Report on

The STATE of HEALTH in MUMBAI

September 2019

Table of Contents

I. Foreword

Providing primary health care is an obligatory duty of the corporation of Mumbai as per the Mumbai Municipal Corporation Act.

A strong primary health care system is important since it provides a locality based holistic preventive, promotive and curative health service. It acts as the first level of healthcare, reducing out-patient pressure on hospitals and enabling a strong locality based health infrastructure and surveillance mechanism.

Government OPD patient numbers for Mumbai in 2018 show that 76% of the total OPD patients went to government hospitals while only 24% went to dispensaries. Why did people in Mumbai city access hospitals instead of dispensaries for basic healthcare services?

A look at the primary health care in the city, undertaken through public dispensaries shows that there is only one public dispensary per 64,468 people. The National Urban Health Mission prescribes for one public dispensary per 15,000 population, however none of the administrative wards in Mumbai meet this requirement. In fact, in 4 wards (K/W, P/S, R/N and T) there is only one dispensary for more than one lakh population. This reflects a poor availability of primary health care closest to the citizen.

Similarly, if we look at the MCGM's budgetary expenditure, **74% of the health budget's revenue expenditure in 2017-18 was spent on hospitals while only 26% was on dispensaries.**

As of 2018 in Mumbai's government health facilities, there are 74 medical, para-medical and nursing personnels per one lakh population, while the target to be achieved by 2030, is 550 government physicians, nurses and midwives per one lakh population as adopted by India under UNDP's Sustainable Development Goals (SDG).

In terms of human resources **in municipal dispensaries, available personnel on an average are only one medical staff per dispensary**. There is also a gap in available personnel to sanctioned posts in municipal dispensaries (19% shortage) and hospitals (26% shortage) in 2018. It is thus clear from the budgetary and human resource allocations that dispensaries are not being prioritised by the government.

In terms of accessibility as well, municipal dispensaries function from 9am to 4pm (with one-hour lunch break) making it unfeasible for majority of the working population to access primary health care in their locality.

The lacunae in the public primary health care in the city, reflects in our annual household survey of 20,187 households where almost half (49%) of the respondents, use private health care facilities.

Further, although the government has been moving from a supply side provision (subsidising health facilities) to demand side provision (subsidising expenditure on health through insurance), 73% of surveyed households did not have a health insurance. Of those who had an insurance, only 25% had a public insurance. **Of government health insurance schemes such as Ayushman Bharat and Rashtriya Swasthya Bima Yojana, only 27% respondents in our household survey were aware of any government scheme.**

The citizens of Mumbai are consequently spending higher percentage of their income on health, an increase from 7.8% in 2017 to 9.7% in 2019. A calculation of total expenditure on health from per capita income shows

a drastic increase in overall spending of the city, from Rs. 19,209 crores in 2017 to Rs. 27,795 crores in 2019 (a 45% rise in two years).

The current situation echoes the need for improvement in the three pillars of affordability, accessibility and availability of quality health care services in the city. Hospitals form an important part of the healthcare system, however hospitals are sought to provide secondary and tertiary health services. A huge burden of primary healthcare on hospitals compromises on their ability to provide effective secondary care.

It is therefore important that **for all basic health needs-preventive and primary, the point of access should be the dispensary**, which is made available at the level of the citizens' locality with improved timings (such as from 8am to 10pm) to make it more accessible to the public.

There is a dire need to increase the number of personnel in government facilities, to ensure effective delivery of health services. This can be done by not only **allocating more than one general doctor per dispensary but also having visiting specialist doctors**, so that not just for common fever but also for ENT, dental problems, mental health, and so on patients can visit their nearest dispensary. For this, all the dispensaries need to be similarly upgraded with the required equipment. Schemes such as 'Aapli Chikitsa' which aimed to provide diagnostic services such as blood tests at the dispensary level need to be strengthened. This in turn means that the government needs to focus on more budgetary allocation and spending for dispensaries.

This will ensure affordable care and high accessibility so that the dispensary is the first point of contact for a person with any health issue. Along with provision of health care services, it is also important to have proper monitoring and timely maintenance of health data to ensure a strong disease surveillance mechanism.

Nitai Mehta

Managing Trustee, Praja Foundation

II. Acknowledgements

Praja has obtained the data used in compiling this white paper through 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 this information diligently.

We would like to appreciate our stakeholders; particularly, our Elected Representatives & government officials, the Civil Society Organizations (CSOs) and the journalists who utilize and publicize 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 European Union Fund, Friedrich Naumann Foundation, Narotam Sekhsaria Foundation and Madhu Mehta Foundation and numerous other individual supporters. Their support has made it possible for us to conduct our study & publish this white paper.

We would like to thank Hansa Cequity team for helping us with extrapolating the cause of death data and the team at Hansa Research for the citizen survey.

