65% of the total TB deaths have occurred in the age groups between 20-59 years. In children and youth (0 to 19 years), 377 deaths due to TB were also reported in 2019.*
- *Positive cases detected for Malaria increased from 0.5% in 2019-20 to 1.4% in 2020-21 even though the number of blood smears examined for the same fell by 54% from 2019-20 to 2020-21.*
- *65% decrease was seen in the Rapid Diagnostic Test (RDT) conducted from 2019-20 to 2020-21, while the proportion of positive cases increased from 3.4% in 2019-20 to 7.9% in 2020-21.*
- *In 2020-21, 65% of total HIV tests for females were done on pregnant women, out of which 0.13% tested positive. However, among non-pregnant females tested, those positive increased from 1.3% in 2019-20 to 1.5% in 2020-21.*

[1] SDG India Index, Niti Aayog [2] RTI from Mumbai TB Cell [3] HMIS and RTI Data

1.1.1 Revised National Tuberculosis Control Programme

Year:

1997

Background:

Tuberculosis (TB) is a disease caused by bacteria called Mycobacterium Tuberculosis. It mainly affects the lungs but can also affect other parts of the body such as lymph nodes, the brain, bones, kidneys, etc. TB spreads through the air. When a person suffering from pulmonary TB coughs or sneezes, infectious pathogens are spread in the air through droplets. The National TB Control Programme (NTCP)[18] was started in 1962 to address the problem of high morbidity in TB but had limited success with only a 30-40% treatment completion rate amongst patients put on treatment. Because of this, the Government of India started the Revised National TB Control Programme (RNTCP) with a Directly Observed Treatment Short-course (DOTS) strategy at few selected sites in 1993[19].

Drug-resistant TB, that is Multi-Drug Resistant TB (MDR-TB) and Extensively Drug-Resistant TB (XDR-TB) is a form of TB which is resistant to at least four of the core anti-TB drugs, (isoniazid and rifampicin, fluoroquinolones (such as levofloxacin or moxifloxacin), and to at least one of the three injectable second-line drugs (amikacin, capreomycin or kanamycin).) MDR-TB and XDR-TB both take substantially longer to treat than ordinary (drug-susceptible) TB, and require the use of second-line anti-TB drugs, which are more expensive and have more side effects than the first-line drugs used for drug-susceptible TB.

As per the guidelines of the Central Government, RNTCP has been implemented in Maharashtra since 1997-98 in a phased manner. To implement this programme effectively, the State TB Society and 79 District/City TB Societies have been established. Detailed planning for implementation of the programme is done at State and District levels.

The Central TB division launched **Nikshay Portal** in 2012. Nikshay is a web-based platform for the monitoring of TB patients under the Revised National Tuberculosis Programme (RNTCP). The two broad objectives of Nikshay are to create a database of all TB patients including Multi-Drug Resistant TB cases across India and to use this database for monitoring and research purposes at all levels for controlling TB.

Target:

To control the spread and incidence of cases of TB. TB is said to be in control if the prevalence rate of the disease is below 1 per lakh of the population. The NHP 2017 aims to achieve and maintain a cure rate of >85% in new sputum-positive patients for TB and reduce the incidence of new cases, to reach elimination status by 2025.

Objectives:

1. To achieve a 90% notification rate for all TB cases.
2. To achieve a 90% success rate for all new and 85% for re-treatment cases.
3. To significantly improve the successful outcomes of treatment of Drug-Resistant TB cases.
4. To achieve decreased morbidity and mortality of HIV associated TB
5. To improve outcomes of TB care in the private sector

[18] https://www.nhp.gov.in/revised-national-tuberculosis-control-programme_pg
[19] https://tbcindia.gov.in/WriteReadData/NSP%20Draft%2020.02.2017%201.pdf

Beneficiaries:

All persons infected with TB or at a high risk of getting the infection. 31182.60

Implementation Status in Mumbai:

Table 17: Notified TB cases in Mumbai from 2017 to 2020 as per Nikshay portal as on 30.09.2021

2017			2018			2019			2020			% change from 2019 to 2020
Public	Private	Total	Public	Private	Total	Public	Private	Total	Public	Private	Total	
25,488	8,529	34,017	34,430	22,464	56,894	33,566	26,911	60,477	21,759	21,539	43,298	-28%

Table 18: Age-wise deaths due to TB in Mumbai for the years 2017 to 2019

Cause of Death	Year	0-4 Years	5-19 Years	20-39 Years	40-59 Years	60 Years and Above	Total
Tuberculosis (A15-A16, A17, A18-A19)	2017	57	380	1,673	1,881	1,458	5,449
	2018	39	346	1,404	1,753	1,398	4,940
	2019	37	340	1,436	1,737	1,349	4,899

Inference:

- The number of TB cases notified in public and private hospitals has decreased by 28% from 2019 to 2020.
- Even though Nikshay claims to have a database of MDR and XDR TB patients, the same is not accessible for public.
- Although deaths caused due to tuberculosis have fallen over the years, in 2019 65% of the total TB deaths have occurred in the productive population of the age group 20-59 years.
- 377 deaths due to TB in children and youth (0 to 19 years) were also reported in 2019, highlighting the need for tackling the determinants of the disease such as poor housing, high density of population per sq. km, etc.

RNCTP programme adopted World Health Organisation's (WHO) guidelines and implemented DOTS strategy as the efficient and cost-effective approach for controlling TB. DOTS since its inception is trying to shift the TB cure from the patient to the healthcare system. This is done through strategies of DOTS developed by WHO: sustained political and financial commitment; diagnosis by quality ensured sputum-smear microscopy; Standardised short-course anti-TB treatment (SCC) given under direct and supportive observation (DOT); helps to ensure the right drugs are taken at the right time for the full duration of treatment; a regular, uninterrupted supply of high-quality anti-TB drugs; standardised recording and reporting; helps to keep track of each patient and to monitor overall programme performance.

Table 19: Implementation Status of RNTCP programme in Mumbai from 2016 to 2020

Years (year in which case registered)	2016	2017	2018	2019	2020
No. of notified cases under Nikshay (Public and Private) diagnosis[20] *(from Nikshay Portal)*	NA	34,017	56,894	60,477	43,298
No. of notified cases under Nikshay (Public and Private) resident [21] **(***from TB cell through RTI)*	NA	32,039	46,788	49,628	38,305
Total Cases registered and provided DOTS treatment (a) (New and Retreatment Cases) *(from TB cell through RTI)*	22,462	21,706	24,293	22,703	16,683
MDR Cases registered under RNTCP *(from MCGM website)*[22]	4,770	4,891	4,593	4,212	2,589
XDR Cases registered under RNTCP *(from MCGM website)*	605	670	429	315	51
% of TB Drug Resistance (MDR and XDR) cases	24%	26%	21%	20%	16%
Defaulters from DOTS Programme *(from TB cell through RTI)* ***(b)***	2,258	2,323	1,769	1,285	543
Defaulter cases in % (b*100/a)	10%	11%	7%	6%	3%
Number of deaths under MCGM's TB Control Unit(RNTCP) *(from TB cell through RTI)*	963	803	1,481	1,674	1,352
Number of deaths under MCGM's Registration of Births and Deaths. *(from MCGM and state government through RTI)*	6,660	5,449	4,940	4,899	NA

NA: Complete data was not available from the respective sources for that year.

[20] The total notified cases on the Nikshay portal (public and private) used for public access are referred to as 'diagnosed' cases, which are total diagnosed cases in the city's facilities, available on the Nikshay portal for the years 2017 and 2019.
[21] Whereas the total notified cases under Nikshay (public and private) categorised as 'resident' cases, got from the TB cell, Mumbai are those cases followed up by the cell for treatment, for all patients who are resident in the city, available for the year 2018 and 2019.
[22] MDR and XDR data from MCGM website: https://portal.mcgm.gov.in/irj/go/km/docs/documents/MCGM%20Department%20List/Public%20Health%20Department/Docs/Tuberculosis%20Department/Updated%20RNTCP%20Website%20Data.pdf

Inference:

- From 2017 to 2020, an average of total notified cases under Nikshay portal (Public and Private) from Mumbai TB cell is 41,690.
- However, since 2017, on an average only 51% (21,346) of 41,690 were registered under RNTCP for DOTS treatment.
- Of the total cases registered, the percentage of drug-resistant TB cases (MDR and XDR) have been decreasing from 26% in 2017 to 16% in 2020, as a result of total cases falling.
- The percentage of defaulter cases decreased from 7% in 2018 to 3% in 2020.

1.1.2 National Aids Control Programme

Year:

1992

Background:

The National AIDS Control Programme (NACP)[23] is being implemented as a comprehensive programme for the prevention and control of HIV/AIDS in India. Over time, the focus has shifted from raising awareness to behaviour change, from a national response to a more decentralised response, and to increase the involvement of NGOs and networks of people living with HIV (PLHIV).

- The NACP I started in 1992 was implemented to slow down the spread of HIV infections to reduce morbidity, mortality, and impact of AIDS in the country.
- In 1999, the second National AIDS Control Project (NACP II) was launched to reduce the spread of HIV infection in India and to increase India's capacity to respond to HIV/AIDS on a long-term basis.
- NACP III was launched in 2007 to halt and reverse the epidemic over its five-year period.
- NACP IV, launched in 2012, aimed to accelerate the process of reversal and further strengthen the epidemic response in India through a cautious and well-defined integration process over the next five years.

The NHP 2017 sets out the goal to achieve the global target of 2020 set by the Joint United Nations Programme on HIV/AIDS (UNAIDS) which is also termed as the target of 90:90:90[24] for HIV/AIDS i.e. 90% of all people living with HIV know their HIV status, 90% of all people diagnosed with HIV infection receive sustained antiretroviral therapy and 90% of all people receiving antiretroviral therapy will have viral suppression[25].

In Mumbai, the NACP is implemented by the Mumbai District Aids Control Society (MDACS), an autonomous body established in 1998 by MCGM. It employs a multi-sectoral approach, collaborating with the general Health System, other Government departments, NGOs/CBOs, and the private sector.

Objectives:

To halt and reverse the epidemic in India by integrating programmes for prevention, care, support, and treatment through a four-pronged strategy i.e.:

1. Prevent infections through coverage of high-risk groups with targeted interventions (TIs) and scaled-up interventions in the general population.
2. Provide greater care, support, and treatment to a larger number of PLHA.
3. Strengthen the infrastructure, systems, and human resources in prevention, care, support, and treatment programmes at district, state, and national levels.
4. Strengthen the nationwide Strategic Information Management System.

Target:

To reduce the rate of incidence by 60 percent in the first year of the programme in high prevalence states to obtain the reversal of the epidemic, and by 40 percent in the vulnerable states to stabilise the epidemic. In Mumbai, the target is to reduce new infections by 50% (2007 Baseline of NACP III)[26]

[23] http://naco.gov.in/nacp
[24] https://www.unaids.org/sites/default/files/media_asset/90-90-90_en.pdf
[25] https://main.mohfw.gov.in/sites/default/files/24%20Chapter%20496AN2018-19.pdf
[26] http://naco.gov.in/sites/default/files/Annual%20Report%20NACO-2018-19%20%281%29.pdf

Beneficiaries:

All persons afflicted by HIV/AIDS and those at high risk of contracting the disease.

Implementation Status in Mumbai:

Table 20: HIV cases tested and positive in Mumbai from 2018-19 to 2020-21

HIV/AIDS Cases		2018-19	2019-20	% change from 2018-19 to 2019-20	2020-21	% change from 2019-20 to 2020-21
Total Male	Tested	2,60,102	2,38,330	-8%	1,17,092	-51%
	Positive	3,965	3,813	-4%	1,716	-55%
	%	1.5%	1.6%	0.08%	1.47%	-0.1%
Total Female	Tested	3,58,726	3,75,714	5%	2,06,093	-45%
	Positive	2,575	2,271	-12%	1,225	-46%
	%	0.7%	0.6%	-0.1%	0.59%	-0.01%
Pregnant Women (Out of the Total Female)	Tested	2,02,820	2,15,867	6%	1,34,107	-38%
	Positive	245	248	1%	180	-27%

Table 21: Age-wise deaths due to HIV in Mumbai for the years 2017 to 2019

Cause of Death	Year	0-4 Years	5-19 Years	20-39 Years	40-59 Years	60 Years and Above	Total
Human Immunodeficiency Virus (HIV) (B20-B24)	2017	6	26	269	513	67	881
	2018	2	32	231	486	71	822
	2019	1	29	195	373	87	685

Inference:

- In 2020-2021, during the COVID 19 pandemic, the number of HIV tests conducted fell by 51% for males and 45% for females.
- The proportion of males (1.47%) tested positive is higher than females (0.59%) in 2020-21.
- In 2020-21, 65% of total tests for females were on pregnant women, out of which 0.13% tested positive.
- However, among non-pregnant females tested, those who tested positive increased from 1.3% in 2019-20 to 1.5% in 2020-21.
- From 2018-19 to 2020-21, males constitute on an average 61% of total HIV-positive cases, yet in 2020-21 only 36% of total tests were for males.
- Thus, more focus needs to be laid to increase HIV testing for males as well.
- Though the number of positive cases has been decreasing, interventions need to be made to analyse high-risk areas for HIV, early detection and provide medical support and treatment.

1.1.3 Urban Malaria Scheme

Year:
1971

Background:
Due to the high prevalence of Malaria (due to stagnating water), a plan to initiate anti-larval and anti-parasitic measures were created to abate malaria transmission in urban areas, the central government approved a scheme for malaria prevention in 1971 and named as Urban Malaria Scheme[27] which is complementary to the National Vector Borne Disease Control Programme. In Mumbai, it is implemented by the MCGM Surveillance Department[28].

Objectives:

1. To prevent deaths due to Malaria.
2. Reduction in transmission and morbidity due to Malaria.

Target:
Reduction of the disease to a tolerable level in which the human population can be protected from malaria transmission with the available means.

Beneficiaries:
Those afflicted with Malaria and at high risk of contracting Malaria

[27] https://nvbdcp.gov.in/index4.php?lang=1&level=0&linkid=529&lid=3822
28https://portal.mcgm.gov.in/irj/go/km/docs/documents/MCGM%20Department%20List/Public%20Health%20Department/Docs/Surveillance/AIM.pdf

Implementation Status in Mumbai:

Table 22: Testing and cases for Malaria in Mumbai from 2018-19 to 2020-21[29]

Criteria	2018-19	2019-20	% change from 2018-19 to 2019-20	2020-21	% change from 2019-20 to 2020-21
Total Blood Smears Examined for Malaria	14,04,777	14,26,624	2%	6,55,514	-54%
Malaria (Microscopy Tests) - Positive	9,363	7,599	-19%	9,015	19%
% of Positive Cases	0.7%	0.5%	-0.1%	1.4%	1%
RDT (Rapid diagnostic test) conducted for Malaria	1,99,457	2,40,422	21%	83,495	-65%
Malaria (RDT) - Positive	6,669	8,178	23%	6,608	-19%
% of Positive Cases	3.3%	3.4%	0.1%	7.9%	5%
Total Malaria Cases	**16,032**	**15,777**	**-2%**	**15,623**	-1%
Hospitalised Cases	7,940	7,067	-11%	5,037	-29%

Inference:

- The number of blood smears examined for Malaria fell by 54% from 2019-20 to 2020-21, however, positive cases detected from these microscopy tests increased from 0.5% in 2019-20 to 1.4% in 2020-21.
- A similar decrease was seen in the RDT tests conducted from 2019-20 to 2020-21, while the proportion of positive cases increased from 3.4% in 2019-20 to 7.9% in 2020-21.
- The total number of malaria cases decreased by 1% from 2019-20 to 2020-21, but with the rise in the proportion of positive cases for the same period, it is necessary to increase the number of malaria tests, especially during a pandemic, to detect the actual number of malaria cases in Mumbai.

Table 23: Age-wise deaths due to Malaria in Mumbai for the years 2017 to 2019

Cause of Death	Year	0-4 Years	5-19 Years	20-39 Years	40-59 Years	60 Years and Above	Total
Malaria (B50-B54)	**2017**	1	9	23	25	42	100
	2018	5	3	16	16	29	69
	2019	1	3	20	18	27	69

Inference:

Malaria deaths have remained constant from 2018 to 2019 showing that the Urban Malaria Scheme has to undertake a more holistic approach by increasing testing as well as investing in social determinants such as sanitation and fogging to tackle the disease more effectively.

[29] Microscopy is inexpensive and allows the identification of species and parasite density. However, the quality of microscopy-based diagnosis is frequently inadequate due to a variety of reasons. Microscopy has low sensitivity when performed by poorly trained personnel and may result in the over- or under-diagnosis of malaria, with excessive use of anti-malarial drugs or negligent treatment, which invariably contributes to malaria morbidity and the development of resistance. Malaria rapid diagnostic tests (RDTs) assist in the diagnosis of malaria by providing evidence of the presence of malaria parasites in human blood. RDTs are an alternative to diagnosis based on clinical grounds or microscopy, particularly where good quality microscopy services cannot be readily provided. Malaria RDTs detect specific antigens (proteins) produced by malaria parasites in the blood of infected individuals.

1.1.4 The National Vector Borne Disease Control Programme

1.1.4.1. Malaria

Year:
2003

Background:
The National Vector Borne Disease Control Programme is implemented by the MCGM Surveillance Department which works for the prevention and control of malaria in Mumbai[30]. The control of malaria in the urban areas is a complementary programme in line with National Vector Borne Disease Control Programme (NVBDCP)[31] in rural areas.

Objectives:
1. To actively search for malaria patients and ensure the provision of complete radical treatment to control the spread of malaria
2. Reduction of the disease to a tolerable level in which the human population can be protected from malaria transmission with the available means
3. Prevention of malaria-related deaths
4. Reduction in transmission and morbidity

Target:
The target for this scheme is to eliminate malaria by 2030.

Beneficiaries:
Those afflicted with Malaria and at high risk of contracting Malaria (High risk is measured by the Epidemiological Cell after analysing disease trends on the spread of diseases in communities).

[30] https://portal.mcgm.gov.in/irj/go/km/docs/documents/MCGM%20Department%20List/Public%20Health%20Department/Docs/Surveillance/AIM.pdf
[31] https://main.mohfw.gov.in/sites/default/files/5201617.pdf

1.1.4.2 Dengue

Year:

2003

Background:

Dengue Fever is caused by four antigenically related but distinct dengue virus serotypes transmitted by the infected mosquitoes, Aedes Aegypti. According to the National Vector Borne Disease Control Programme, Dengue infections have historically peaked during the monsoon and post-monsoon months in India (July-October). This is because areas where rainwater collects or is stored present themselves as high-risk breeding grounds for dengue.[32] It is implemented by the MCGM Surveillance Department.

Objectives:

1. Surveillance for disease and outbreaks
2. Early diagnosis and prompt case management
3. Vector control through community participation and social mobilisation
4. Capacity building for the effective control over the transmission of the disease

Target:

No target is mentioned

Beneficiaries:

All those afflicted with dengue or at risk of contracting dengue

Implementation Status in Mumbai:

Table 24: Testing and cases of Dengue in Mumbai from 2018-19 to 2020-21

Testing and Cases	2018-19	2019-20	% change from 2018-19 to 2019-20	2020-21	% change from 2019-20 to 2020-21
RDT (Rapid diagnostic tests) Test Positive	29,378	28,031	-5%	5,129	-82%
Enzyme- Linked Immuno Sorbent Assay (ELISA) Test Positive	5,157	7,349	43%	3,943	-46%
Total Dengue Cases	34,535	35,380	2%	9,072	-74%
Cases with Hospitalisation	17,698	16,702	-6%	1,300	-92%

Inference:

- The number of positive RDT tests for dengue reduced by 82% from 2019-20 to 2020-21. It shows that there could have been a decline in the number of tests carried out for Dengue during the pandemic.
- The total number of reported dengue cases has also decreased from 35,380 in 2019-20 to 9,072 in 2020-21 (74% decline).
- Hospitalisation cases for dengue decreased by 92% from 2019-20 to 2020-21.

[32] https://nvbdcp.gov.in/index4.php?lang=1&level=0&linkid=443&lid=3720

- Further, the proportion of hospitalised cases with relation to the total dengue cases decreased from 47% in 2019-20 to 14% in 2020-21.
- It is unlikely that this fall is due to an actual decrease in dengue cases but could be attributed to the high non-availability of beds due to the larger number of COVID cases during that period.
- To understand the reality in Mumbai, increasing testing for dengue fever can be carried out in the following years.

Table 25: Age-wise deaths due to Dengue in Mumbai for the years 2017 to 2019

Cause of Death	Year	0-4 Years	5-19 Years	20-39 Years	40-59 Years	60 Years and Above	Total
Dengue Fever (A97)	2017	48	61	86	73	80	348
	2018	13	50	74	43	59	239
	2019	34	44	78	62	63	281

Inference:

Total deaths related to dengue increased from 239 in 2018 to 281 in 2019, with highest in the age group of 20-39 years (78 deaths).

Table 26: Month-wise Comparison of Malaria and Dengue[33] Cases in Mumbai from 2018-19 to 2020-21

Month	Malaria			Dengue		
	2018-19	2019-20	2020-21	2018-19	2019-20	2020-21
April	641	669	260	381	370	182
May	858	925	254	676	498	67
June	1,045	1,063	507	785	754	224
July	2,336	1,574	1,522	2,270	1,927	525
August	3,048	2,166	3,152	5,346	3,628	549
September	2,410	2,620	2,267	8,829	7,033	1,344
October	2,543	1,810	1,434	10,242	9,267	1,132
November	1,193	997	1,288	3,859	5,590	1,008
December	742	586	1,125	944	2,808	217
January	359	2,345	2,114	499	2,052	1,112
February	341	651	1,151	316	1,216	1,581
March	516	371	549	388	237	1,131
Total	**16,032**	**15,777**	**15,623**	**34,535**	**35,380**	**9,072**

[33] While the malaria mosquito (Anopheles) breeds in accumulating water in open areas, the dengue mosquito (Aedes aegypti) breeds in freshwater in domestic areas in and around the household. A combination of conditions such as bouts of heavy rainfall, succeeded by dry spells of no rain, leading to the accumulation of water creates an atmosphere for mosquitoes to breed and for their eggs to grow from a larval stage to an adult stage. When there is continuous rainfall, water is constantly washed away thereby making it impossible for mosquito larvae to grow to full adulthood (which takes 7 days). It is the period of no rain following this that allows them to reach maturity and consequently start infecting humans.

Inference:

- The month-wise trend analysis of both diseases showed malaria and dengue cases increase from June till October, thus interventions for preventive measures like fogging must increase in these periods.
- In this scheme specifically, there is a need to prioritise the number of tests carried out especially in low-income areas and attention must be given to the social determinants that cause these diseases i.e., sanitation and stagnating water.

1.1.5 National Leprosy Eradication Programme

Year:

1983

Background:

The National Leprosy Eradication Programme (NLEP) aimed to reduce the burden of leprosy in the country. The country achieved the goal of leprosy elimination as a public health problem (i.e. prevalence rate of less than 1 case/ 10,000 population) at the national level by December 2005, as set out by The NHP 2002. The NHP 2017 sets out the goal to achieve and maintain the elimination status of leprosy. In Mumbai, the NLEP is integrated with general healthcare services. Leprosy cases are detected by the general health workers who then refer suspected leprosy patients to a medical officer at a PHC for diagnosis who are expected to diagnose the case within seven days.[34]

Objectives:

1. Elimination of leprosy by strengthening disability prevention and medical rehabilitation of persons affected by leprosy.
2. Reduction in the level of stigma associated with leprosy.

Target:

Prevalence of less than 1 case per 10,000 population in all districts of the country. Elimination of leprosy by 2018. Elimination of the proportion of Grade-2 cases amongst new cases keeping in mind the global goal of reduction of Grade 2 disability to less than 1 per million by 2020.

Beneficiaries:

Afflicted leprosy patients and those at high risk of contracting leprosy

Implementation Status in Mumbai: The national prevalence rate as of March 2017 was 0.82/10,000 population. In Mumbai, the prevalence rate as mentioned on the MCGM website as of March 2017 was 0.25/10,000 of the population[35]. Though we have already surpassed our target of less than 1/10000 of the population, concerted efforts will need to continue to eliminate the disease- data shows 53 reported cases in government health services in 2018-19.

[34] http://clinicalestablishments.gov.in/WriteReadData/516.pdf

[35] https://portal.mcgm.gov.in/irj/go/km/docs/documents/MCGM%20Department%20List/Public%20Health%20Department/Docs/National%20Leprosy%20Eradication%20Programme.pdf

1.2. Non-Communicable Diseases Schemes

Non Communicable Diseases, also known as chronic diseases, tend to be of long duration and are the result of a combination of genetic, physiological, environmental and behavioral factors.

The table depicts the making and implementation of major programmes/schemes in Mumbai

Government	Central	State	City
Central			
State			
City	National Programme for Control of Blindness		NCD Control Programme

PROGRAMME MAKING PROGRAMME IMPLEMENTATION

SUSTAINABLE DEVELOPMENT GOALS

Target: *To reduce by one third premature mortality from NCDs by 2030.*[1]

Status: *The deaths due to diabetes have increased by 352% while due to hypertension has decreased by 9% from 2015 to 2019.*[2]

KEY FINDINGS[3]

- *NCD Programme covers diabetes which is a major cause of death in Mumbai (11,491 deaths in 2019).*
- *Other NCDs such as neoplasms (10,303 deaths in 2019) and respiratory diseases (7,917 deaths in 2019) also account for major causes of NCD related deaths.*
- *However, they are not covered under the NCD programme in MCGM.*
- *Similarly, while hypertension is covered under the NCD programme, it accounts for only 4,066 of the total 27,072 deaths due to heart and circulatory system-related diseases in 2019.*

[1] SDG Index India, Niti Aayog [2&3] Cause of Death Data through RTI

1.2.1 Non-Communicable Disease Control Programme

Year:

2010

Background:

The Non-Communicable Disease Programme for Diabetes and Hypertension is currently implemented by the Non-Communicable Disease Cell (NCD cell), MCGM at the stage of Primary Health Care. Although the NCD cell is set up in Mumbai this is not under the National Programme for Prevention and Control of Cancer Diabetes Cardiovascular Diseases and Stroke implemented in Maharashtra which only covers 6 districts namely Amravati, Bhandara, Chandrapur, Gadchiroli, Wardha, and Washim.[36]

The functions of the NCD Cell in Mumbai include:

1. To keep a check on growing morbidity and mortality due to NCDs
2. To provide facilities for screening, detection, treatment, and referral for Diabetes and Hypertension at all MCGM dispensaries
3. To create and enforce referral linkages with secondary and tertiary hospitals
4. To undertake community awareness campaigns using various forms of media and methods to create awareness and promote screening amongst the general population
5. To conduct camps at the community level to create awareness and promote early screening of NCDs[37]

Objectives:

1. To prevent and control NCDs in the city of Mumbai.
2. Presently primarily for diabetes and hypertension goal is to create awareness about NCD, promote screening amongst the general population of Mumbai
3. To strengthen early diagnosis and treatment for Diabetes and Hypertension
4. Keep a check on growing morbidity and mortality due to NCDs

Target:

Community awareness regarding NCDs and lifestyle changes among citizens to reduce the morbidity due to NCDs. The NHP 2017 also sets out the goal to reduce premature mortality from cardiovascular diseases, cancer, diabetes, or chronic respiratory diseases by 25% by 2025.

Beneficiaries:

Individuals suffering from diabetes or hypertension, at risk of contracting either disease or at risk of mortality of either disease (Risk factors include: being obese, having a family history of diabetes, high levels of stress, pregnancy, having TB, or any other immunocompromised condition).

[36] https://arogya.maharashtra.gov.in/Site/Form/DiseaseContent.aspx?CategoryDetailsID=bDfNKKgG7mQ=

[37] https://portal.mcgm.gov.in/irj/go/km/docs/documents/MCGM%20Department%20List/Public%20Health%20Department/Docs/Annexure-A%20NCD.pdf

Implementation Status in Mumbai:

Table 27: Cases of Diabetes and Hypertension from 2018-19 to 2020-21

Cases	2018-19	2019-20	% change from 2018-19 to 2019-20	2020-21	% change from 2019-20 to 2020-21
Diseases covered under the NCD programme					
Diabetes	2,46,073	2,49,034	1%	1,75,615	-29%
Hypertension	1,79,353	1,91,529	7%	1,49,281	-22%

Inference:

The NCD scheme focuses on interventions for diabetes and hypertension. In 2020-21, the cases registered for these two diseases have decreased from 2019-20 to 2020-21.

Table 28: Age-wise Deaths due to Major NCD diseases in Mumbai from 2017 to 2019

Cause of Death	Year	0-4 Years	5-19 Years	20-39 Years	40-59 Years	60 Years and Above	Total
Disease Of The Circulatory System (I00-I99)	**2017**	110	116	1,008	5,251	18,582	25,067
	2018	92	118	1,071	5,346	19,335	25,962
	2019	96	103	1,037	5,651	20,185	27,072
Diabetes Mellitus (E10-E14)	**2017**	5	11	112	1,884	7,513	9,525
	2018	8	7	122	2,109	8,212	10,458
	2019	3	11	121	2,325	9,031	11,491
Neoplasms (Cancer) (C00-D48)	**2017**	65	112	579	2,885	5,231	8,872
	2018	116	292	704	3,165	5,796	10,073
	2019	116	289	728	3,168	6,002	10,303
Diseases Of the Respiratory System (J00-J98)	**2017**	478	198	489	1,228	5,342	7,735
	2018	488	177	466	1,191	5,632	7,954
	2019	360	170	480	1,316	5,591	7,917
Hypertension (I10-I15)	**2017**	4	6	97	585	3,001	3,693
	2018	1	4	106	554	3,066	3,731
	2019	2	10	90	649	3,315	4,066
Diseases of the Nervous system (G00-G98)	**2017**	165	155	250	432	1,424	2,426
	2018	147	165	249	440	1,536	2,537
	2019	134	166	237	396	1,609	2,542

Inference:

- NCD Programme covers diabetes which is a major cause of death in Mumbai (11,491 deaths in 2019).
- Other NCDs such as neoplasms (10,303 deaths in 2019) and respiratory diseases (7,917 deaths in 2019) also account for major causes of NCD related deaths.
- However, they are not covered under the NCD programme in MCGM.
- Similarly, while hypertension is covered under the NCD programme, it accounts for only 4,066 of the total 27,072 deaths due to heart and circulatory system-related diseases in 2019.

1.2.2 National Programme for Control of Blindness

Year:

1976

Background:

The Government of India started the National Programme for Control of Blindness (NPCB) to strengthen the systems to reduce preventable blindness, promote awareness, and increase institutional capacity[38]. The implementation of the programme was decentralised in 1994-95 with the formation of the District Blindness Society in every district expected to enhance the coverage and improve the quality of eye care services[39].

Objectives:

1. To reduce the backlog of avoidable blindness through identification and treatment of curable blindness at primary, secondary, and tertiary levels, based on the assessment of the overall burden of visual impairment in the country;
2. Develop and strengthen the strategy of NPCB for "Eye Health for All" and prevention of visual impairment; through the provision of comprehensive universal eye-care services and quality service delivery;
3. Strengthening and up-gradation of Regional Institutes of Ophthalmology (RIOs) to become centre of excellence in various subspecialties of ophthalmology and also other partners like Medical College, District Hospitals, Sub-district Hospitals, Vision Centres, NGO Eye Hospitals;
4. Strengthening the existing infrastructure facilities and developing additional human resources for providing high-quality comprehensive Eye Care in all Districts of the country;
5. To enhance community awareness on eye care and lay stress on preventive measures; Increase and expand research for prevention of blindness and visual impairment;
6. To secure the participation of Voluntary Organisations/Private Practitioners in delivering eye care.

Target:

1. To reduce the prevalence of blindness from 1.49% (in 1986-89) to 0.3% by 2020.
2. To establish infrastructure and efficiency levels in the programme to be able to cater to new cases of blindness each year to prevent future backlog.

Beneficiaries:

Individuals with moderate or severe visual impairment, visual acuity of less than 3/60 (Snellen) or its equivalent, corneal blindness, etc.

Implementation Status in Mumbai:

No data was available in the public domain regarding cases of blindness, the number of ophthalmologists, or facilities for the same.

[38] https://dghs.gov.in/content/1354_3_NationalProgrammeforControlofBlindnessVisual.aspx#:~:text=Introduction-,National%20Programme%20for%20Control%20of%20Blindness%20and%20Visual%20Impairment%20(NPCB%26VI,blindness%20to%200.3%25%20by%202020.

[39] https://portal.mcgm.gov.in/irj/go/km/docs/documents/MCGM%20Department%20List/Public%20Health%20Department/Docs/NPCB%20Information%2017-18%20English.pdf

1.3. Mental Health Schemes

Mental health includes our emotional, psychological, and social well-being and is not just the absence of mental illnesses.

The table depicts the making and implementation of major programmes/schemes in Mumbai

Government	Central	State	City
Central			
State	National Mental Health Programme		
City			

PROGRAMME MAKING PROGRAMME IMPLEMENTATION

SUSTAINABLE DEVELOPMENT GOALS

Target: *Promote mental health and well-being.*[1]

Status: *41,159 number of mental health cases in 2020-21.*[2]

KEY FINDINGS[3]

- *Since the inception of the Mental Health Care Act, people seeking medical interventions for mental health have declined by 63% from 2018-19 to 2020-21.*
- *During the lockdown, it was seen that a lot of focus was on the importance of mental health care, however, the number of mental health cases dropped by 55% from 2019-20 to 2020-21.*
- *The "Impact on COVID-19" survey also highlighted that a majority of 84% respondents faced various mental health issues but did not discuss their problems with anyone.*
- *Deaths due to mental and behavioural disorders have increased in children between the age of 5-19 and adults between the ages of 20-39 in 2019.*
- *There is a need to include Mental health services in general health facilities as well as in schemes that target children and young adults.*

[1] SDG Index, Niti Aayog [2] HMIS Data [3] HMIS and RTI Data

1.3.1 National Mental Health Programme

Year:
1982

Background:
The National Mental Health Programme (NMHP)[40] was launched by the Central government keeping in mind the prevalence of mental illnesses in the community, and the absolute inadequacy of mental healthcare infrastructure in the country to cope with the increasing disease burden. It was recognised that persons with mental illness constitute a vulnerable section of society and are subject to discrimination; families bear disproportionate financial, physical, mental, emotional, and social burden of providing treatment and care for their relatives with mental illness; persons with mental illness should be treated like other persons with health problems; the environment around them should be made conducive to facilitate recovery rehabilitation and full participation in society.

The District Mental Health Programme was added to the Programme in 1996. The Programme was re-strategised in 2003 to include two schemes- the modernisation of state mental hospitals and up-gradation of psychiatric wings of medical colleges/general hospitals. The Manpower Development Scheme (Scheme-A and B) became part of the Program in 2009.

In 2017, the Mental Health Care Act was passed to provide for mental healthcare and services for persons living with mental illness and to protect, promote and fulfill the rights of such persons during delivery of mental healthcare and services and for matters connected therewith or incidental thereto. This Act superseded the previously existing Mental Health Act, 1987[41].

In Maharashtra,[42] there is an independent 'Mental Health Cell' operative in the Directorate of Health Services and The Addl. Director Health Services (Mental Health) is the nodal officer of this programme.

Objectives:
1. To make mental health services available, along with the other health services in the remote and rural population of the country.
2. To delegate various tasks and responsibilities to the suitable personnel in the general health services, in an appropriate way in case of mental health services.
3. To incorporate mental health services with other general health services and to make mental health services, an integral part of general health services.
4. To associate mental health knowledge and services, in social development schemes in general.
5. To ensure people's participation in delivering and developing mental health care services in society.

Target:
1. Prevention and treatment of mental and neurological disorders and their associated disorders.
2. Use of mental health technology to improve general health services.
3. Application of mental health principles in total national development to improve quality of life.

[40] https://www.nhp.gov.in/national-mental-health-programme_pg
[41] https://nhm.gov.in/images/pdf/National_Health_Mental_Policy.pdf
https://nhm.gov.in/WriteReadDatas/pdf/programmes/NMHP/District_Level_Activities.pdf
[42] https://www.arogya.maharashtra.gov.in/

Beneficiaries:

Individuals living with neuropsychiatric disorders. According to Mental Healthcare Act 2017: "Mental illness" means a substantial disorder of thinking, mood, perception, orientation, or memory that grossly impairs judgment, behaviour, capacity to recognise reality or ability to meet the ordinary demands of life, mental conditions associated with the abuse of alcohol and drugs, but does not include mental retardation which is a condition of arrested or incomplete development of mind of a person, especially characterised by subnormality of intelligence.

Implementation Status in Mumbai:

Table 29: Mental Health cases in Public Institutions from 2018-19 to 2020-21

Cases	2018-19	2019-20	% change from 2018-19 to 2019-20	2020-21	% change from 2019-20 to 2020-21
Total Number mental health cases	1,10,257	90,674	-18%	41,159	-55%

Inference:

- Since the inception of the Mental Health Care Act in 2017, in the last three years' people seeking medical interventions for mental health have declined by 63% from 2018-19 to 2020-21.
- During the lockdown, it was seen that a lot of focus was on the importance of mental health care, however, the number of mental health cases dropped by 55% from 2019-20 to 2020-21.

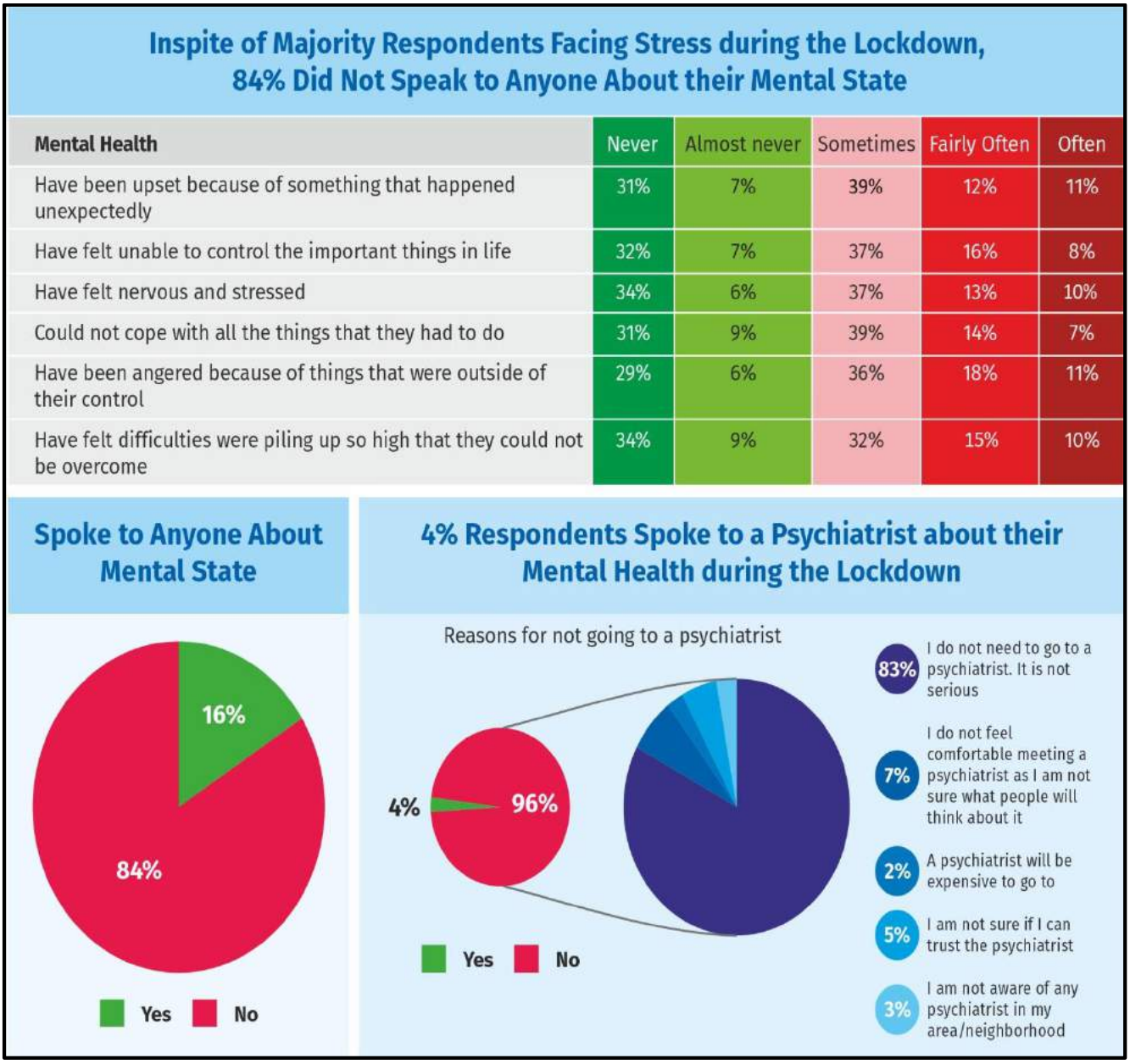
Table 30: Age wise Deaths due to mental disorders in Mumbai from 2017 to 2019

Cause of Death	Year	0-4 Years	5-19 Years	20-39 Years	40-59 Years	60 and Above Years	Total
Mental and behavioural disorders (F01-F99)	**2017**	8	21	62	146	210	447
	2018	10	18	63	134	259	484
	2019	7	30	78	134	226	475
Suicide (X60-X84)	**2017**	0	0	1	1	0	2
	2018	0	3	8	1	1	13
	2019	0	1	4	0	1	6

Inference:

- The number of deaths for mental and behavioural disorders has increased from 447 deaths in 2017 to 475 deaths in 2019. Also, these deaths have increased in children between the age of 5-19 and adults between the ages of 20-39 in 2019.

Figure 4: Impact of COVID 19 on Mental Health of people in Mumbai*



Mental Health	Never	Almost never	Sometimes	Fairly Often	Often
Have been upset because of something that happened unexpectedly	31%	7%	39%	12%	11%
Have felt unable to control the important things in life	32%	7%	37%	16%	8%
Have felt nervous and stressed	34%	6%	37%	13%	10%
Could not cope with all the things that they had to do	31%	9%	39%	14%	7%
Have been angered because of things that were outside of their control	29%	6%	36%	18%	11%
Have felt difficulties were piling up so high that they could not be overcome	34%	9%	32%	15%	10%

*Link to the study

Inference:

- The "Impact on COVID-19" survey also highlighted that a majority of 84% respondents faced mental health issues but did not discuss their problems with anyone.
- Only 4% of the respondents spoke to a physiatrist about their mental health during the lockdown.
- Out of the remaining 96% respondents, 83% did not consider their stress a serious matter and 7% did not feel comfortable to consult a physiatrist.
- There is a need to create awareness among the citizens about the myths and stigmas associated with mental health care and encourage residents to come forward and seek medical attention.

1.4. Reproductive, Maternal, Neonatal, Child and Adolescent Health (RMNCHA+) Schemes

RMNCHA+ schemes comprise the following policy components, Maternal and Child survival, and Child and Adolescent Health, Reproductive and Sexual Health.

The table depicts the making and implementation of major programmes/schemes in Mumbai

Government	Central	State	City
Central			
State	• Janani Suraksha Yojana • Janani Shishu Suraksha Karyakram • Rashtriya Bal Swasthya Karyakram • Pradhan Mantri Matru Vandana Yojana		
City	• Pulse polio programme • Mission Indradhanush and Intensified Mission Indradhanush • Urban Reproductive and Child Health Programme		School Health Scheme

PROGRAMME MAKING PROGRAMME IMPLEMENTATION

SUSTAINABLE DEVELOPMENT GOALS

Target: *Reduce Maternal Mortality Rate to 70 by 2030 and Under 5 Mortality Rate to 25 by 2030.*[1]

Status: *Maternal Mortality Rate was 164 and Under 5 Mortality Rate was 26 in 2020.*[2]

KEY FINDINGS[3]

Child Health

- *The average number of children with OPV and IPV dosage in Mumbai decreased from 1,69,465 in 2019-20 to 1,58,870 in 2020-21.*
- *There is a need to focus on better outreach of vaccines for Diarrhoea and TB (50 and 49 child deaths respectively in 2019) while continuing vaccination for others to keep the mortality low.*
- *Rashtriya Bal Swasthya Karyakram does not include the deaths such as tuberculosis, pneumonia, septicemia, and nervous disorders (1,082 deaths) apart from hypoxia, asphyxia, and other conditions originating in the perinatal period that mainly affects infants (1,633 deaths).*

Maternal Health

- *The number of Pregnant Women (PW) who registered for antenatal care decreased by 20% from 2018-19 to 2020-21. Furthermore, the number of PW given IFA tablets decreased by 14% from 2018-19 to 2019-20 and further decreased by 6% from 2019-20 to 2020-21.*

[1] SDG India Index, Niti Aayog [2] MCGM MIS Cell [3] HMIS and RTI Data

- *Janani Shishu Suraksha Karyakram data from 2019-20 to 2020-21, shows a decrease (of 7%) in the number of pregnant women provided free medicines and diagnostics under the scheme.*
- *The Maternal Mortality Rate (deaths per 1,00,000 live births) has shown a decrease from 199 in 2016 to 164 in 2020. This however is much higher than the SDG goal set which is 70 deaths per 1,00,000 live births.*

Reproductive Health

- *On an average, 69% of the total Reproductive Tract Infections (RTI) / Sexually Transmitted Infections (STI) cases (from 2018-19 to 2020-21) were reported in females showing that the burden of sexually transmitted infections is mostly for females.*
- *IUCD insertion (excluding Post Abortion IUCD and Postpartum IUCD) shows an increase of 4% from 2019-20 to 2020-21 and Antara dosages showed an average decrease of 58% for the same period. A decrease of 40% in the number of emergency contraceptive pills (ECP) distributed for the same period was also noticed.*
- *The large decrease in Emergency Contraceptive Pills ECP and other contraceptive measures distributed shows that a significant proportion of the female population did not have access to contraceptive measures during the pandemic.*
- *Even with the huge decrease in interventions in 2020-21, female contraceptive interventions made up an average of 99.82% of all family planning interventions from 2018-19 to 2020-21. On the other hand, male contraceptive interventions only made up 0.18% on an average.*

1.4.1 Pulse Polio Programme

Year:
1995

Background:
With the global initiative of eradication of polio following the World Health Assembly resolution in 1988, the Pulse Polio Immunisation Programme was launched in India in 1995. Children in the age group of 0-5 years were administered polio drops during the national and sub-national immunisation rounds (in high-risk areas) every year. About 172 million children are immunised during each National Immunisation Day (NID)[43]. The WHO removed India from the list of countries with active endemic wild poliovirus transmission after India reported its last case in 2011[44].

Objectives:
The Pulse Polio Initiative was started to achieve a hundred percent coverage under Oral Polio Vaccine. It aimed to immunize children through improved social mobilisation, plan mop-up operations in areas where poliovirus has almost disappeared, and maintain a high level of morale among the public.

Target:
The target of this programme is to reach every eligible child through the dual booth immunisation strategy and house to house immunisation component.

Beneficiaries:
All children up to five years of age.

[43] https://www.nhp.gov.in/pulse-polio-programme_pg#:~:text=About%20172%20million%20children%20are,country%20(25th%20May%202012)
[44] https://main.mohfw.gov.in/sites/default/files/18604854648148966448 1.pdf

Implementation Status in Mumbai:

Table 31: Number of Polio Immunisations in Mumbai from 2018-19 to 2020-21[45]

Polio Immunisations	2018-19	2019-20	% change from 2018-19 to 2019-20	2020-21	% change from 2019-20 to 2020-21
Number of Children Administered Oral Polio vaccines (OPV 0)	1,59,737	1,62,510	2%	1,29,729	-20%
Number of Children Administered Oral Polio vaccines (OPV 1)	1,67,847	1,74,522	4%	1,59,934	-8%
Number of Children Administered Oral Polio Vaccine (OPV 2)	1,62,840	1,72,820	6%	1,59,937	-7%
Number of Children Administered Oral Polio Vaccine (OPV 3)	1,67,836	1,77,978	6%	1,69,487	-5%
Number of Children Administered Oral Polio Vaccine (OPV Booster)	1,64,264	1,77,450	8%	1,69,609	-4%
Number of Children Administered Inactivated Polio Vaccine 1 (IPV 1)	1,36,688	1,58,858	16%	1,57,106	-1%
Number of Children Administered Inactivated Polio Vaccine 2 (IPV 2)	1,29,496	1,62,119	25%	1,66,290	3%

Table 32: Deaths due to Polio in Mumbai from 2017 to 2019

Cause of Death	Year	0-4 Years	5-19 Years	20-39 Years	40-59 Years	60 Years and Above	Total
Acute Poliomyelites (A80)	**2017**	0	0	1	1	1	3
	2018	0	1	5	1	1	8
	2019	0	0	0	0	0	0

Inference:

- For full immunisation, at least 3 OPV and 2 IPV doses are required. Average number of children with OPV and IPV dosage decreased from 1,69,465 in 2019-20 to 1,58,870 in 2020-21.
- 8 deaths due to polio were reported in Mumbai in 2018, while in 2019, 0 deaths were reported.
- Thus, as WHO removed India from the list of countries with active endemic wild poliovirus transmission in 2011, efforts should continue to improve our immunisation rates and coverage every year.

[45] There are two vaccines for polio: The Oral Polio Vaccine (OPV) and the Inactivated Polio Vaccine (IPV). OPV is taken orally as drops and can be easily administered. It does not require a trained health worker. OPV is still the main preventive measure against polio. IPV is given through an injection by a trained health worker. In countries still using OPV, IPV does not replace the OPV vaccine, but is used with OPV to strengthen a child's immune system and protect them from polio.
In India, For the purpose of monitoring and evaluating the programme, a child below 1 year of age who has received one dose of BCG, Measles/MR along with 3 doses of OPV, Pentavalent Vaccine and two doses of IPV is said to be fully immunized.
https://nhm.gov.in/New_Updates_2018/NHM_Components/Immunization/Guildelines_for_immunization/FAQ_on_Immunization_for_Health_Workers-English.pdf

1.4.2 Mission Indradhanush and Intensified Mission Indradhanush

Year:

2014

Background:

Mission Indradhanush[46] an intensification strategy for immunisation (Refer to Annexure 9 for details of India's immunisation policies), aimed at providing all the vaccines under the Universal Immunisation Programme and ensuring full immunisation for children up to two years of age and pregnant women. To further intensify the immunisation programme and accelerate full immunisation coverage to over 90% by 2018, the Intensified Mission Indradhanush (IMI) was launched in 2017. IMI acts as a supplemental aggressive action plan to cover all left-outs and dropouts in select districts and urban cities with low routine immunisation coverage in a specific time-frame[47]. IMI 2.0 came into place in 2019 and was scheduled to carry out 4 rounds of immunization till March 2020. Under the Universal Immunization Programme, as per the guidelines of GOI, Public Health Department MCGM offers protection against 11 Vaccine-Preventable Diseases, Polio, Hepatitis B, TB, Diphtheria, Pertussis, Tetanus, H- Influenza B, Measles, Rubella, Mumps, and Rotavirus induced diarrhoea[48].

Objectives:

1. Mission Indradhanush (MI) was launched to improve immunisation coverage by reaching out to partially immunised and unimmunised children and pregnant women.
2. To increase full immunization coverage to 90% and sustain the coverage through immunization system strengthening. The IMI camps will be conducted in identified high-risk areas of Mumbai as per the guidelines of GOI which include Underserved, Un-served areas, Pockets with Vaccine Refusal communities, areas with an outbreak of Vaccine-Preventable diseases, and High-risk areas identified during pulse Polio Rounds such as Construction Sites, Migratory areas.

Target:

To increase full immunization coverage to 90% and sustain it through Rapid Interventions (RI)

Beneficiaries:

Children below 5 years of age, pregnant women

Implementation Status in Mumbai:

According to the data provided by the official IMI Website, 96% of all children in Mumbai targeted for immunisation under IMI 2.0 have been vaccinated.[49] However, this number is much lower than the annual vaccinations reported under the HMIS for various diseases. (Refer Annexure 9)

[46] https://www.nhp.gov.in/mission-indradhanush1_pg

[47] https://nhm.gov.in/New_Updates_2018/NHM_Components/Immunization/Guildelines_for_immunization/Mission_Indradhanush_Guidelines.pdf

[48] https://portal.mcgm.gov.in/irj/go/km/docs/documents/MCGM%20Department%20List/Public%20Health%20Department/Docs/Expanded%20Program%20of%20Immunization/INTENSIFIED%20MISSION%20INDRADHANUH%202.0%20English.pdf

[49] https://imi2.nhp.gov.in/report/coverage?State_ID=16

Table 33: Deaths from Diseases of Vaccines covered under Mission Indradhanush for Age 0 to 9 from 2017 to 2019

Causes Of Death	Years	Upto 1 year	1 -4 years	5 - 9 years
Acute Poliomyelites (A80)	2017	0	0	0
	2018	0	0	0
	2019	0	0	0
Acute Hepatitis B (B16)	2017	0	0	0
	2018	0	0	0
	2019	0	0	0
Tuberculosis (A15-A19)	2017	18	39	25
	2018	14	25	36
	2019	10	27	12
Diphtheria (A36)	2017	0	1	6
	2018	1	1	3
	2019	1	1	11
Whooping Cough (A37) Pertussis	2017	2	0	0
	2018	5	0	0
	2019	1	0	0
Tetanus (A33, A34, A35)	2017	0	3	4
	2018	1	3	4
	2019	0	4	6
Influenza (J10- J11)	2017	2	11	2
	2018	0	1	0
	2019	1	3	1
Measles (B05)	2017	1	4	1
	2018	2	4	2
	2019	0	0	0
All Other Types Of Viral Diseases (A70-A74, A81.A87-A89,A95,B00-B02,B04,B06-B09.B25-B34)*	2017	5	4	4
	2018	2	3	3
	2019	9	5	5
Diarrhoea and Gastroenteritis Of Presumed Infectious Origin (A09)	2017	40	14	3
	2018	45	17	5
	2019	40	8	2

Note (*) - Includes Rubella and Mumps

Inference:

- There has been an increase in deaths due to Diphtheria (160%) from 5 deaths in 2018 to 13 deaths in 2019 as well as death due to all Other Types of Viral Diseases (138%) has increased from 8 deaths in 2018 to 19 death in 2019.
- In all the other vaccines covered under MI and IMI scheme, the cause of death data shows less than 20 deaths except for diarrhoea and tuberculosis (50 and 49 deaths respectively in 2019).
- Thus, there needs to be specific focus on TB and Diarrhoea, while continuing vaccination for others to keep the mortality low as can be seen from this table.

1.4.3 Janani Suraksha Yojana

Year:

2005

Background:

Janani Suraksha Yojana (JSY) is a "safe motherhood" intervention under the NHM. The objective of its implementation is to reduce maternal and neonatal mortality by promoting institutional deliveries among poor pregnant women[50]. It is a centrally sponsored scheme, which integrates the two components of cash assistance with delivery and post-delivery care. The scheme focuses on poor pregnant women in states that have less than 25% institutional delivery rates (named as the Low Performing States or LPS). In addition to the distribution of monetary assistance, the scheme aims at providing quality maternity services to pregnant women by preparing a micro-birth plan for efficient coordination of all childbirth-related activities[51]. The scheme is implemented by the state government through facilities provided under the scheme in Medical Colleges, Urban health posts & urban family welfare centers under Municipal Councils / Corporations, Corporation Hospitals, and all government-granted hospitals.[52]

Objectives:

1. To collect all necessary documents from the beneficiary for eligibility under JSY.
2. To issue prescribed JSY Cards to beneficiaries by compiling all required information.
3. To provide for and /or aid the beneficiary in receiving at least four Antenatal Care (ANC) check-ups to give health services including Injectable Tetanus (TT) and Iron Folic Acid (IFA) tablets.
4. To motivate the beneficiary towards an institutional delivery, either at a government health institution or at an accredited private health institution
5. To facilitate the opening of bank accounts for eligible JSY beneficiaries to receive the aforementioned JSY cash benefit.

Target:

To reduce the Maternal and Neonatal Mortality rate by promoting institutional deliveries among beneficiaries from BPL, SC, and ST families in rural and urban areas.

Beneficiaries:

All SC/ST women, all pregnant women delivering in government facilities and accredited private facilities in the Low Performing States, and BPL Pregnant women in the High Performing States (HPS). Since Maharashtra is under the HPS, only pregnant women under BPL are eligible for the scheme.

[50] https://nhm.gov.in/WriteReadData/l892s/97827133331523438951.pdf

[51] https://www.ilo.org/dyn/travail/docs/683/JananiSurakshaYojanaGuidelines/MinistryofHealthandFamilyWelfare.pdf

[52] https://arogya.maharashtra.gov.in/Site/Form/DiseaseContent.aspx?CategoryDetailsID=xO3DHbQ/Sx0=

Implementation Status in Mumbai:

Table 34: Births and Deaths Rate in Mumbai from 2016 to 2020

Indicators	2016	2017	2018	2019	2020
M.Y.E.P Population[53]	1,26,89,644	1,27,36,036	1,27,82,429	1,28,28,821	1,28,75,213
Live Births	1,52,952	1,55,386	1,51,187	1,48,898	1,20,188
Birth Rate (Births per 1000 population)	12.05	12.20	11.83	11.61	9.33
Still Births	1,818	1,684	1,396	904	1,131
Total Deaths	86,642	89,037	88,852	91,223	1,11,942
Death Rate (Deaths per 1000 population)	6.83	6.99	6.95	7.11	8.69

Table 35: Mother and Child Death Indicators in Mumbai from 2016 to 2020[54]

Indicators	2016	2017	2018	2019	2020
Neo-Natal Deaths (less than 28 days)	2,498	2,563	2,239	2,186	1,858
Neo-Natal Mortality Rate (deaths per 1000 live births)	16.33	16.49	14.81	14.68	15.46
Infant Deaths (Less than 1 year)	3,998	4,079	3,723	3,430	2,649
Infant Mortality Rate (deaths per 1000 live births)	26.14	26.25	24.63	23.04	22.04
Under 5 Mortality/Child Deaths (less than 5 years)	4,932	5,020	4,529	4,221	3,123
Under 5 Morality rate (deaths per 1000 live births)	32.25	32.31	29.96	28.35	25.98
Maternal Deaths	305	236	218	257	197
Maternal Mortality Rate (per 1,00,000 live births)	199	152	144	173	164

Note: Data needed to calculate the mortality rate was not available in HMIS, hence the above data is taken from MCGM MIS[55]**.**

Inference:

- In the year 2020, the numbers of still births reported were 1,131, which is a 25% increase from 904 still births reported in 2019.
- As per WHO[56], India's MMR in 2017 was 145, while the MMR for Mumbai in the same year was 152.
- Similarly, Sustainable Development Goal's (SDG) National MMR target for 2030 is 70. Even though there is a decreasing trend in MMR in the last 4 years, the picture is quite grim at 164 in 2020.
- Similarly, the Under- 5 mortality rate (U5MR) National target under SDGs is 11 as adopted and the current U5MR is 26 in Mumbai.

[53] MYEP Population – Mid Year Election List of Population

[54] Neo-natal mortality rate, Infant Mortality Rate, Under 5 Mortality Rate and Maternal Mortality Rate are calculated based on number of deaths of a calendar year by number of live births in that year.

[55] https://www.mcgm.gov.in/irj/portal/anonymous/qlvitalstatsreport

[56] https://www.who.int/gho/maternal_health/countries/ind.pdf

1.4.4 Janani Shishu Suraksha Karyakram

Year:

2011

Background:

Reducing maternal and infant mortality is a key role of Reproductive and Child Health (RCH) under the NHM. To enable this, the Government of India launched the Janani Shishu Suraksha Karyakram (JSSK) for the benefit of pregnant women who access Government health facilities for delivery. The scheme entitles all pregnant women delivering in public health institutions to a no-expense delivery (for both cesarean and natural deliveries), free drugs and consumables, diagnostics, blood tests, travel to and from the healthcare facility, and a balanced diet for the duration of their stay. Similarly, it entitles all sick new-borns to access public health institutions for healthcare till 30 days after birth.[57] It is implemented by the state government by providing services under the scheme through primary health centers, sub-district hospitals, district hospitals, government medical college hospitals, etc.[58]

Objectives:

The objective of the JSSK Programme is that every pregnant woman and sick infant upto the age of 1 year gets timely access to the health care system for the required antenatal, intra-natal, postnatal care, immunisation, and diagnostics free of cost.

Target:

To cover 1 crore pregnant women and sick new-borns accessing the public health system every year.

Beneficiaries:

All pregnant women delivering in Government health institutions in both rural and urban areas.

[57] https://www.nhm.gov.in/images/pdf/nrhm-updates/presentations/11th_sep/jssk_dc_mh.pdf

[58] https://arogya.maharashtra.gov.in/Site/Form/DiseaseContent.aspx?CategoryDetailsID=E0/L/wULlww=

Implementation Status in Mumbai:

Table 36: Antenatal Care and Deliveries in Mumbai from 2018-19 to 2020-21

Indicators		2018-19	2019-20	% change from 2018-19 to 2019-20	2020-21	% change from 2019-20 to 2020-21
Antenatal Care						
Total number of pregnant women (PW) registered for ANC		2,20,969	1,91,247	-13%	1,76,750	-8%
Out of the total ANC registered, number registered within 1st trimester (within 12 weeks)		97,363	1,06,164	9%	1,10,623	4%
Number of PW given TT1		1,20,271	1,28,695	7%	1,03,220	-20%
Number of PW given TT2		1,10,566	1,03,684	-6%	90,485	-13%
Number of PW given TT Booster		58,194	62,358	7%	65,324	5%
Number of PW given 180 Iron Folic Acid (IFA) tablets		1,87,817	1,60,879	-14%	1,51,367	-6%
Number of PW given 360 Calcium tablets		1,78,129	1,57,736	-11%	1,45,438	-8%
Number of PW given one Albendazole tablet after 1st trimester		1,16,400	1,03,263	-11%	1,18,564	15%
Number of PW received 4 or more ANC check ups		1,59,671	1,59,686	0.01%	1,47,012	-8%
Deliveries						
Number of Institutional Deliveries conducted (Including C-Sections)	**Public**	68,739	68,936	0.29%	51,325	-25.55%
	Private	78,718	78,886	0.21%	76,944	-2.46%
Number of Home Deliveries attended by Skill Birth Attendant (SBA) Doctor/Nurse /ANM)	**Public**	2	4	100%	8	100%
	Private	0	0	-	0	-
Number of Home Deliveries attended by Non SBA (Trained Birth Attendant (TBA) /Relatives/etc.)	**Public**	29	37	27.59%	40	8.11%
	Private	0	0	-	0	-
Total	**Public**	68,770	68,977	0.30%	51,373	-25.52%
	Private	78,718	78,886	0.21%	76,944	-2.46%

Inference:

- The absolute number of institutional deliveries conducted in government facilities has reduced by 26% from 2019-20 to 2020-21.
- With regards to antenatal care, the number of Pregnant Women (PW) who registered for antenatal care decreased by 20% from 2018-19 to 2020-21.
- The number of PW given their TT injections showed a marginal increase from 2018-19 to 2019-20.
- The number of PW given IFA tablets decreased by 14% from 2018-19 to 2019-20 and further decreased by 6% from 2019-20 to 2020-21.
- Antenatal care and the health of the mother during pregnancy is a vital element of ensuring the health of the new-born but interventions such as IFA tablets and TT injections have shown a decrease in the most recent years, the ideal scenario would be a sustained annual increase in every aspect of antenatal care.

Table 37: Services provided to Infants under JSSK in Mumbai from 2018-19 to 2020-21

Services for Infants	2018-19	2019-20	% change from 2018-19 to 2019-20	2020-21	% change from 2019-20 to 2020-21
Free Medicines	62,392	58,955	-6%	1,63,103	177%
Free Diagnostics	21,377	36,839	72%	81,665	122%
Free Home to facility transport	0	1	-	0	-100%
Inter facility transfers when needed	259	378	46%	1,311	247%
Free Drop Back home	0	12	-	4	-67%

Table 38: Services provided to Pregnant women under JSSK in Mumbai from 2018-19 to 2020-21

Services for Pregnant women (PW)	2018-19	2019-20	% change from 2018-19 to 2019-20	2020-21	% change from 2019-20 to 2020-21
Free Medicines	1,40,863	1,82,115	29%	1,69,903	-7%
Free Diet	1,40,863	1,30,682	-7%	51,225	-61%
Free Diagnostics	1,40,863	1,82,115	29%	1,69,894	-7%
Free Home to facility transport	0	0	-	0	-
Inter facility transfers when needed	1,290	1,426	11%	6,103	328%
Free Drop Back home	0	0	-	9	-

Inference:

- Data showed a decrease of 7% from 2019-20 to 2020-21 in the number of pregnant women provided free medicines and diagnostics under the scheme. Measures must be taken to ensure all pregnant women receive adequate and quality healthcare and nutrition.
- In contrast, the number of infants who were provided free medicine and diagnostics has shown a massive increase of 177% and 122% respectively from 2019-20 to 2020-21. This is a good sign and efforts must be made to ensure that it is maintained and annually increased, so that infants are provided with the medicines and nutrition for good development.
- In 2020-21, inter-facility transfers for both mothers and infants has also increased by a larger proportion under this scheme.

1.4.5 Pradhan Mantri Matru Vandana Yojana

Year:

2017

Background:

The Pradhan Mantri Matru Vandana Yojana (PMMVY) Maternity Benefit Programme was implemented in all the districts of the country following the provisions of the National Food Security Act, 2013[59] to improve the overall health and wellbeing of women through cash transfers during and after their pregnancy.

Objectives:

1. To provide partial compensation for the wage loss in terms of cash incentives to enable women to take adequate rest before and after delivery of the first living child.
2. To promote improved health-seeking behavior amongst the Pregnant Women and Lactating Mothers (PW and LM) through the compensatory cash benefit.

Target:

To provide a cash incentive to pregnant women for health.

Beneficiaries:

1. All Pregnant Women and Lactating Mothers, excluding PW and LM who are in regular employment with the Central Government or the State Governments or PSUs or those who receive similar benefits under any law for the time being in force
2. All eligible Pregnant Women and Lactating Mothers who have their pregnancy on or after 01.01.2017 for the first child in the family.

Implementation Status in Mumbai:

No details of implementation were available in the public domain.

[59] https://wcd.nic.in/sites/default/files/PMMVY%20Scheme%20Implemetation%20Guidelines%20. 0.pdf

1.4.6 Rashtriya Bal Swasthya Karyakram (RBSK)

Year:
2013

Background:
Rashtriya Bal Swasthya Karyakram (RBSK) envisages Child Health Screening and Early Intervention Services for early identification of medical conditions and link to care, support, and treatment. Children diagnosed with any of the 30 identified illnesses (Refer Annexure 8) receive follow up including surgeries at the tertiary level, free of cost under the NHM. The new borns are screened for birth defects in health facilities by service providers and during the home visits by ASHAs (0-6 weeks), whereas dedicated Mobile Health Teams carry out screening of all children in the preschool age enrolled at Anganwadi centers at least twice a year (6 weeks to 6 years) besides screening of all children studying in Government and Government aided schools (6 - 18 years)[60].

Objectives:
To improve the overall quality of life of children through early detection and intervention for children from birth to 18 years to cover defects at birth, childhood diseases, deficiencies, development delays, and disability.

Target:
To cover 30 identified health conditions for early detection, free treatment, and management through dedicated mobile health teams placed in every block in the country.

Beneficiaries:
All children of 0-6 years of age group in rural areas and urban slums, in addition to older children upto 18 years of age enrolled in classes 1st to 12th in Government and Government aided schools.

[60] http://cghealth.nic.in/nhmcg/Informations/RMNCH/7Rastriya_Bal_Swaasthya_karyakaram.pdf

Implementation Status in Mumbai:

Table 39: Screening of Children under RBSK from 2018-19 to 2020-21

Indicators	2018-19	2019-20	2020-21
Number of new-born screened for defects at birth (as per RBSK)	55,595	57,963	NA
Number of children screened by RBSK mobile health teams at Anganwadi	2,68,755	2,53,928	NA
Number of children screened by RBSK mobile health teams at Government and Government aided schools	2,27,778	1,71,119	NA
Number of children with disease/deficiency/developmental delay	13,408	12,152	NA
Number of Children provided Medical Intervention	6,542	4,952	NA
Number of Children provided Surgical Intervention	35	66	NA

NA – Not available

Inference:

- In 2019-20, under the RBSK scheme, 2,53,928 children were screened at Anganwadis and 1,71,119 children were screened at Government and Government aided schools of which 12,152 needed medical attention.
- However, for the year 2020-21, the HMIS data showed that 0 children were screened, however, RBSK mobile health teams should have taken measures to carry out screening for children in Anganwadis and in the vicinity of the school.

Table 40: Total deaths from Age 0 to 19 in Mumbai from 2017 to 2019

Year	Upto 1 year	1-4 years	5 - 9 years	10 -14 years	15 -19 years	Total 0-19 years
2017	3,838	969	510	658	1,614	7,589
2018	3,564	806	521	636	1,549	7,076
2019	3,262	799	464	694	1,403	6,622

Table 41: Major Causes of deaths from Age 0 to 19 in 2018 & 2019

Causes of Death	Year	Upto 1 year	1-4 years	5 - 9 years	10 -14 years	15 - 19 years	Total 0-19 years
Hypoxia, Birth Asphyxia and Other Respiratory Conditions (P20-P28)	2018	923	0	0	0	0	923
	2019	964	0	0	0	0	964
All Other Conditions Originating in the Perinatal Period (P00-P04, P29-P54, P56-P57, P60-P96)	2018	698	0	0	0	0	698
	2019	667	2	0	0	0	669
Congenital Malformations of the Circulatory System (Q20-Q28, Q31)	2018	421	77	21	20	15	554
	2019	331	59	15	14	10	429
Cleft Lip and Cleft Palate (Q35-Q37)	2018	1	0	0	0	0	1
	2019	3	1	0	0	0	4
Event of undetermined Intent (Y10-Y34)	2018	0	0	1	0	0	1
	2019	0	0	0	0	1	1
Tuberculosis(A15-A19)	2018	14	25	36	74	236	385
	2019	10	27	12	79	249	377
Pneumonia (J12-J18)	2018	273	84	26	28	26	437
	2019	151	75	26	19	33	304
All Other Congenital Malformations, Deformations and Chromosomal Abnormalities Not Elsewhere (Q18, Q32-Q34, Q38-Q99)	2018	248	25	7	5	3	288
	2019	228	24	9	9	1	271
Other injuries of Specified, Unspecified and Multiple Body Regions (SOO-SOI, S05, S09-S11, S1S-S16, S19- S21,S25,S29,S31,S35, S39-S41, S45-S46,S49-S51, S55-SS6, S59-S61, S65-S66, S69 S71, S75-S76, S79-S81, S8S-S86, S89-S91, S95 S96, S99, T00, T01, T06-T07, T09, T11 and T13-T14)	2018	18	26	20	33	164	261
	2019	8	30	11	30	145	224
All other diseases of the nervous system (G10-G25, G31, G35-G37, G43-G98)	2018	56	37	32	34	42	201
	2019	45	41	32	33	59	210
Septicaemia(A40-A41)	2018	106	35	10	7	13	171
	2019	132	22	10	10	17	191
Dengue Fever (A90)	2018	2	11	18	15	17	63
	2019	19	15	12	11	21	78
Diarrhoea (A09)	2018	45	17	5	1	4	72
	2019	40	8	2	0	3	53
Other Viral Hepatitis (B15, B17-B19)	2018	0	2	3	5	5	15
	2019	0	2	1	4	2	9
Human Immuno-deficiency Virus (HIV) (B20-B24)	2018	2	0	2	12	18	34
	2019	0	1	5	10	14	30
Other protein-energy malnutrition (E42-E46)	2018	11	14	3	1	2	31
	2019	5	11	5	3	0	24

Causes of Death	Year	Upto 1 year	1-4 years	5 - 9 years	10 -14 years	15 - 19 years	Total 0-19 years
Diabetes mellitus (E10-E14)	2018	4	4	1	2	4	15
	2019	1	2	2	3	6	14
Malaria (B50-B54)	2018	0	5	0	0	3	8
	2019	0	1	0	0	3	4
Hypertension (I10-I15)	2018	0	1	1	0	3	5
	2019	0	2	3	2	5	12
Typhoid (A01)	2018	0	0	1	1	1	3
	2019	0	0	0	1	0	1
Acute Myocardial infarction (I21-I22)	2018	0	1	0	1	3	5
	2019	0	0	1	1	6	8
Nutritional marasmus (E41)	2018	0	0	0	0	0	0
	2019	0	0	0	0	1	1
All other nutritional deficiencies (E50-E64)	2018	0	1	0	0	0	1
	2019	0	2	0	0	0	2
Acute Poliomyelitis (A80)	2018	0	0	0	1	0	1
	2019	0	0	0	0	0	0
Kwashiorkor (E40)	2018	0	0	0	0	0	0
	2019	0	0	0	0	0	0
Cholera(A00)	2018	0	0	0	0	0	0
	2019	0	0	1	0	0	1
Acute Hepatitis B (B16)	2018	0	0	0	0	1	1
	2019	0	0	0	0	0	0
Acute rheumatic fever and chronic rheumatic heart diseases (I00-I09)	2018	1	0	1	5	10	17
	2019	0	1	1	10	8	20
Convulsions not Elsewhere Classified (R56)	2018	1	0	0	0	0	1
	2019	0	0	1	1	0	2
Other Anaemias (D50-D55, D57-D64)	2018	19	15	12	11	23	80
	2019	7	15	11	13	12	58
Other Causes	2018	721	426	321	380	956	2,804
	2019	651	458	304	441	807	2,661
Total Deaths	2018	**3,564**	**806**	**521**	**636**	**1,549**	**7,076**
	2019	**3,262**	**799**	**464**	**694**	**1,403**	**6,622**

Inference:

- Of the major causes of death among children in the age of 0 to 19, congenital diseases, malnutrition, anemia and rheumatic diseases (802 deaths in total) are included in RBSK.
- However, deaths caused due to other diseases such as tuberculosis, pneumonia, septicemia and nervous disorders (1,082 deaths) have also affected children but are not being included.
- Similarly, Hypoxia, Asphyxia and other Conditions Originating in the Perinatal Period that mainly affect infants (1,633 deaths) have not been included.
- Maximum deaths have been seen to occur in new-born children and teenagers between the age of 15-19 years. Targeted measures must be undertaken to ensure deaths under these causes are controlled.

1.4.7 School Health Scheme

Year:

1938

Background:

The M.O (Schools) Department has been functioning since 1938. The department of Medical Officer (Schools) conducts a Primary medical screening of students of MCGM Primary, Secondary and Special schools. The M.O (Schools) Department comprises:

i. The medical unit (Medical Officers and Health Visitors) working in schools

ii. The school Clinic unit (School Clinic Organizer and Assistant School Clinic Organiser) working at 7 hospitals (5 Teaching and 2 Peripheral). The reports created by these units are submitted to the Education and Health departments[61].

Objectives:

1. Medical Inspection (Primary Screening) of students. Every year each medical unit is allotted a specific no. of schools in one or more wards to be completed successively one after the other in an academic year.
2. Students with defects/deficiency/diseases are referred to municipal dispensary/hospital /school clinics in hospitals
3. To ensure that follow-up treatments of referred students are conducted (especially those with major problems who require treatment for a longer duration).
4. To promote and improve the health Education of Parents, Students, Teachers and staff through Meetings, IEC Materials, and Virtual classrooms. Topics included in this are Monsoon illnesses, Nutrition, Anemia, etc.

Target:

No specific target mentioned

Beneficiaries:

Primary and secondary students in public schools

[61] https://portal.mcgm.gov.in/irj/go/km/docs/documents/MCGM%20Department%20List/Public%20Health%20Department/Docs/School%20Health%20Department/Program%20Outline%20English.pdf

Implementation Status in Mumbai:

Table 42: Number of diseases/ailments found in Health Check-ups in Municipal Schools from 2017-18 to 2019-20

Diseases/Ailments	2018-19	2019-20	% change from 2018-19 to 2019-20	2020-21
Dental Caries	96,658	68,668	-29%	0
Dental Others	18,710	13,334	-29%	0
Scabies	1,063	797	-25%	0
Leprosy (New)	4	4	0%	0
Skin Other	19,612	12,851	-34%	0
Lymphadenopathy	4,466	2,452	-45%	0
Speech	1,728	1,182	-32%	0
Eye Conditions	5,148	4,559	-11%	0
Eye (Defective Vision)/ Refractory error	13,590	13,192	-3%	0
Otorrhoea	1,590	1,101	-31%	0
Ear Other defects	23,478	14,038	-40%	0
Nose Defects	15,279	10,671	-30%	0
Thyroid	49	21	-57%	0
Throat Other Defects	4,174	3,181	-24%	0
Splenomegaly	3	1	-67%	0
Vitamin A Deficiency	2,212	760	-66%	0
Night blindness	7	2	-71%	0
Vitamin B,C,D Deficiency	1,652	1,371	-17%	0
Rheumatic Heart Disease (RHD) (New)	3	2	-33%	0
Heart and Circulation	284	239	-16%	0
TB (New)	179	102	-43%	0
Lung Other Defects	2,219	872	-61%	0
Orthopaedic Defects	1,317	979	-26%	0
Nervous Defects	NA	345	NA	0
Polio Deformity	0	NA	NA	0
Mental Defects	1,646	1,023	-38%	0
Pallor **Anemia**	3,106	5,566	79%	0
Underweight	7,383	7,512	2%	0
Overweight	1,421	191	-87%	0
Worms	894	1375	54%	0
Other Defects	18,198	31,498	73%	0
Total Defects	2,46,073	1,97,889	-20%	0
Total No. of students Examined	2,26,066	1,74,464	-23%	0

Inference:

- For 2020-21, the RTI reply received by the department (Annexure 11), that mentions “zero” children were screened during the pandemic.
- Thus, children suffering from diseases as seen in 2019-20 have been undiagnosed due to the restrictions placed in schools within Mumbai.

1.4.8 Urban Reproductive and Child Health Programme

Year:

1997

Background:

The Reproductive Health and Child Health Programme seek to cover the reproductive health of individuals at every stage. This includes promoting women's health and safe motherhood (including the safe management of unwanted pregnancy and abortion), women's development, child health (including child survival and child development), adolescent health including sexuality development, adolescence education and vocational education, effective family planning (ensuring information regarding informed choice, counselling, gender equality and greater male participation in the child-rearing process), prevention, detection and management of Reproductive Tract Infections, Sexually Transmitted Infections, HIV/ AIDS and cancers of the reproductive system, prevention and management of infertility and other reproductive disorders, and the reproductive health care of elderly persons. The provision of health care under the RCH program is mainly focused on urban areas and for the upliftment of vulnerable individuals living in slums.

Objectives:

1. To improve the health status of the urban poor community through the provision of quality integrated primary health care services.
2. To strengthen the existing urban health infrastructure through the upgradation of existing facilities.
3. To support the development of a referral system for institutional deliveries, emergency obstetric care and terminal method of family planning.
4. To promote the involvement of NGOs / Private sector facilities in the provision of primary health care services and as part of the referral system.
5. Integration of the existing health infrastructure with the proposed urban health programme.

Target:

No specific target has been mentioned in the programme document

Beneficiaries:

Pregnant women, infants, adolescents, families, the elderly; vulnerable individuals living in slums

Implementation Status in Mumbai:

Table 43: Reproductive Tract /Sexually Transmitted Infections (RTI/STI) Cases in Mumbai from 2018-19 to 2020-21

RTI/STI Cases		2018-19	2019-20	% change from 2018-19 to 2019-20	2020-21	% change from 2019-20 to 2020-21
Male	Identified	15,703	11,406	-27%	9,695	-15%
	Treatment Initiated	13,257	11,327	-15%	9,309	-18%
Female	Identified	29,280	27,566	-6%	23,938	-13%
	Treatment Initiated	25,318	27,502	9%	23,888	-13%
Total	Identified	44,983	38,972	-13%	33,633	-14%
	Treatment Initiated	38,575	38,829	1%	33,197	-15%

Inference:

- 69% of the total RTI/STI cases on average (from 2018-19 to 2020-21) were reported in females.
- This shows that the burden of sexually transmitted infections is concentrated towards females and has a direct relation to the misuse or failure to use effective contraceptives.
- The number of STI cases has decreased in females from 29,280 in 2018-19 to 23,938 in 2020-21 and has decreased for males from 15,703 to 9,695 in the same period.
- On average, treatment for STI/RTI was initiated for 93% males out of the identified cases and for 95% females out of the identified cases from 2018-19 to 2020-21.

Table 44: Family planning methods (Female) from 2018-19 to 2020-21[62]

Family Planning Female	2018-19	2019-20	% change from 2018-19 to 2019-20	2020-21	% change from 2019-20 to 2020-21
Number of Interval IUCD Insertions (excluding PPIUCD and PAIUCD)	35,411	29,699	-16%	30,875	4%
Number of Postpartum (within 48 hours of delivery) IUCD insertions	8,438	8,510	1%	10,162	19%
Number of Post Abortion (within 12 days of spontaneous or surgical abortion) IUCD insertions	1,195	1,395	17%	970	-30%
Number of IUCD Removals	4,021	4,399	9%	1,869	-58%
Number of complications following IUCD Insertion	125	196	57%	161	-18%
Injectable Contraceptive-Antara Program- First Dose	2,993	1,552	-48%	841	-46%
Injectable Contraceptive-Antara Program- Second Dose	1,192	600	-50%	253	-58%
Injectable Contraceptive-Antara Program- Third Dose	783	315	-60%	86	-73%
Injectable Contraceptive-Antara Program- Fourth or more than four	765	496	-35%	222	-55%
Number of Combined Oral Pill cycles distributed	3,68,930	3,74,090	1%	3,57,197	-5%
Number of Emergency Contraceptive Pills (ECP) given	522	1,928	269%	1,162	-40%
Number of Centchroman (weekly) pill strips distributed	1,423	5,746	304%	8,292	44%
Number of Tubectomies	19,263	17,659	-8%	11,805	-33%
Failures following female sterilization	11	4	-64%	3	-25%
Deaths following female sterilization	0	0	-	0	-

[62] Refer Annexure 12 for details of each of the contraceptive methods

Table 45: Family planning methods (Male) from 2018-19 to 2020-21

Family planning: Male	2018-19	2019-20	% change from 2018-19 to 2019-20	2020-21	% change from 2019-20 to 2020-21
Number of Condom pieces distributed	53,72,124	39,19,138	-27%	44,62,141	14%
Number of Non Scalpel Vasectomy (NSV) / Conventional Vasectomy conducted	185	116	-37%	49	-58%
Failures following male sterilization	0	0	-	0	-
Deaths following male sterilization	0	0	-	0	-

Inference:

- With regards to family planning interventions for women, IUCD insertions (excluding PPIUCD and PAIUCD) show an increase of 4% from 2019-20 to 2020-21 and Antara dosages showed an average decrease of 58% and a decrease of 40% in the number of emergency contraceptive pills (ECP) distributed for the same period.
- Male contraceptive interventions also showed a decrease of 58% from 2019-20 to 2020-21. The number of condom pieces distributed increased by 14% from 2019-20 to 2020-21.
- The large decrease in ECP and other contraceptive measures distributed shows that a significant proportion of the female population did not have access to contraceptive measures during the pandemic.

Table 46: Percentage of female contraceptive interventions to male contraceptive interventions from 2018-19 to 2020-21

Total Contraceptives by Gender	2018-19	2019-20	2020-21
Total contraceptives	70,225	60,342	55,263
Female contraceptives total	70,040	60,226	55,214
Percentage of female contraceptive interventions	99.74%	99.81%	99.91%
Male contraceptives total	185	116	49
Percentage of male contraceptive interventions	0.26%	0.19%	0.09%

Note: Total female contraceptives include the number of Tubectomies, IUCD insertions, Number of Injectable Contraceptive, while the total male contraceptives include the number of Non-Scalpel Vasectomies (NSV)/ Conventional Vasectomy conducted

Inference:

- Even with the huge decrease in female contraceptive interventions in 2020-21, they made up to an average of 99.82% of all family planning interventions from 2018-19 to 2020-21, whereas male contraceptive interventions only made up 0.18% of the total.
- Awareness in understanding contraceptive measures especially among males must be carried to reduce the burden of conducting contraceptive procedures on females.

Table 47: Medical Termination of Pregnancy (MTP) in Mumbai from 2018-19 to 2020-21

MTP	2018-19	2019-20	% change from 2018-19 to 2019-20	2020-21	% change from 2019-20 to 2020-21
MTP up to 12 weeks of pregnancy	22,585	18,623	-18%	15,269	-18%
MTP more than 12 weeks of pregnancy	1,356	1,643	21%	914	-44%
Post Abortion/ MTP Complications Identified	20	7	-65%	3	-57%
Post Abortion/ MTP Complications Treated	6	3	-50%	1	-67%
Number of women provided with post abortion/ MTP contraception	2,564	2,742	7%	1,263	-54%

Inference:

- Concerning institutional abortions and MTP; MTP's beyond 12 weeks of pregnancy has steadily been decreasing over the last three years. Moreover, complications related to abortions have also decreased.
- This shows that efforts are being made to provide safe interventions for unwanted pregnancies. However, treatments for post-abortion complications have also decreased. This is a shortcoming that needs to be addressed, as complications such as these can have long-term consequences for the woman.

1.5. Nutritional Schemes

Nutrition is recognised as one of the most important social determinants of health. Malnutrition, especially micronutrient deficiencies, restricts survival, growth and development. It contributes to morbidity and mortality in vulnerable populations, resulting in substantial diminution in productive capacity in adulthood and consequent reduction in overall well-being.

The table depicts the making and implementation of major programmes/schemes in Mumbai

Government	Central	State	City
Central			
State	• Integrated Child Development Services • National Iron Plus Initiative for Anemia Control		
City	Mid-Day Meal Scheme		

PROGRAMME MAKING PROGRAMME IMPLEMENTATION

SUSTAINABLE DEVELOPMENT GOALS

Target: *Reduce percentage of pregnant women aged 15 to 49 years who are anemic (11g/dl) to 23.57% by 2030*[1]

Status: *HMIS reports show that out of total pregnant women registered for ante-natal care, 47% reported anemic (less than 11g/dl) in 2020-21.*[2]

KEY FINDINGS[3]

- *The number of tests conducted for anemia has decreased by 46% from 2019-20 to 2020-21, however, the proportion of positive cases to the total cases remains almost constant (6.3% in 2019 and 6.4% in 2020).*
- *The number of pregnant women who tested positive for moderate anemia showed a decrease of 20% from 2019-20 to 2020-21. While the number of women who tested positive for severe anemia increased by 5% in the same period.*
- *ICDS coverage in 2020-21 (during the pandemic) had increased by 14% for infants (up to 71 months) from 2019-20 to 2020-21 and a similar increase of 11% was also noticed for pregnant women and lactating mothers with the Supplementary Nutrition Packages (SNP) Coverage.*

[1] SDG India Index, Niti Aayog [2] HMIS Data [3] HMIS Data and Monthly Progress Report of ICDS

1.5.1 National Iron Plus Initiative for Anemia Control

Year:

2013

Background:

Anemia is a serious public health challenge in India. The National Family Health Survey-3 (NFHS-3)[63] data suggests that anemia is widely prevalent among all age groups, and is particularly high among the most vulnerable – nearly 58 percent among pregnant women, 50 percent among non-lactating women, 56 percent among adolescent girls (15–19 years), 30 percent among adolescent boys and around 80 percent among children under 3 years of age and 70% below 5 years of age[64]. In young children, iron deficiency is due to increased iron requirement during periods of rapid growth. In addition, infant and toddler diets are often poor in bioavailable iron, particularly post-weaning. Children who suffer from anemia have delayed psychomotor development and impaired performance; in addition, they have a 5–10-point deficit in intelligence quotient. Iron deficiency can cause significant central nervous system (CNS) damage even in the absence of anemia. There seems to be a vulnerable period for these damages particularly between 9 and 18 months of age[65]. The National Iron+ Initiative was launched by the Adolescent Division of the Ministry of Health and Family Welfare (MoHFW), Government of India to target this challenge.

Objectives:

1. To bring to the attention of program managers of health and health-related activities the serious negative consequences of anemia for the health and physical, mental, and economic productivity of individuals and populations
2. To layout IFA supplementation protocols across the life cycle (preventive strategy)
3. To define a minimum standard treatment protocol for facility-based management of mild, moderate and severe anemia segregated by levels of care (curative strategy)
4. To broadly identify platforms of service delivery and indicate roles of service providers

Target:

One of the goals for the 12th Five Year Plan is to reduce anemia in girls and women by 50 percent.

(The National Iron+ Initiative will reach the following age groups for supplementation or preventive programming: Bi-weekly iron supplementation for preschool children 6 months to 5 years Weekly supplementation for children from 1st to 5th grade in Govt. and Govt. Aided schools Weekly supplementation for out of school children (5–10 years) at Anganwadi Centres Weekly supplementation for adolescents (10–19 years) Pregnant and lactating women Weekly supplementation for women in reproductive age[66]

Beneficiaries:

Children, adolescents, women of reproductive age, pregnant and lactating women (Dosages are different for all)

[63] http://rchiips.org/nfhs/NFHS-3%20Data/VOL-1/India_volume_I_corrected_17oct08.pdf
[64] https://www.nhp.gov.in/national-iron-plus-initiative-for-anemia-control_pg
[65] https://nhm.gov.in/images/pdf/programmes/wifs/guidelines/Guidelines_for_Control_of_Iron_Deficiency_Anaemia.pdf
[66] http://www.nrhmhp.gov.in/sites/default/files/files/Iron%20plus%20initiative%20for%206%20months%20-5%20years.pdf

Implementation Status in Mumbai:

Table 48: Iron and Folic Acid (IFA) tablets provided under Weekly Iron and Folic Acid Supplementation (WIFS) Programme from 2018-19 to 2020-21

WIFS	2018-19	2019-20	% change from 2018-19 to 2019-20	2020-21	% change from 2019-20 to 2020-21
Number of children covered under WIFS JUNIOR (6 - 10 years) provided 4-5 IFA tablets in schools	5,87,416	10,76,810	83%	3,34,646	-69%
Number of out of school children (6-10 years) given 4-5 IFA tablets at Anganwadi Centres	4,32,002	10,93,056	153%	2,75,070	-75%

Table 49: Anemia prevalence rate and interventions from 2018-19 to 2020-21

Anemia	2018-19	2019-20	% change from 2018-19 to 2019-20	2020-21	% change from 2019-20 to 2020-21
Number of Haemoglobin (Hb) tests conducted	17,33,436	16,79,665	-3%	9,07,087	-46%
Out of the total number of Hb tests done, Number having Hb < 7 mg	81,890	1,05,422	29%	58,402	-45%
Number of children (6-59 months) provided 8-10 doses (1ml) of IFA syrup (Bi weekly)	40,118	1,80,362	350%	1,39,309	-23%
Number of mothers provided full course of 180 IFA tablets after delivery	1,02,812	1,03,464	1%	97,642	-6%
Number of PW given 180 Iron Folic Acid (IFA) tablets	1,87,817	1,60,879	-14%	1,51,367	-6%
Girls (6th -12th class) provided 4 IFA tablets in schools	2,72,390	1,57,298	-42%	0	-100%
Boys (6th -12th class) provided 4 IFA tablets in schools	2,77,118	1,56,537	-44%	0	-100%
Number of out of school adolescent girls (10-19 years) provided 4 IFA tablets at Anganwadi Centres	2,60,180	2,10,853	-19%	1,62,875	-23%

Inference:

- The number of tests conducted for anemia has decreased by 46% from 2019-20 to 2020-21.
- Individuals tested positive for severe anemia have also decreased by 45% from 2019-20 to 2020-21, however, the proportion of positive cases to the total cases remains almost constant.
- Overall medications and doses for children and mothers have drastically fallen during the Covid 19 pandemic as compared to the previous year.

Table 50: Incidence of anemia in pregnant women (PW) from 2018-19 to 2020-21

Anemia in Pregnant Women (PW)	2018-19	2019-20	% change from 2018-19 to 2019-20	2020-21	% change from 2019-20 to 2020-21
Number of PW registered for ANC	2,20,969	1,91,247	-13%	1,76,750	-8%
Number of PW having moderate Anemia	1,06,378	97,385	-8%	78,075	-20%
Number of PW having severe Anemia	5,967	5,082	-15%	5,354	5%
% of PW with anemia to total PW registered	51%	54%	3%	47%	-7%
Number of PW treated having severe anemia	4,741	4,778	1%	5,418	13%
Number of PW with hypertension	6,994	7,095	1%	8,586	21%

Note: Anemia is measured by the Haemoglobin (Hb) level per decilitre of blood. For women, normal Hb levels range from 12.1 to 15.1gm/dl, and for men they range from 13.8 to 17.2gm/dl. Moderate anemia is characterised by Hb levels testing between 7.1-10.9gm/dl, and severe anemia is characterised by Hb levels testing below 7gm/dl[67].

Table 51: Age wise number of deaths caused due to anemia in Mumbai from 2017 to 2019

Cause of Death	Year	0-4 Years	5-19 Years	20-39 Years	40-59 Years	60 and Above Years	Total
Thalassaemia and other Anemias (D50-D55, D56, D57-D64)	**2017**	44	55	79	115	486	779
	2018	34	55	69	95	511	764
	2019	22	36	63	113	504	738

Inference:

- The number of pregnant women who tested positive for moderate anemia showed a decrease of 20% from 2019-20 to 2020-21. While the number of women who tested positive for severe anemia increased by 5% in the same period.
- However, when compared to the total pregnant women registered for ANC the number of anemic cases decreased by 7% in 2020-21.
- The number of pregnant women with Hypertension has increased by 21% from 2019-20 to 2020-21
- Total deaths related to anemia have reduced although the number is quite high at 738 in 2019. Anemia-related deaths in the child and adolescent age (5 to 19 years) have decreased from 55 in 2017 to 36 in 2019.

[67] https://www.nhp.gov.in/disease/blood-lymphatic/iron-deficiency-anemia#:~:text=Normal%20Hemoglobin%20Levels%3A%20Hemoglobin%20is,13.8%20to%2017.2%20gm%2Fdl

1.5.2. Integrated Child Development Services

Year:

1975

Background:

Integrated Child Development Services (ICDS) Scheme is one of the flagship programmes of the Government of India as a response to the challenge of providing pre-school non-formal education on one hand and breaking the vicious cycle of malnutrition, morbidity, reduced learning capacity and mortality on the other. The beneficiaries under the Scheme are children in the age group of 0-6 years, pregnant women and lactating mothers[68]. In Mumbai, it has been implemented by the State Government through Anganwadi Centres. The Package of services provided by ICDS includes supplementary nutrition, Vitamin-A, Iron and Folic Acid, immunisation, health check-ups, referral services, treatment of minor illnesses, nutrition and health education to women, pre-school education of children in the age group of 3-6 years, and convergence of other supportive services like water supply, sanitation, etc.

Objectives:

1. To improve the nutritional and health status of children in the age group 0-6 years
2. To lay the foundation for proper psychological, physical and social development of the child; to reduce the incidence of mortality, morbidity, malnutrition and school dropout
3. To achieve effective coordination of policy and implementation amongst the various departments to promote child development
4. To enhance the capability of the mother to look after the normal health and nutritional needs of the child through proper nutrition and health education.

Target:

The scheme is aimed at improving the health, nutrition and education of the target community.

Beneficiaries:

All children below 6 years of age, pregnant women and lactating mothers. Women in the age group of 15-44 years. Adolescent girls in selected blocks.

[68] https://darpg.gov.in/sites/default/files/ICDS.pdf

Implementation Status in Mumbai:

Table 52: ICDS Coverage from 2018-19 to 2020-21[69]

Indicators		2018-19	2019-20	2020-21
Supplementary Nutrition Packages (SNP) Coverage	6-35 Months	93,000	1,19,536	1,42,690
	36-71 Months	1,66,909	1,66,821	1,83,475
	Pregnant women	9,856	13,570	14,205
	Lactating mother	11,939	15,556	17,990
Pre-school education (PSE) Coverage (36-71 month attended for 16 or more days)	Girls	67,915	70,522	58,030
	Boys	69,455	71,461	60,505
Nutritional Status (0-5 Years Children)	Total Children Weighed	2,86,992	2,86,041	1,91,571
	Normal Grade	2,38,143	2,37,594	1,59,230
	Moderately underweight	46,136	44,214	28,953
	Severely underweight	2,713	4,233	3,389

Table 53: ICDS personnel in Mumbai from 2018-19 to 2020-21

Year	AWC Sanc.	AWC Func.	CDPO Sanc.	CDPO In position	Supervisor sanc.	Supervisor In position	AWW Sanc	AWW In position	AWH Sanc	AWH In position
2018-19	5,130	5,130	33	20	206	129	5,130	4,977	5,130	4,316
2019-20	5,130	5,130	33	18	206	124	5,130	4,925	5,130	4,249
2020-21	5,135	5,135	33	17	206	119	5,135	4,925	5,135	4,103

Inference:

- The number of Anganwadi Workers (AWW) in position dropped from 4,977 in 2018-19 to 4,925 in 2020-21.
- The number of severely underweight children decreased from 4,233 in 2019-20 to 3,389 in 2020-21 and so has proportion to total children weighed decreased by 33% from 2019-20 to 2020-21.
- ICDS coverage in 2020-21 (during the pandemic), had increased by 14% for infants (up to 71 months) from 2019-20 to 2020-21 and a similar increase of 11% was also noticed for pregnant women and lactating mothers with the Supplementary Nutrition Packages (SNP) Coverage.

[69] https://icds.gov.in/Forms/View_MPR.aspx

1.5.3. Mid-Day Meal Scheme

Year:
1995

Background:
Malnutrition is widely prevalent in India amongst growing children. Especially within children of the school-going age group, nutritional deficiencies are worryingly prevalent. Not only does malnutrition give rise to morbidity and mortality, but it also prevents a child from developing into a healthy, fully functional adult and harms learning levels[70]. Hence, the National Programme of Nutritional Support to Primary Education (commonly known as the Mid-Day Meal Scheme) was launched as a Centrally Sponsored Scheme on 15th August 1995 to boost the Universalisation of Primary Education by increasing enrolment, retention and attendance and simultaneously impacting on the nutrition of students in primary classes.

Objectives:
1. Improving the nutritional status of children in classes I – VIII in government, local body and government-aided schools.
2. Encouraging poor children, belonging to disadvantaged sections, to attend school more regularly and help them concentrate on classroom activities.
3. Providing nutritional support to children of the primary stage in drought-affected areas.

Target:
The target of the scheme is to help improve the effectiveness of primary education by improving the nutritional status of all primary school children.

Beneficiaries:
All children studying in government, local body and government-aided primary and upper primary schools and the EGS/AIE centres (including Madarsa and Maqtabs supported under SSA of all areas across the country as of 2007)

Implementation Status in Mumbai:
The scheme is being implemented in all Municipal Schools in Mumbai, but there is no data available regarding the quality of food provided.

[70] http://mdm.nic.in/mdm_website/#

1.6. Insurance Schemes

Health insurance schemes financed by the Central Government or State Governments provide health services to insurance holders, covering a wide range of services, treatments, operations, and medical interventions, insured up to a certain amount with the aim of reducing out of pocket expenditures for catastrophic health events.

The table depicts the making and implementation of major programmes/schemes in Mumbai

Government	Central	State	City
Central			
State	Ayushman Bharat-Pradhan Mantri Jan Aarogya Joyana	Mahatma Jyotiba Phule Jan Aarogya Yojana	
City			

PROGRAMME MAKING PROGRAMME IMPLEMENTATION

KEY FINDINGS[1]

- *In Maharashtra, Pradhan Mantri Jan Aarogya Yojana was launched in integration with Mahatma Jyotiba Phule Jan Arogya Yojna and was implemented on mixed Insurance and an assurance Mode on 1st April 2020*
- *1,24,769 individuals in Mumbai have enrolled for this insurance scheme from 2018-19 to 2020-21.*
- *From these, 87% (1,08,338) of the total enrolled, have been beneficiaries of the insurance schemes.*
- *During the pandemic in 2020-21, from the 45,121 enrolled, 85% of them were beneficiaries under these insurance schemes.*

[1] *RTI Data*

6.1 Ayushman Bharat- Pradhan Mantri Jan Aarogya Yojana/ Mahatma Jyotiba Phule Jan Aarogya Yojana

Year:
2018

Background:
Ayushman Bharat Ayushman Bharat, a flagship scheme of the Government of India, was launched as recommended by the NHP 2017, to achieve the vision of Universal Health Coverage (UHC). Ayushman Bharat adopts a continuum of care approach, comprising of two interrelated components, which are Health and Wellness Centres (HWCs)[71] Pradhan Mantri Jan Arogya Yojana (PM-JAY)[72]

The second pillar of Ayushman Bharat – the Pradhan Mantri Jan Arogya Yojana (PMJAY) aims to provide secondary and tertiary hospitalisation care cover of Rs 5 lakh per household per year for about 1,400 procedures at the public and private hospitals. While the primary and preventive care, along with the screening of suspected individuals will be provided at the AB-HWCs, secondary and tertiary care will be provided at the public health facilities, the District Hospitals, Medical colleges and private hospitals empaneled by AB-PMJAY.

In Maharashtra, PMJAY was launched in integration with Mahatma Jyotiba Phule Jan Arogya Yojna and was implemented on mixed Insurance and Assurance Mode. The Integrated Mahatma Jyotiba Phule Jan Arogya Yojana (MJPJAY) and Ayushman Bharat-Pradhan Matri Jan Arogya Yojana (AB-PMJAY) was launched in the state on 1st April 2020.

Objectives:
Disease prevention and health promotion to curb the increasing epidemic of non-communicable diseases.
Create a system of demand-led health care reforms that meet the immediate hospitalisation needs of the eligible beneficiary family in a cashless manner thus insulating the family from catastrophic financial shock.

Target:
To create 1.5 lakh HWC's by 2022 (The targets set out are in a phased manner ie: 15000 HWC's by 2018-19, 40000 by 2019-20, 70000 by 2020-21, 1.1 lakhs by 2021-22, and 1.5 lakhs by December 2022)
To provide medical care to 10.74 crore households

Beneficiaries:
PM-JAY has been rolled out for the bottom 40 percent of the poor and vulnerable population. In absolute numbers, this is close to 10.74 crore households. The inclusion of households is based on the deprivation and occupational criteria of the Socio-Economic Caste Census 2011 (SECC 2011) for rural and urban areas, respectively. This number also includes families that were covered in the Rashtriya Swasthya Bima Yojana (RSBY) but were not present in the SECC 2011 database. Even though PM-JAY uses the SECC as the basis of eligibility of households, many States are already implementing their health insurance schemes with a set of beneficiaries identified. Thus, States have been provided the flexibility to use their database for PM-JAY. However, they will need to ensure that all the families eligible based on the SECC database are also covered. (Refer to Annexure 13 for other Exclusions and Inclusions)

[71] https://ab-hwc.nhp.gov.in/
[72] https://pmjay.gov.in/

Implementation Status in Mumbai:

Table 54: Number of Individuals enrolled and beneficiaries under the Insurance schemes

Year	No. of Enrolled	No. of Beneficiaries	% of beneficiaries to no of enrolled
2018-19	26,146	23,435	90%
2019-20	53,502	46,522	87%
2020-21	45,121	38,381	85%
Total	**1,24,769**	**1,08,338**	**87%**

Inferences:

- 1,24,769 persons have enrolled in the Mahatma Jyotiba Phule Jan Aarogya Yojana (MJPJAY) and Ayushman Bharat insurance schemes from 2018-19 to 2020-21, of which 87% (1,08,338) have been beneficiaries of these schemes
- The number of persons enrolled have increased from 26,146 in 2018-19 to 53,502 in 2019-20. However, this number declined from 53,502 in 2019-20 to 45,121 in 2020-21. During the pandemic in 2020-21, out of the 45,121 persons enrolled, 85% (38,381) of them were beneficiaries under these insurance schemes

2. Sustainable Development Goals

The Sustainable Development Goals (SDGs) is a universal call to action to end poverty, protect the planet, and ensure that by 2030 all people enjoy peace and prosperity. The Goal 3: Good Health and Well-being to ensure healthy lives and promote well-being for all at all ages. India adopted the SDG goals and the target on 2015 at the UN General Assembly

The year 2020 was the fifth anniversary of the adoption of SDGs**. The following components related to status of health in Mumbai have thus been analysed based on the relevant SDG targets. This can showcase why there is a need for policy planning agencies to incorporate the SDG targets. So that stringent measures can be formulated to map how effective a programme implementation is carried out for various health preventions in Mumbai and in the country. Also, we only have nine years left to achieve theses SDG goals, hence, it is imperative to plan, frame, make necessary changes and implement the new/existing schemes so that it aims to achieve the adopted SDG goals.**

Table 55: SDG Goal 3 targets adopted by India and their status in Mumbai

Criteria	Parameters	Target	Status
Human Resource	Skilled health professionals' density	45 Total physicians, nurses and midwives per 10,000 population	**8 medical staff** per 10,000 population
Communicable Disease	Tuberculosis	0 TB cases/1 lakh population by 2030 under SDG and 0 TB cases/1 lakh population by 2025 under Revised National Tuberculosis Control Programme	**298 cases**/1 lakh population in 2020
	HIV	HIV incidence of 0/per 1,000 uninfected population	0.2/per 1,000 uninfected population
	Other Communicable/ Epidemics	End the epidemics of malaria and neglected tropical diseases and combat hepatitis, water-borne diseases and other communicable diseases	**15,623 malaria cases** **9,072 dengue cases**
Non-Communicable Disease	Non-Communicable Disease	Reduce by one third premature mortality from non-communicable diseases through prevention and treatment and	The deaths due to diabetes has increased by 352% from 2015 to 2019 The deaths due to hypertension has decreased by 9% from 2015 to 2019

	Mental Health	promote mental health and well-being	**41,159** number of mental health cases
			Increase in the number of deaths caused by mental and behavioral disorders by 6% from 447 in 2017 to 475 in 2019.
RMNCHA+	Neo-natal mortality	Reduce to at least as low as 12 per 1,000 live births	**16** (deaths per 1000 live births)
	Infant and Child Health	Under-5 mortality to at least as low as 25 per 1,000 live births	**26** per 1,000 live births
	Maternal Health	Reduce Maternal Mortality Rate (deaths per 1,00,000 live births) to 70 by 2030 under SDG	**164** (deaths per 1,00,000 live births)
	Universal access to reproductive health-care services by 2030.	100% institutional deliveries out of the total deliveries reported	**99.96%** institutional deliveries
	Reproductive Health	Ensure universal access to sexual and reproductive health-care services, including for family planning, information and education, and the integration of reproductive health into national strategies and programmes.	33,633 **Sexually Transmitted Infections reported** 99.91% **family planning interventions were targeted towards females.**
Nutrition	Micronutrient Deficiencies	Reduce percentage of pregnant women aged 15 to 49 years who are anaemic (11g/dl) to 23.57% by 2030 under SDG	**5,354** pregnant women **reported anaemic (less than 11g/dl)**

3. Recommendations

1. Data Management

- Data on all the diseases and cases prevalent in the city should be maintained and analysed on a real-time basis. This will enable better methods to track the occurrence of diseases and ensure corrective measures are implemented to tackle them. Similarly, cause of death data can also help to identify the diseases that contribute to the deaths registered in the city and can allow for government to create targeted interventions.
- In all, there is a need for data-centric policy planning and programmes for all diseases like communicable and non-communicable diseases, mental health as well as programmes specific to mother and children.

2. Meeting SDG Target Should be Prioritised

- The SDGs provide specific targets that should be achieved to ensure good health and wellbeing of the citizens.
- Thus, all health policies and programmes must aim towards achieving the SDGs so that they can create specific milestones to ensure all epidemic like TB, malaria, HIV, etc. are eradicated by 2030.
- Additionally, with the help of data, the local government can track the status of health according to these targets and ensure corrective interventions are carried out.

3. Medical Testing Should Be Amplified

- The pandemic brought about several restrictions that led to a decrease in the access to healthcare services for diseases other than COVID 19.
- Thus, innovative measures must be undertaken to increase medical tests for all age groups for various diseases that are prevalent in the city, especially during the pandemic**.**

IV. Annexures

1. List of Government dispensaries/hospitals

Sr. No.	Government Hospitals	Sr. No.	Government Hospitals
1	Central Railway Hospital	5	E.S.I.S. Hospital, Worli
2	Western Railway Hospital	6	E.S.I.S. Hospital, Mulund
3	Mumbai Port Trust Hospital, Wadala	7	E.S.I.S. Hospital, Kandivali
4	Nagpada and Naigaon Police Hospital	8	ESIC Model Hospital, Marol
Sr. No.	**Police Dispensaries**	**Sr. No.**	**Police Dispensaries**
1	Police Headquarters Awar Dispensary	7	Santacruz Police Dispensary
2	Police Dispensary, Tardeo	8	Andheri Police Dispensary
3	Dr. D.B. Marg Police Dispensary	9	Marol Police Dispensary
4	Dadar Police Dispensary	10	Kandivali Police Dispensary
5	LA-II HQ Police Dispensary, Worli	11	Police Dispensary, Neharu Nagar
6	Mahim Police Dispensary	12	Pant Nagar Dispensary
Sr. No.	**Municipal Hospitals**	**Sr. No.**	**Municipal Hospitals**
1	Acworth Municipal Hospital	14	M.W. Desai Hospital
2	B.Y. L. Nair Charitable Hospital	15	Maa Hospital, Diwalabai Mohanlal Mehta Hospital
3	Centenary Hospital, Govandi	16	Mahatma Jyotiba Phule Hospital
4	Dr. Babasaheb Ambedkar Hospital Kandivali (W) (Centenary Hospital)	17	Municipal Group of T.B. Hospital
5	Dr. R.N. Cooper Hospital	18	S. V. D. Sawarkar Hospital
6	E.N.T Hospital	19	S.K Patil Hospital
7	Eye Hospital	20	Sant Muktabai Hospital
8	K. B. Bhabha Hospital, Bandra	21	Seth V.C. Gandhi and M. A. Vora Rajawadi Hospital
9	K.B. Bhabha Hospital	22	Shri Harilal Bhagwati Hospital
10	Kasturba Hospital	23	Siddarth Hospital
11	Kasturba X (Cross) Road Hospital (Borivali)	24	Smt. Mansadevi T. Agarwal Hospital
12	King Edward Memorial Hospital	25	Trauma Care Hospital Jogeshwari East
13	Lokmanya Tilak Hospital	26	V. N. Desai Hospital
Sr. No.	**State Hospitals**	**Sr. No.**	**State Hospitals**
1	Gokuldas Tejpal Hospital	4	St. George's Hospital
2	Cama and Albless Hospital	5	General Hospital (Malwani)
3	Sir J.J. Group of Hospitals		

For list of MCGM Municipal dispensaries refer to the link below:

https://portal.mcgm.gov.in/irj/go/km/docs/documents/HomePage%20Data/Whats%20New/NON-%20COVID%20FACILITIES/MUNICIPAL%20DISPENSARIES.pdf

2. List of Basic and Advanced Tests under Aapli Chikitsa scheme

Sr no	Type	Test	TAT	Sr no	Type	Test	TAT
1	Basic	HB. CBC, Platelet count & ESR	6 Hrs	36	Basic	S. Triglycerides	6 Hrs
2	Basic	PS for MP	6 Hrs	37	Basic	S.HDL	6 Hrs
3	Basic	Blood Grouping	6 Hrs	38	Basic	S.LDL	6 Hrs
4	Basic	Urine Routine & Microscopy	6 hrs	39	Basic	S. VLDL	6 Hrs
5	Basic	Stool routine & Microscopy	6 hrs	40	Basic	S. Amylase	6 Hrs
6	Basic	Stool Hanging drop	6 hrs	41	Basic	U. Micro albumin	6 Hrs
7	Basic	G6PD	36-48 hrs	42	Basic	S. Acid Phosphatase	6 Hrs
8	Basic	Blood Glucose	6 Hrs	43	Basic	T3	6 Hrs
9	Basic	S. Total Bilirubin	6 Hrs	44	Basic	T4	6 Hrs
10	Basic	S. Direct Bilirubin	6 his	45	Basic	TSH	6 Hrs
11	Basic	SGPT/ALT	6 hrs	46	Basic	FT3	6 Hrs
12	Basic	SGOT/AST	6 hrs	47	Basic	FT4	6 Hrs
13	Basic	VDRL	6 hrs	48	Basic	ELISA for IgM to HEV	8 Hrs
14	Basic	WIDAL tube test	24 hrs	49	Basic	ELISA for HBsAg	8 Hrs
15	Basic	Rapid test for Leptospirosis IgM Antibody	6 hrs	50	Basic	TORCH Panel	24 hrs
16	Basic	Rapid test for Dengue NS1 Antigen	6 hrs	51	Basic	ASLO	6 Hrs.
17	Basic	Rapid test for Malaria Antieen	6 hrs	52	Basic	HbA1C	8 hrs
18	Basic	Sputum for AFB	6 hrs	53	Basic	RA qualitative	6 hrs
19	Basic	S. BUN	6 hrs	54	Basic	HCV Rapid	8 hrs
20	Basic	S. Creatinine	6 hrs	55	Basic	HBsAg Rapid	8 hrs
21	Basic	BT.CT	6 Hrs	56	Basic	PT/INR	6 hrs
22	Basic	Cross Matching	6 Hrs	57	Basic	Reticulocyte Count	6 hrs
23	Basic	PAP smear Cytology	24-48 Hrs	58	Basic	Sickling Test	6 hrs
24	Basic	FNAC	24-48 Hrs	59	Basic	Body fluid Routine & Microscopy	6 Hrs
25	Basic	ALP	6 Hrs	60	Basic	Rapid test for Dengue IgM Antibody	6 Hrs
26	Basic	GGT	6 Hrs	61	Basic	ELISA for Dengue IgM Antibody	6 Hrs
27	Basic	S. Total Proteins	6 Hrs	62	Basic	CSF Routine & Microscopy	6 hrs
28	Basic	S. Albumin	6 Hrs	63	Basic	Semen examination	24-48 Hrs
29	Basic	S. Globulins	6 Hrs	64	Basic	APTT	6 hrs

Sr no	Type	Test	TAT	Sr no	Type	Test	TAT
30	Basic	S. A:G Ratio	6 Hrs	65	Basic	Biopsy	24-48 Hrs
31	Basic	S. Urea	6 Hrs	66	Basic	HPE small specimens	24-48 Hrs
32	Basic	S. Total Calcium	6 Hrs	67	Basic	HPE big specimens	3-5 days
33	Basic	S. Phosphorus	6 Hrs	68	Basic	S. Ionic Calcium	6 Hrs
34	Basic	S. Uric acid	6 Hrs	69	Basic	S. Electrolytes	6 Hrs
35	Basic	S. Cholesterol	6Hrs	70	Basic	U. Electrolytes	6 Hrs
71	Basic	Urea Clearance	6 Hrs	5	Advanced	Anti ds DNA	36-48 hrs
72	Basic	Creatinine Clearence	6 Hrs	6	Advanced	Blood Culture & AST	By 6 days
73	Basic	S. Lipase	6 Hrs	7	Advanced	AFB Culture & sensitivity	10-12 weeks
74	Basic	S. Troponin 1	6 Hrs	8	Advanced	Bacterial culture & sensitivity	2-4 days
75	Basic	S. Adenosine Deaminase	6 Hrs	9	Advanced	Liquid (MGIT) & DST for TB	6 days
76	Basic	FSH	6 Hrs	10	Advanced	ELISA for Amoebic liver abscess	8 hrs
77	Basic	LH	6 Hrs	11	Advanced	ELISA for Hydatid Cyst	8 hrs
78	Basic	Prolactin	6 Hrs	12	Advanced	S. C Peptide	4 days
79	Basic	Testesterone	6 Hrs	13	Advanced	Anti phospholipid antibody	4 days
80	Basic	Estrogen E2	2 days	14	Advanced	Anti thyroid antibodies	4 days
81	Basic	Beta HCG	2 davs	15	Advanced	D Dimer	6 hrs
82	Basic	Total PSA	2 davs	16	Advanced	S. Insulin	4 days
83	Basic	Total CPK	6 Hrs	17	Advanced	S. Digoxin	2 days
84	Basic	CPK MB	6 Hrs	18	Advanced	S. Carbamazepine	2 days
85	Basic	S. Iron	8 Hrs	19	Advanced	S. Phenytoin Sodium	2 days
86	Basic	S. Ferritin	8 Hrs	20	Advanced	Anti Pro BNP	6 hrs
87	Basic	S. T1BC	8 Hrs	21	Advanced	PTH	4 days
88	Basic	24 Hrs urinary Proteins	6 Hrs	22	Advanced	Blood Acetylcholinesterase	6 hrs
89	Basic	CRP quantitative	6 Hrs	23	Advanced	Blood Ammonia	6 hrs

Sr no	Type	Test	TAT	Sr no	Type	Test	TAT
90	Basic	Vitamin D2	8 Hrs	24	Advanced	S Cortisol	4 days
91	Basic	Vitamin D3	8 Hrs	25	Advanced	CA 125	4 days
92	Basic	Folic acid	4 days	26	Advanced	CA 19-9	4 days
93	Basic	Vitamin BI2	8 Hrs	27	Advanced	CEA	4 days
94	Basic	LDH	6 Hrs	28	Advanced	ACTH	4 days
95	Basic	ELISA for IgM to Leptospirosis	8 Hrs	29	Advanced	AFP	4 days
96	Basic	ELISA for NS1 for Dengue	8 Hrs	30	Advanced	Growth Hormone	4 days
97	Basic	ELISA for IgM lo HCV	8 Hrs	31	Advanced	CCP antibody	36-48 hrs
98	Basic	ELISA for IgM to HAV	8 Hrs	32	Advanced	HLA B 27	2-3 days
99	Basic	Coombs Test	8 Hrs	33	Advanced	FDP	6 hrs
100	Basic	RA quantitative	6 hrs	34	Advanced	CSF latex aggulitimation for Crytococcsis	6 hrs
101	Basic	Chickengunya IgM antibody	8 Hrs	35	Advanced	CSF latex aggulitimation for bacterial pathogens	6 hrs
1	Advanced	S. Ionic Calcium	6 Hrs	36	Advanced	Fungal Culture & AST	14 days
2	Advanced	Hb Variants	24-48 Hrs	37	Advanced	Insulin antibodies	4 days
3	Advanced	HPE with IHC	3-5 days	38	Advanced	17 OHP	5 days
4	Advanced	ANA	36-48 hrs				

3. Registration of Births and Deaths Act 1969

- Provides for registration of births and deaths and for matters connected.
- 'Source of demographic data for socio-economic planning, development of health systems and population control' *(as per 2012 Training Manual for Civil Registration Functionaries in India, Office of Register General of India, Ministry of Home Affairs, Government of India).*

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- **Medical Certification of Causes of Death (MCCD)**

- **In Maharashtra, on every 10th of the month, monthly reports are received at state office of Deputy Chief Registrar of Birth and Death at Pune.**
- The strategy they follow:
- • It is the duty of Registrar (in the case of Mumbai it is Executive Health Officer of MCGM), to ask about form No.4 and 4A according to occurrence of death, while entering the death event.
- • Deputy Director is responsible for compilation, coding and analysis of data received through MCCD according to ICD (International Cause of Death) – 10 (http://www.who.int/whosis/icd10/).
- *Source: http://www.maha-arogya.gov.in/programs/other/sbhivs/strategy.htm*

MEDICAL CERTIFICATE OF CAUSE OF DEATH

Directions for completing the form

Name of deceased: To be given in full. Do not use initials. If deceased is an infant, not yet named at time of death, write 'Son of (S/o)' or 'Daughter of (D/o)', followed by names of mother and father.

Age: If the deceased was over 1 year of age, give age in completed years. If the deceased was below 1 year of age, give age in months and if below 1 month give age in completed number of days, and if below one day, in hours.

Cause of Death: This part of the form should always be completed by the attending physician personally.

The certificate of cause of death is divided into two parts, I and II. Part I is again divided into three parts, lines (a) (b) (c). If a single morbid condition completely explains the deaths, then this will be written on line (a) of Part I, and nothing more need be written in the rest of Part I or in Part II, for example, smallpox, lobar pneumonia, cardiac beriberi, are sufficient cause of death and usually nothing more is needed.

Often, however, a number of morbid conditions will have been present at death, and the doctor must then complete the certificate in the proper manner so that the correct underlying cause will be tabulated. First, enter in Part I(a) the immediate cause of death. This does not mean the mode of dying, e.g., heart failure, respiratory failure, etc. These terms should not be appear on the certificate at all since they are modes of dying and not causes of death. Next consider whether the immediate cause is a complication or delayed result of some other cause. If so, enter the antecedent cause in Part I, line (b). Sometimes there will be three stages in the course of events leading to death. If so, line (c) will be completed. The underlying cause to be tabulated is always written in last in Part I.

Morbid conditions or injuries may be present which were not directly related to the train of events causing death but which contributed in some way to the fatal outcome. Sometimes the doctor finds it difficult to decide, especially for infant deaths, which of several independent conditions was the primary cause of death; but only one cause can be tabulated, so the doctor must decide. If the other diseases are not effects of the underlying cause, they are entered in Part II.

Do not write two or more conditions on a single line. Please write the names of the diseases (in full) in the certificates as legibly as possible to avoid the risk of their being misread.

Onset: Complete the column for interval between onset and death whenever possible, even if very approximately, e.g., "from birth" "several years".

Accidental or violent deaths: Both the external cause and the nature of the injury are needed and should be stated. The doctor or hospital should always be able to describe the injury, stating the part of the body injured, and should give the external cause in full when this is shown. Example : (a) Hypostatic pneumonia; (b) Fracture of neck of femur; (c) Fall from ladder at home.

Maternal deaths: Be sure to answer the question on pregnancy and delivery. This information is needed for all women of child-bearing age, even though the pregnancy may have had nothing to do with the death.

Old age or senility: Old age (or senility) should not be given as a cause of death if a more specific cause is known. If old age was a contributory factor, it should be entered in Part II. Example : (a) Chronic bronchitis, II old age.

Completeness of information: A complete case history is not wanted, but, if the information is available, enough details should be given to enable the underlying cause to be properly classified.

Example: Anaemia – Give type of anaemia, if known. Neoplasm – Indicate whether benign or malignant, and site, with site of primary neoplasm, whenever possible. Heart disease – Describe the condition specifically; if congestive heart failure, chronic on pulmonale, etc., are mentioned, give the antecedent conditions. Tetanus – Describe the antecedent injury, if known. Operation – State the condition for which the operation was performed. Dysentery – Specify whether bacillary, amoebic, etc., if known. Complications of pregnancy or delivery – Describe the complication specifically. Tuberculosis – Give organs affected.

Symptomatic statement: Convulsions, diarrhea, fever, ascites, jaundice, debility, etc., are symptoms which may be due to any one of a number of different conditions. Sometimes nothing more is known, but whenever possible, give the disease which caused the symptom.

Manner of Death: Deaths not due to external cause should be identified as 'Natural'. If the cause of death is known, but it is not known whether it was the result of an accident, suicide or homicide and is subject to further investigation, the cause of death should invariably be filled in and the manner of death should be shown as 'Pending investigation'.

4. Timeline of Cause of Death Data at MCGM, State and Central Government Level

In 2016, the Civil Registration System of the central government for registration of Births and Deaths in India was centralised. The software was to enable uniformity in registration and to improve the percentage of registered births and deaths data in compliance with WHO recommendations and to enable better monitoring of Sustainable Development Goals (SDGs).

Maharashtra state began implementation of registration of the online CRS system from 1st January, 2016.
In Mumbai, a software adopted by MCGM from 2007 called SAP software was used to record all the information online including the cause of death data by the Department of Public Health. However, from 1st January, 2016 the recording of birth and death registration was transferred to the CRS software of the central government.

Praja has been collecting cause of death data since 2011. We received the data on cause of death up to 31st December, 2015 from the MCGM through their SAP system. However, in 2016 when Praja filed an RTI for the information on cause of death in the city, we received a response stating that – "The causes of death gender wise, age wise, cause wise and month wise is generated under CRS system. However, ICD-10 code wise and ward wise is not available at Registrar Level of MCGM. When reports were seen in CRS system, it is observed all the fields are showing zero figures. This typical problem has already been communicated to Officer of Registrar General and Census Commissioner of India via email. The matter was discussed during the monthly review meeting at Deputy Director of Health Services and Deputy Registrar of Birth and Death, Maharashtra State on 19th August, 2016 as the CRS Software is not developed by MCGM" (Refer to Annexure 3).

The MCGM claimed not to have access to cause of death data due to a technical issue. Further the online published data of the Department of Public health also stated that – 'Disclaimer: From 1st January 2016 Registration of Births and Deaths is doing in Central Government portal crsorgi.gov.in and Reports of Births and Deaths are retrieved from CRS Portal.' The said reports retrieved however only have information of the number of births and deaths and not the causes of the same.

The first appeal to the Deputy Executive Health Officer and the second appeal to the State Information Commission were lost on the basis that MCGM does not have access to the said data and therefore cannot provide it under RTI. Following this Praja filed an RTI at the state government level to the Health Intelligence and Vital Statistics (HIVS), Pune who forwarded the same to MCGM, providing the same reply. In the first appeal the HIVS stated that they do not have access to the CRS software. They also allowed us to access the data available with them but that did not include the cause of death data.

An RTI was filed to the Vital Statistics Division (VSD), New Delhi, requesting data directly from the CRS of the central government. The Vital Statistics Division forwarded the data to the state government at Director General of Health Services, Mumbai which further forwarded the same to the MCGM. Since both the state and local governments claimed that they did not have access to the cause of death data in the CRS software although at the local level, the MCGM had login access to enter the said data in the software, the software only provided output with reference to number of deaths. An RTI was thus filed at the Vital Statistics Division for providing cause of death data for 2016, in reply to which a 2014 report on cause of death was provided. Further, our efforts to acquire cause of death data led the VSD department to assure that the said data will be provided by the IT department if a request for the same is provided by the MCGM. Accordingly, we requested the RTIs filed

at ward level to be forwarded to Delhi. However, no information was provided. In the first appeal promise to provide the data was reiterated but without success.

Finally, Praja filed an appeal at the Central Information Commission (CIC), where the CRS claimed that nowhere was it mandated to maintain the data only in the central government software and that health being a state subject, the respective states and local bodies could maintain their own management systems. The CIC seconded this view and also directed the CRS department to prepare guidelines that clarify the same and also work on revamping the software to provide city/district wise data. It reiterated that the cause of death data has to be provided by the point source, that is the local body and the state has the power to manage its own systems for maintaining the data.

A letter was also sent to the Prime Minister's Office (PMO), which through the home ministry was forwarded to the VSD which was directed to update their Management Information System, to solve the discrepancy. It was claimed that the said issue is being worked upon; however, it has not yet been implemented.

Cause of death is an essential and basic data which is important for making and monitoring of any public health policy. Furthermore, Municipal Corporation has failed to abide by the rules and regulations under Registration of Births and Death Act, 1969 (Refer Annexure 3).

The evasion of providing this data in the public domain appears to be purposeful, in the face of the revealing status of health in the country that the cause of death data brings forth. The CRS Report, 2016 mentions, "For the country, the requirement of a complete CRS system is a must as it has important administrative and statistical uses. The data generated through a complete and up to date CRS is essential for socio-economic planning and to evaluate the effectiveness of various social sector programs." The government seems to go back upon its own objectives of providing integrated software for the processing and analysis of data which would help in policy. The argument that the data is sensitive and thus centralised and available only at the central level for analysis and policy making does not hold good on the eve of 25 years of constitutional decentralisation adopted in the country. Although a centralised system of recording births and deaths, has its merits, it is imperative that the local government which acts as the primary provider of basic services, such as health has access to the cause of death data and is able to analyse the same in order to ensure effective delivery of this crucial service.

When the MCGM's SAP system recorded the cause of death data, its analysis would enable the health department officers to study trends in the data and to map locality and area wise incidences to enable identifying problematic areas and better monitoring of the same. It is important for the government that implements a particular policy to have access to the information regarding the areas under its jurisdiction. By repeatedly transferring the RTI back to the local government in spite of being well aware that the latter does not have access to it, the central government is absolving itself of its responsibility. In spite of an order from the Ministry to the VSD, if it is unable to provide simple access of data to the agency that is responsible for implementation of many centrally-sponsored health policies, this reflects sheer insensitivity of the central government towards preventable deaths in its population.

It is interesting, on how the government that on one hand advocates for a 'Digital Bharat' is unable to solve an internal technical discrepancy and hides behind the same, to deny the local authority its rightful access to data.

On 31st August 2018, at appeal hearing of CIC where central information commissioner ordered that clear guidelines need to be given to states/local bodies on whether they have to continue maintaining the data and stated that the CRS should make the data available district wise and also provide access to the state and local bodies for the said data. It also stated that information be provided to us in 4 weeks.

However, neither MCGM nor SBHVIS shared any information with us. To pursue this Praja sent a letter to different authorities i.e. HIVS, CRS, DGHS Maharashtra, CPIO-MCCD to understand whether they received CIC's appeal order and whether any action has been taken after it. We also complained about non-followance of its order to the CIC. On sending the new RTIs to MCGM we have received the similar replies as before.

Following the CIC appeal it comes to light that the state and the local body also cannot absolve themselves of the duty to maintain and provide the cause of death data using the pretext of lack of access to CRS. Its high time CRS should take actions in providing data to local bodies. Nevertheless, the local body should take responsibility of maintaining and providing the cause of death data as well.

In the first appeal in MCGM on 26th June, 2019 the MCGM claimed they still did not have access to the data from CRS and were in correspondence with the central government in respect to the same and agreed to share the correspondence letters with Praja.

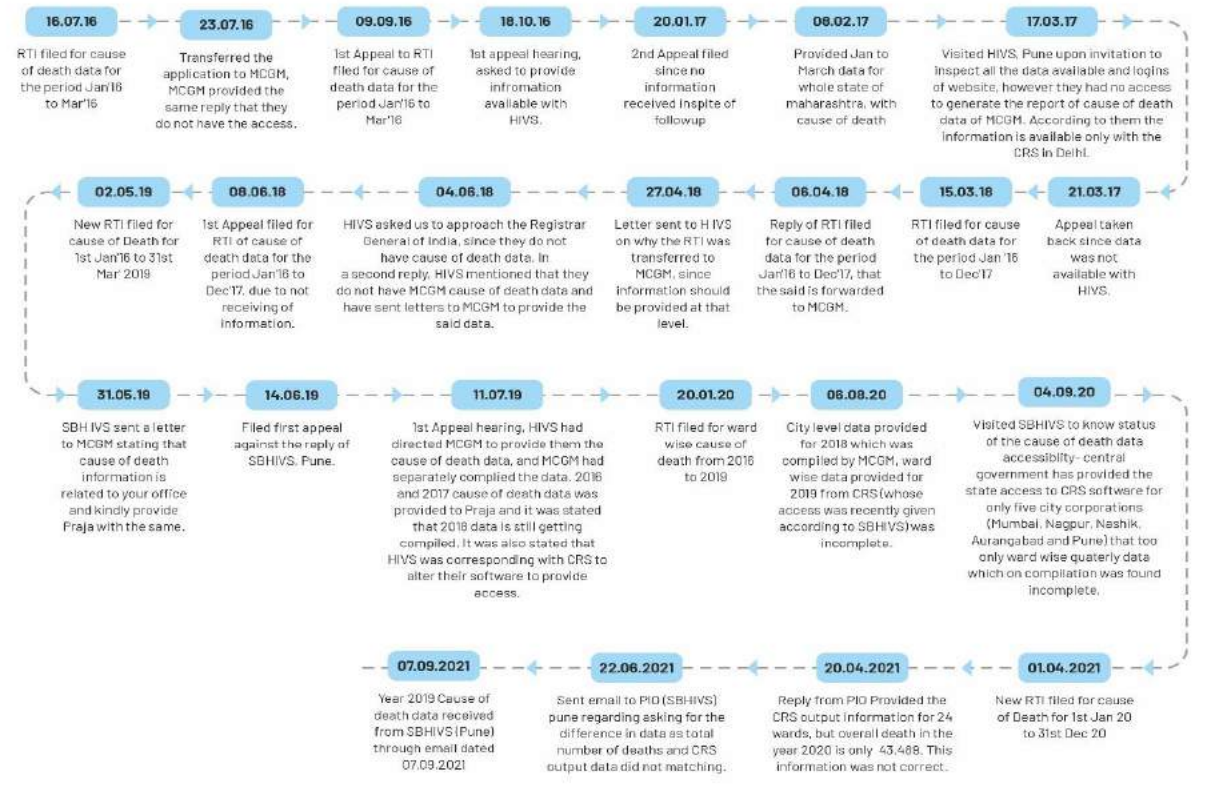
Through the correspondence, and in the first appeal in HIVS, Pune on 11th July, 2019, it came to our knowledge that on the directive of the state, the MCGM had separately compiled all the cause of death data for the years 2016 and 2017 and provided it to the state only recently, and that 2018 data was still getting compiled. In all of this, what comes to light is the utter confusion and duplication of work that the local and state governments had to undergo due to lack of accessibility of CRS software, and the difficulty that the MCGM for the last three years has faced in monitoring the causes of death in the city and made a compiled report on their end only in 2019 after being directed by the state.

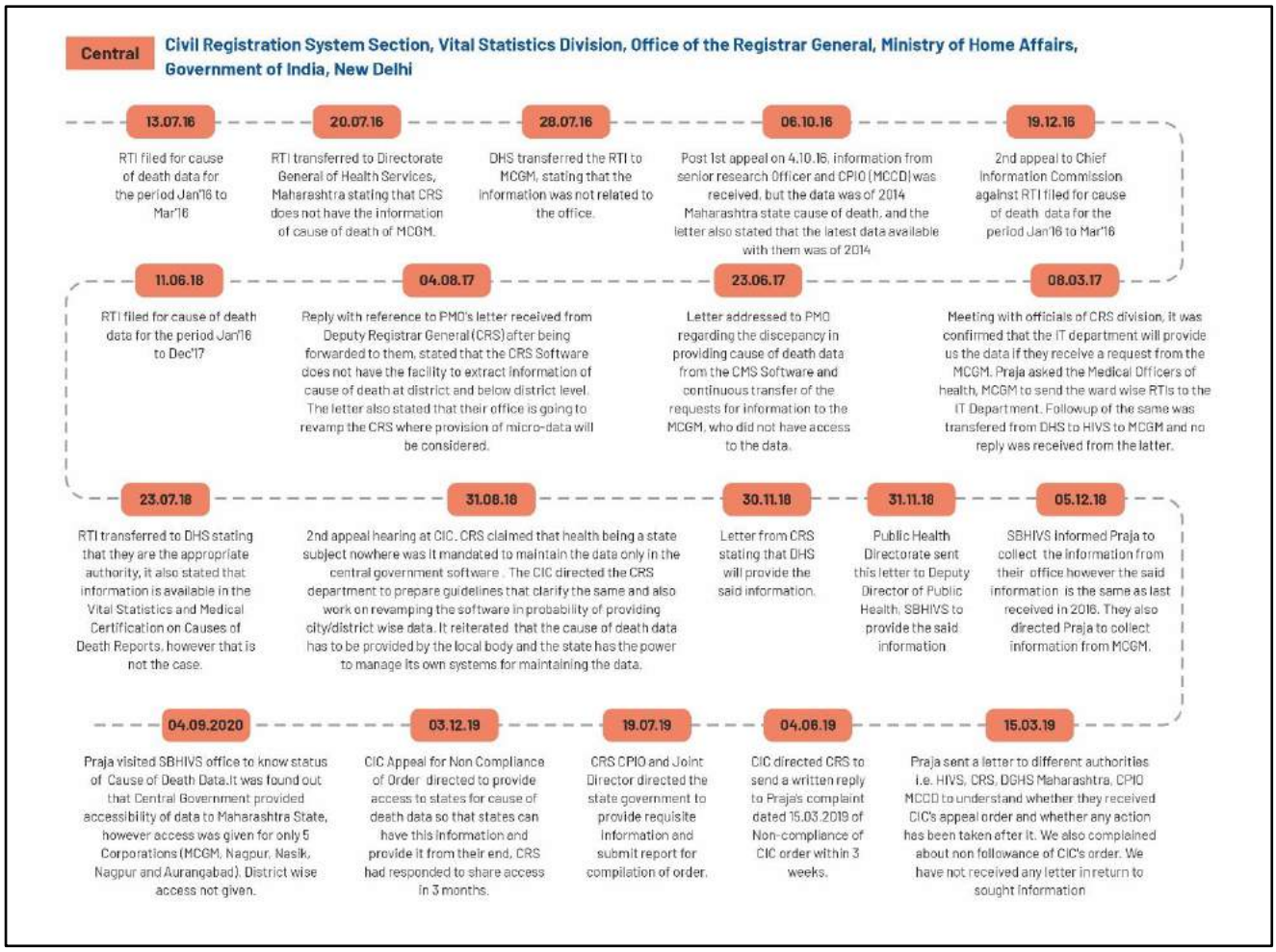
In mid-2020, the state government was given access to the CRS software but only for 5 corporations in Maharashtra and only ward wise quarterly reports were allowed for generation acting as a hindrant for analysis of the data. Further the data when computed for Mumbai was found to be incomplete the as overall death in the year 2020 is only 43,489. Thus an email to the PIO (SBHIVS) in Pune was sent, to explain the difference in data as total number of deaths and CRS output data did not match. MCGM also mentioned that they were in the process of collating the COD for 2020-21 hence it is yet to be completed.

Since the MCGM is the responsible body for deaths registration, it is imperative that it maintain this data in its software for regularly monitoring the state of health in the city. At the same time the central government needs to follow the CIC order and revamp its software to provide access of district and ward wise data to the local government, to prevent duplication of record maintenance.

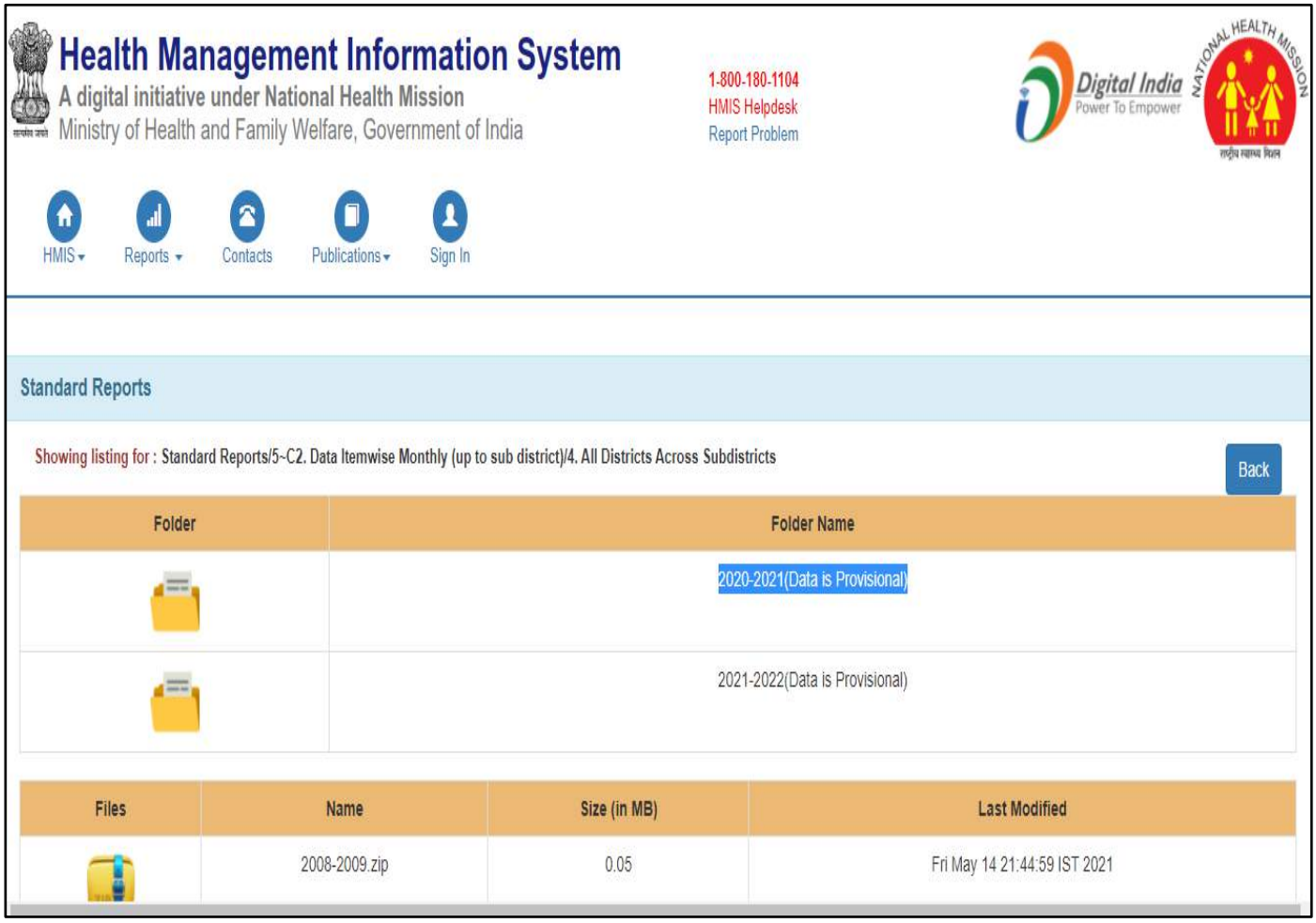
Local **Public Health Department, F/South, Municipal Corporation of Greater Mumbai**

State **Health Intelligence and Vital Statistics (HIVS), Pune**




Central
Civil Registration System Section, Vital Statistics Division, Office of the Registrar General, Ministry of Home Affairs, Government of India, New Delhi
13.07.16
RTI filed for cause of death data for the period Jan'16 to Mar'16
20.07.16
RTI transferred to Directorate General of Health Services, Maharashtra stating that CRS does not have the information of cause of death of MCGM.
28.07.16
DHS transferred the RTI to MCGM, stating that the information was not related to the office.
06.10.16
Post 1st appeal on 4.10.16, information from senior research Officer and CPIO (MCCD) was received, but the data was of 2014 Maharashtra state cause of death, and the letter also stated that the latest data available with them was of 2014
19.12.16
2nd appeal to Chief Information Commission against RTI filed for cause of death data for the period Jan'16 to Mar'16
11.06.18
RTI filed for cause of death data for the period Jan'16 to Dec'17
04.08.17
Reply with reference to PMO's letter received from Deputy Registrar General (CRS) after being forwarded to them, stated that the CRS Software does not have the facility to extract information of cause of death at district and below district level. The letter also stated that their office is going to revamp the CRS where provision of micro-data will be considered.
23.06.17
Letter addressed to PMO regarding the discepancy in providing cause of death data from the CMS Software and continuous transfer of the requests for information to the MCGM, who did not have access to the data.
08.03.17
Meeting with officials of CRS division, it was confirmed that the IT department will provide us the data if they receive a request from the MCGM. Praja asked the Medical Officers of health, MCGM to send the ward wise RTIs to the IT Department. Followup of the same was transfered from DHS to HIVS to MCGM and no reply was received from the latter.
23.07.18
RTI transferred to DHS stating that they are the appropriate authority, it also stated that information is available in the Vital Statistics and Medical Certification on Causes of Death Reports, however that is not the case.
31.08.18
2nd appeal hearing at CIC. CRS claimed that health being a state subject nowhere was it mandated to maintain the data only in the central government software . The CIC directed the CRS department to prepare guidelines that clarify the same and also work on revamping the software in probability of providing city/district wise data. It reiterated that the cause of death data has to be provided by the local body and the state has the power to manage its own systems for maintaining the data.
30.11.18
Letter from CRS stating that DHS will provide the said information.
31.11.18
Public Health Directorate sent this letter to Deputy Director of Public Health, SBHIVS to provide the said information
05.12.18
SBHIVS informed Praja to collect the information from their office however the said information is the same as last received in 2016. They also directed Praja to collect information from MCGM.
04.09.2020
Praja visited SBHIVS office to know status of Cause of Death Data.It was found out that Central Government provided accessibility of data to Maharashtra State, however access was given for only 5 Corporations (MCGM, Nagpur, Nasik, Nagpur and Aurangabad). District wise access not given.
03.12.19
CIC Appeal for Non Compliance of Order directed to provide access to states for cause of death data so that states can have this information and provide it from their end, CRS had responded to share access in 3 months.
19.07.19
CRS CPIO and Joint Director directed the state government to provide requisite information and submit report for compilation of order.
04.06.19
CIC directed CRS to send a written reply to Praja's complaint dated 15.03.2019 of Non-compliance of CIC order within 3 weeks.
15.03.19
Praja sent a letter to different authorities i.e. HIVS, CRS, DGHS Maharashtra, CPIO MCCD to understand whether they received CIC's appeal order and whether any action has been taken after it. We also complained about non followance of CIC's order. We have not received any letter in return to sought information

5. Health MIS


Health Management Information System
A digital initiative under National Health Mission
Ministry of Health and Family Welfare, Government of India
1-800-180-1104
HMIS Helpdesk
Report Problem
Digital India
Power To Empower
NATIONAL HEALTH MISSION
HMIS
Reports
Contacts
Publications
Sign In
Standard Reports
Showing listing for : Standard Reports/5~C2. Data Itemwise Monthly (up to sub district)/4. All Districts Across Subdistricts
Back
Folder
Folder Name
2020-2021(Data is Provisional)
2021-2022(Data is Provisional)
Files
Name
Size (in MB)
Last Modified
2008-2009.zip
0.05
Fri May 14 21:44:59 IST 2021

6.Aapli Chikitsa

MUNICIPAL CORPORATION OF GREATER MUMBAI

CENTRAL PURCHASE DEPARTMENT

566, N.M. JOSHI MARG, BYCULLA (WEST), MUMBAI: - 400 011

No.DY.CH. ENG /CPD / 7321 /A.E.-5 DATE: - 08.02.2019

RATE CIRCULAR

Direct Debit

vide Sanction of Standing Committee u/no. SCR No.1540, dated :-16.01.2019 to enter into contract with the following company/vendor for **outsourcing of laboratory investigative services "Aapli chikitsa"for the MCGM hospital, Mumbai** (Bid no. **7100126847**).

The details of Company Name & address of the recommended tenderer and terms and conditions applicable for the supply are as follows:-

CONTRACT PERIOD: 4 years from date of issue of Acceptance Letter (i.e. 08.02.2019)

The Name & Address of the recommended tenderer are as under:-

M/s. Thyrocare Technologies Limited (Vendor Code:28297)
D 37 / 1, TTC, MIDC, Turbhe,
Navi Mumbai-400703
Email: chandrasekarm@thyrocare.com
Tel: +91 – 022 – 30900000 / 41252525

1) Zone- (Western Suburban):-

Sr.No.	Description		Approximate total nos. of Test	Rate quoted by M/s. Thyrocare for 60% Guarantted samples test in Rs.	Total nos. of Guaranteed samples test (60% of total teast)	Total Rates for Guaranteed samples test (60% of total test) in Rs. (1)	Total nos. of Balance samples test (40% of total test)	Total Rates for Balance samples test (40% of total test) in Rs (2)
A)	For 1 year-							
	Western Suburban	Basic Test	2,55,000	223	1,53,000	3,41,19,000.00	1,02,000	1,81,96,800.00
		Advance Test	25,028	892	15,017	1,33,95,164.00	10,011	71,43,849.60
		Total	2,80,028		1,68,017	4,75,14,164.00	1,12,011	2,53,40,649.60
	Total 'A' (1 + 2)							7,28,54,813.60
B)	Total contract for 4 years							29,14,19,254.40
	• As per tender condition, for every increase in total samples per year than guaranteed samples per year the cost/reported sample shall decrease by 20%. Hence rate for basic test is Rs.178.40 and Advance test is Rs.713.60.							
	• As per tender condition, Guarantee of 60% of total samples test i.e. **1,68,017 nos.** per year has given to bidder. If the samples test mentioned for per year is not done, the payment of remaining samples test will be paid as per approved rates to **M/s. Thyrocare Technologies Limited.**							

7.Delibrations of Elected Representatives

Table 56: Ward-Wise Number of Questions asked on Health by Municipal Councillors in All Committees from 2017-18 to 2020-21

Ward	No. of Councillors	2017-18	2018-19	2019-20	2020-21
A	3	0	2	5	0
B	2	0	0	0	0
C	3	3	2	2	2
D	6	6	2	10	0
E	7	22	16	7	8
F/N	10	14	28	24	2
F/S	7	13	14	8	4
G/N	11	10	23	18	11
G/S	7	21	40	23	3
H/E	10	10	14	17	6
H/W	6	3	3	4	1
K/E	15	12	14	21	13
K/W	13	28	28	26	13
L	16	93	75	48	17
M/E	15	23	19	21	7
M/W	7	17	12	15	10
N	11	8	16	10	8
P/N	18	35	26	25	7
P/S	9	13	8	12	3
R/C	10	18	13	12	3
R/N	8	24	25	13	20
R/S	13	36	25	9	6
S	14	10	15	11	16
T	6	16	15	6	3
Total	**227**	**435**	**435**	**347**	**163**

Table 57: Questions asked on health issues by MLAs from Winter 2019 to Budget 2021

MLA Name	Constituency No.	Winter 2019	Budget 2020	Monsoon 2020	Winter 2020	Budget 2021	Winter 2019 to Budget 2021
Abu Asim Azmi	171	10	28	6	0	5	49
Ajay Vinayak Choudhari	183	0	4	2	0	1	7
Ameet Bhaskar Satam	165	1	30	7	4	7	49
Amin Amir Ali Patel	186	3	42	4	3	4	56
Ashish Babaji Shelar	177	2	36	17	9	15	79
Aslam Ramazan Ali Shaikh	162	5	0	0	0	0	5
Atul Dattatray Bhatkhalkar	160	3	28	7	1	11	50
Bharati Hemant Lavekar	164	0	20	5	1	5	31
Dilip Bhausaheb Lande	168	0	9	1	0	3	13
Kalidas Nilkanth Kolambkar	180	3	11	7	2	5	28
Mangal Prabhat Lodha	185	0	8	0	0	0	8
Mangesh Anant Kudalkar	174	1	7	0	0	3	11
Manisha Ashok Chaudhari	153	1	21	10	5	4	41
Mihir Chandrakant Kotecha	155	2	8	5	1	3	19
Parag Kishor Shah	170	0	5	8	5	5	23
Parag Madhusudan Alavani	167	5	21	11	5	8	50
Prakash Rajaram Surve	154	0	2	0	0	1	3
Prakash Vaikunth Phaterpekar	173	1	9	2	3	3	18
Rahul Suresh Narwekar	187	2	6	0	0	2	10
Ramchandra Shivaji Kadam	169	0	7	7	6	5	25
Ramesh Gajanan Korgaonkar	157	0	5	2	1	4	12
Ramesh Kondiram Latke	166	0	1	0	0	0	1
Ravindra Dattaram Waikar	158	1	2	1	0	1	5
Sadanand Shankar Sarvankar	181	0	8	1	0	3	12
Sanjay Govind Potnis	175	0	12	5	2	5	24
Selvan R Tamil	179	2	16	10	4	10	42
Sunil Dattatraya Rane	152	0	6	3	2	2	13
Sunil Rajaram Raut	156	0	7	2	2	3	14
Sunil Vaman Prabhu	159	7	21	14	0	5	47
Vidya Jayprakash Thakur	163	0	0	0	0	0	0
Yamini Yashwant Jadhav	184	3	18	7	1	4	33
Yogesh Amritlal Sagar	161	4	26	5	2	5	42
Zeeshan Ziauddin Siddique	176	1	3	0	0	0	4
Total		**57**	**427**	**149**	**59**	**132**	**824**

8. Health Conditions Screened under Rashtriya Bal Swasthya Karyakram (RBSK)

Health Conditions for Compulsory Screening	
Defects at Birth	**Deficiencies**
Neural tube defect	Anemia especially Severe anemia
Down's Syndrome	Vitamin A deficiency (Bitot spot)
Cleft Lip and Palate / Cleft palate alone	Vitamin D Deficiency, (Rickets)
Talipes (club foot)	Severe Acute Malnutrition
Developmental dysplasia of the hip	Goiter
Congenital cataract	
Congenital deafness	
Congenital heart diseases	
Retinopathy of Prematurity	
Diseases	**Developmental delays and Disabilities**
Skin conditions (Scabies, fungal infection and Eczema)	Vision Impairment
Otitis Media	Hearing Impairment
Rheumatic heart disease	Neuro-motor Impairment
Reactive airway disease	Motor delay
Dental conditions	Cognitive delay
Convulsive disorders	Language delay
	Behaviour disorder (Autism)
	Learning disorder
	Attention deficit hyperactivity disorder
Health Conditions for Optional Screening	
Deficiencies	
Congenital Hypothyroidism	
Sickle cell anemia	
Beta thalassemia	

9. Details of Immunisation Programmes

The Immunisation Programme in India was introduced in 1978 as the 'Expanded Programme of Immunisation' (EPI) by the Ministry of Health and Family Welfare, Government of India. In 1985, the programme was modified to the 'Universal Immunisation Programme' (UIP), which was to be implemented in phased manner to cover every district in the country by 1989-90. Despite being one of the largest healthcare programmes in the world, and being operational for many years, UIP was only able to fully immunize 65% children by the first year of their life.

To solve this problem and to achieve full immunization coverage for all children and pregnant women at a rapid pace, the Government of India launched Mission Indradhanush in December 2014. An intensification strategy, it was aimed at providing all the vaccines under the Universal Immunisation Programme and ensuring full immunization for children up to two years of age and pregnant women. Under this mission, focus was given to pockets of low immunization coverage and hard to reach areas where the proportion of unvaccinated and partially vaccinated children was highest. Mission Indradhanush provided an impetus to the UIP resulting in an annual increase of approximately 7% in full immunization coverage as compared to 1% annual increase in the past.

However, despite an increase in coverage of full immunization, the progress was not uniform in all districts and some areas (like urban slums) were not receiving adequate focus. To further intensify the immunization programme and accelerate full immunization coverage to over 90% by 2018, the Intensified Mission Indradhanush (IMI) was launched in 2017. IMI acts as a supplemental aggressive action plan to cover all left outs and drop outs in select districts and urban cities with low routine immunization coverage in a specific time-frame (December 2018)[73].

IMI 2.0 came into place in December 2019 and was scheduled to carry out 4 rounds of immunization till March 2020. Under the Universal Immunization Programme, as per the guidelines of GOI, Public Health Department MCGM, offers protection against 11 Vaccine Preventable Diseases, Polio, Hepatitis B,TB, Diphtheria, Pertussis, Tetanus, H- Influenza B, Measles, Rubella, Mumps, and Rotavirus induced diarrhoea[74].

[73] https://nhm.gov.in/New_Updates_2018/NHM_Components/Immunization/Guildelines_for_immunization/Mission_Indradhanush_Guidelines.pdf

[74] https://portal.mcgm.gov.in/irj/go/km/docs/documents/MCGM%20Department%20List/Public%20Health%20Department/Docs/Expanded%20Program%20of%20Immunization/INTENSIFIED%20MISSION%20INDRADHANUH%202.0%20English.pdf

10. Child Immunisation from 2017-18 to 2020-21

Table 58: Number of Children Administered Vaccines in Mumbai from 2018-19 to 2020-21

Vaccines	2018-19	2019-20	2020-21
Vitamin K1 (Birth Dose)	1,19,352	1,34,432	1,17,096
BCG	1,66,126	1,65,359	1,45,105
Pentavalent 1	1,68,488	1,74,405	1,59,926
Pentavalent 2	1,62,557	1,72,880	1,59,944
Pentavalent 3	1,68,127	1,78,586	1,69,590
OPV 0 (Birth Dose)	1,59,737	1,62,510	1,29,729
OPV1	1,67,847	1,74,522	1,59,934
OPV2	1,62,840	1,72,820	1,59,937
OPV3	1,67,836	1,77,978	1,69,487
Hepatitis-B0 (Birth Dose)	1,30,725	1,45,106	1,25,958
Inactivated Polio Vaccine 1 (IPV 1)	1,36,688	1,58,858	1,57,106
Inactivated Polio Vaccine 2 (IPV 2)	1,29,496	1,62,119	1,66,290
Rotavirus 1	0	99,878	1,56,582
Rotavirus 2	0	85,346	1,56,269
Rotavirus 3	0	78,756	1,65,560
Child immunisation (9-11months)			
Measles and Rubella (MR)- 1st Dose	31,385	1,81,346	1,69,409
Measles 1st dose	1,39,058	0	913
Children aged between 9 and 11 months fully immunized- Male	86,470	93,164	86,109
Children aged between 9 and 11 months fully immunized - Female	82,472	87,863	82,530
Child immunisation - Measles and Rubella (MR)- 1st Dose	3,492	2,544	4,150
Child immunisation - Measles-1st dose	2,498	0	238
2nd doses and booster injections			
Measles and Rubella (MR)- 2nd Dose (16-24 months)	466	125	662
Measles 2nd dose (More than 16 months)	416	0	183
DPT 1st Booster	1,64,567	1,77,604	1,69,830
OPV Booster	1,64,264	1,77,450	1,69,609
Measles, Mumps, Rubella (MMR) Vaccine	1,44,647	1,76,039	1,70,158
Typhoid	0	1,139	185
Children between 5-16 years			
Children more than 5 years received DPT5 (2nd Booster)	1,50,529	1,66,402	1,59,044
Children more than 10 years received TT10	1,76,916	1,76,313	1,65,196
Children more than 16 years received TT16	1,88,216	1,60,700	1,49,925
Immunisation sessions			
Immunisation sessions planned	44,592	44,649	36,873
Immunisation sessions held	44,328	44,419	36,318
Number of Immunisation sessions where ASHAs were present	35,139	36,645	30,346

11. RTI reply received by MCGM for details related to the School Health Scheme for 2020-21

RIGHT TO INFORMATION

बृहन्मुंबई महानगरपालिका
शालेय आरोग्य विभाग
एचओ/771/एसएचडी. दि. / /2021

प्रेषक –
जन महिती अधिकारी,
सहाय्यक आरोग्य अधिकारी (शा.आ.वि.) .
जी/उत्तर विभाग

प्रति,
श्री. एकनाथ पवार,
प्रजा फाउंडेशन, बी-18, श्री राम इंडस्ट्रिअल इस्टेट,
13, जी.डी. आंबेडकर मार्ग, वडाळा उदयोग भवन जवळ,
वडाळा, मुंबई – 400 031.

विषय- माहितीचा अधिकार अधिनियम 2005 अन्वये माहिती आपला दि.07/06/2021 रोजीचा अर्ज.
संदर्भ- दिनांक 08/07/2021 रोजी प्राप्त झालेल्या माहिती अधिकाराचा अर्ज.

आपला संदर्भाधीन माहिती अधिकार अधिनियम 2005 अंतर्गत अर्ज दिनांक 08/07/2021 रोजी सहाय्यक आरोग्य अधिकारी (शा.आ.वि) या विभागात प्राप्त झाला.

सदर अर्जानुसार विचारणा करण्यात आलेली माहिती खालील प्रमाणे

अ.क्र.	प्रश्न	उत्तर
1	Please provide the annual statement showing the Number of various Parameters Standard wise and Ward wise (year 2020-21).	निरंक

आपला माहितीचा अधिकार 2005 अंतर्गत केलेला वरील अर्ज निकालात निघतो.

जन माहिती अधिकारी
सहाय्यक आरोग्य अधिकारी (शा.आ.वि.)

12. Major Types of Contraceptive Methods

Intrauterine Contraceptive Devices (IUCDs):
A small flexible, plastic device, usually with copper, is inserted into the womb by a qualified medical practitioner, after menstruation, abortion, or 4-6 weeks after delivery. It prevents the fertilized egg from settling in the womb. Copper ions have spermicidal activity. It is 95–98% effective, does not interfere with intercourse and can be removed when pregnancy is desired. It may cause heavy bleeding in some women. Pelvic inflammation in women, especially those exposed to STDs, may occur. Sometimes the IUD loosens and detaches and hence should be checked periodically. It may increase risk of ectopic pregnancy. It is unsuitable for women with cervical or pelvic infection, uterine fibroids, heavy menstruation, or unexplained vaginal bleeding. Two popular contraceptive devices used are *CuIUCD 380A(10 Years) and CuIUCD 375(5 years).*

Injectable Contraceptive-MPA (Under Antara Programme):
It is a hormonal contraceptive method for women that prevent pregnancy for three months. It prevents monthly ovulation, thickens cervical mucus thus blocking sperms from meeting eggs and makes implantation of fertilized eggs difficult. It needs to be administered every 3 months. It can easily be administered in the arms, thighs or buttocks. The date of subsequent dose may be remembered from the MPA card provided. It is a long-term effective, reversible method of contraception, suitable for breastfeeding women (after 6 weeks of childbirth) and does not require daily attention.

Chaya (Centchroman):
Chhaya is a non-hormonal, non-steroidal, once a week contraceptive pill. Chhaya prevents implantation of fertilized egg in the uterus. For the first three months two pills are to be taken every week. From 4th month one pill has to be taken every week. The first pill can be taken on the first day of the menstrual cycle or any other day provided pregnancy has been ruled out. Chhaya is an effective reversible method of contraception. It is safe for women of all age groups and breastfeeding women, even immediately after childbirth. Return to fertility on stopping the pills is also prompt.

ECP (Emergency contraceptive pill):
This Method of Contraception that is used within 72 hours of unprotected intercourse to prevent pregnancy also called "Morning after" or post-coital contraception. The Government of India guidelines for Emergency Contraception recommend use of Levonorgestrel (progestogen only) NG 0.75 mg as a "dedicated product" for effective emergency contraception. The Drug Controller of India has approved only Levonorgestrel for use as ECP. It prevents pregnancy by inhibiting or delaying ovulation, altering the survival mucosa, altering the endometrial leading to impair endometrial receptivity to implantation of fertilizing egg. Any woman can use emergency oral contraception if she is not already pregnant. The ECPs should be taken as soon as possible after unprotected intercourse. Only one tab of 1.5 mg or two tabs of 0.75 mg stat should be taken within 72 hours after intercourse.

Male Sterilisation (Vasectomy):
A permanent surgical method in which the vasa deferentia which carry the sperms from the testes to the penis, are blocked. This prevents the sperms from being released into the semen at the time of ejaculation. It is a simple and reliable method not requiring hospitalization. Contrary to popular belief, it does not affect health; neither does it interfere with intercourse.

Female Sterilisation (Tubectomy):

Tubal ligation or tubectomy is a surgical procedure for female sterilization in which the fallopian tubes are permanently blocked or removed. This prevents the fertilization of eggs by sperm and thus the implantation of a fertilized egg. Tubal ligation is considered a permanent method of sterilization and birth control. Tubectomy is however likely to have more risks and complications as compared to vasectomy.

13. Criteria for Ayushman Bharat-Pradhan Mantri Jan Aarogya Yojana

Exclusions of Medication: Out- patient care, Individual diagnostics (for evaluation), Drug rehabilitation program, Cosmetic related procedures, Fertility related procedures, Transplants involving organs etc.

Beneficiary Inclusions: In Urban areas include occupational criteria such as Rag pickers, Beggars, Domestic workers, Street vendors, Cobbler, hawkers, Construction workers, Plumbers, Masons, Painters, Welders, Sweepers Sanitation workers, Mali, Home-based workers, Artisans, Handicrafts workers, Tailors, Transport workers, Drivers, Conductors, Helpers, Rickshaw pullers, Shop workers, Assistants, Peons, Attendants, Waiters, Electricians, Mechanics, Assemblers, Repair workers, Washer-men, Chowkidar. All eligible families are identified with valid Yellow, Orange, Antyodaya, and Annapurna ration card (irrespective of date of issue of Ration Card or the inclusion of the beneficiary's name therein) coupled with any Photo ID proof.

14. Note on MCGMs Public Health Committee

a) The Corporation under Section 38A (1) of the M.M.C. (Mumbai Municipal Corporation) Act, appoints the Public Health Committee out of its own body consisting of 36 members in their meeting after general elections and delegate any of their power and duties to such Committee and also define the sphere of business of Committee so appointed and direct that all matters and questions included in any such sphere shall be submitted to the Corporation with such Committee's recommendation.

b) Sphere of Business

Sphere of Business of Special Committees defined by the Corporation vide Corporation Resolution No.46, dated 11th May 1999 in exercise of the powers vested in them by Sub-Section (1) of Section 38A of the Mumbai Municipal Corporation Act, 1888, as amended up to date.

b. i) All questions relating to the King Edward VII Memorial Hospital and Seth Gordhandas Sunderdas Medical College, Kasturba Hospital for infectious diseases, Medical Relief in the Municipal outdoor dispensaries, Medical and Nursing assistance to the poor in their homes, Venereal Diseases Dispensaries, Anti Tuberculosis League and any Medical Institution to which monetary assistance is given by the Corporation.

b. ii) Health Department (including Street Cleaning, Conservancy, etc.) with the exception of questions pertaining to the Mechanical Branch so far as they fall within the province of the Works Committee.

At present, there are 36 members in the Public Health Committee.

15. Survey Methodology and Socio Economic Classification (SEC) Note

Survey Methodology

Praja Foundation had commissioned the **household survey** to Hansa Research and the survey methodology followed is as below:

- In order to meet the desired objectives of the study, we represented the city by covering a sample from each of its 24 administrative wards. The target Group for the study was:
  - ✓ Both Males and Females
  - ✓ 18 years and above
  - ✓ Across all Socio-economic classes
- Sample quotas were set for representing gender and age groups on the basis of their split available through Indian Readership Study (Large scale baseline study conducted nationally by Media Research Users Council (MRUC) for Mumbai Municipal Corporation Region.
- The required information was collected through face to face interviews with the help of structured questionnaire.
- In order to select a random sample of respondents within a ward, following sampling process was followed:
  - ✓ 6 prominent areas in the ward were identified as the starting point
  - ✓ In each starting point about 6 individuals were selected randomly and the questionnaire was administered with them
  - ✓ A random contact pattern was maintained separately for the different socio-economic classes
  - ✓ The sample in the ward was divided equitably between SEC A, B, C and DE
- Once the survey was completed, sample composition of age and gender was corrected to match the population profile using the baseline data from IRS. This helped us to make the survey findings more representative in nature and ensured complete coverage.

The total study sample was 769.

Socio Economic Classification (SEC) Note

SEC is used to measure the affluence level of the sample, and to differentiate people on this basis and study their behaviour / attitude on other variables.

While income (either monthly household or personal income) appears to be an obvious choice for such a purpose, it comes with some limitations:

- Respondents are not always comfortable revealing sensitive information such as income.
- The response to the income question can be either over-claimed (when posturing for an interview) or under-claimed (to avoid attention). Since there is no way to know which of these it is and the extent of over-claim or under-claim, income has a poor ability to discriminate people within a sample.
- Moreover, affluence may well be a function of the attitude a person has towards consumption rather than his (or his household's) absolute income level.

Attitude to consumption is empirically proven to be well defined by the education level of the Chief Wage Earner (CWE*) of the household as well as his occupation. The more educated the CWE, the higher is the likely affluence level of the household. Similarly, depending on the occupation that the CWE is engaged in, the affluence level of the household is likely to differ – so a skilled worker will be lower down on the affluence hierarchy as compared to a CWE who is businessman.

Socio Economic Classification or SEC is thus a way of classifying households into groups' basis the education and occupation of the CWE. The classification runs from A1 on the uppermost end thru E2 at the lower most end of the affluence hierarchy. The SEC grid used for classification in market research studies is given below:

EDUCATION / **OCCUPATION**		Illiterate	literate but no formal schooling / School up to 4th	School 5th – 9th	SSC/ HSC	Some College but not Grad	Grad/ Post-Grad Gen.	Grad/ Post-Grad Prof.
Unskilled Workers		E2	E2	E1	D	D	D	D
Skilled Workers		E2	E1	D	C	C	B2	B2
Petty Traders		E2	D	D	C	C	B2	B2
Shop Owners		D	D	C	B2	B1	A2	A2
Businessmen/ Industrialists with no. of employees	None	D	C	B2	B1	A2	A2	A1
	1 – 9	C	B2	B2	B1	A2	A1	A1
	10 +	B1	B1	A2	A2	A1	A1	A1
Self-employed Professional		D	D	D	B2	B1	A2	A1
Clerical / Salesman		D	D	D	C	B2	B1	B1
Supervisory level		D	D	C	C	B2	B1	A2
Officers/ Executives Junior		C	C	C	B2	B1	A2	A2
Officers/Executives Middle/ Senior		B1	B1	B1	B1	A2	A1	A1

**CWE is defined as the person who takes the main responsibility of the household expense.*