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

Note: The contents of this publication are published by Praja Foundation and in no way can be taken to reflect the views of the European Union and other donors and sponsors.

FRIEDRICH NAUMANN FOUNDATION For Freedom.
South Asia

Narotam Sekhsaria Foundation

III. Sources of Data

A. RTI data

In the sections given below, we have analysed data of diseases and ailments from January 2014 to December 2018 from Municipal/Government hospitals and dispensaries. Through this data, we have attempted to assess the performance of health services provided at various levels of government using government's own data. We have collected this information through the Right to Information Act (RTI), 2005.

i. Occurrences of diseases and ailments in municipal dispensaries and government hospitals

We received data from (181) municipal dispensaries, (26) municipal hospitals and (5) state hospitals from January 2014 to December 2018. Also, RTI data was obtained from (9) other government hospitals [which include Central Railway, Bombay Port Trust Hospital, Western Railway Hospital, Police Hospital (Nagpada and Naigaon), ESIS – Worli, Mulund, Kandivali, Marol)] and (12) Police Dispensaries from January 2014 to December 2018. Kindly refer to Annexure 1 for the list of Hospitals and dispensaries. This data relates to Out-Patient Department (OPD) of dispensaries and In-Patient Department (IPD) of hospitals of MCGM.

It must be noted that the data collected through RTI includes only government dispensaries/hospitals and does not include data on occurrences of various diseases/ailments treated in private and charitable dispensaries/hospitals. The data on cases of diseases/ailments treated in private and charitable dispensaries/hospitals is not available under RTI. Hence, we have conducted the survey to estimate certain parameters to monitor status of health of Mumbai.

Note: For Tuberculosis, Diarrhoea, Cholera, Typhoid, Dengue data for the period Aug 2017 – Nov 2017 and Dec 2017 – Mar 2018 was not provided by three wards (M/W, N & P/N). All these wards are in State Appeal.

ii. Tuberculosis and HIV/AIDS

Data on number of TB cases registered in government and private dispensaries and hospitals is obtained from Tuberculosis Cell Mumbai. The data also includes number of Defaulter cases from Directly Observed Treatment-Short Course (DOTS) programme. Similarly, HIV/AIDS registered cases and deaths in government and private dispensaries and hospitals are taken from Mumbai District Aids Control Society(MDACS).

iii. Reproductive Health and Key Indicators- HMIS:

This year we have added new data points concerning reproductive health and key mortality indicators taken from Health Management Information system published on MCGM's website[1]. Key mortality indicators are inclusive of mortality rates and numbers of mother and children in all healthcare (public and private) facilities in Mumbai. Within reproductive health we have focussed on sterilisations done and contraceptives most adopted among females and males in Mumbai from 2014-2015 to 2017-18. (Data is available in HMIS according to financial year)

[1] HMIS data published on MCGM's website: https://portal.mcgm.gov.in/irj/go/km/docs/documents/MCGM%20Department%20List/Public%20Health%20Department/Docs/MIS%20Cell/Monthly%20Progress%20Report%20MIES%20MUMBAI%20District%20Apr-2014%20to%20March%202015.pdf

iv. Causes of death

Data on cause of death is crucial to understand the extent to which various diseases pose a threat to public health. It can help set the policy agenda for the government in terms of identifying the diseases which need urgent attention and fix gaps in the public health delivery mechanism. Data for cause of death under the Registration of Births and Deaths Act, 1969 is to be available with the sub-registrar which in MCGM is the Medical Officer of Health(MOH) in every ward. Data from January 2014 to December 2015 is received through RTI from MCGM. However, from January 2016, the registration of deaths was centralised to a central government software as the central registration system for birth and deaths. In spite of RTIs to local, state and central agencies data for causes of death in Mumbai was not provided to Praja. (Refer to section on Cause of Death and Annexure 11 for details). Data for 2016 and 2017 cause of death was finally received in July 2019 after an appeal at the State Government level, data from January 2016 to December 2017 is thus received from State (HIVS, Pune). The causes of death data upto December 2015 was received ward wise from the MCGM while the 2016 and 2017 data received from the state is consolidated for the entire city.

v. Population

Population used to compare number of diseases per population is taken from Census 2011.

vi. Deliberations by councillors and MLAs

This section comprises of deliberations by elected representatives in Mumbai. Data in this section has been collected through the Right to Information (RTI), Act 2005. The information includes issues raised by MLAs in the Monsoon session 2017, Winter session 2017, Budget session 2018, Monsoon session 2018 and Winter session 2018; while the issues raised by councillors are from Public Health Committee meetings held between April 2018 and March 2019. Issues raised by councillors in Statutory and Special Committees meetings have also been taken. We have incorporated attendance of councillors from public health committee (refer annexure 8) meetings from March 2017 to March 2019.

B. Citizen Survey

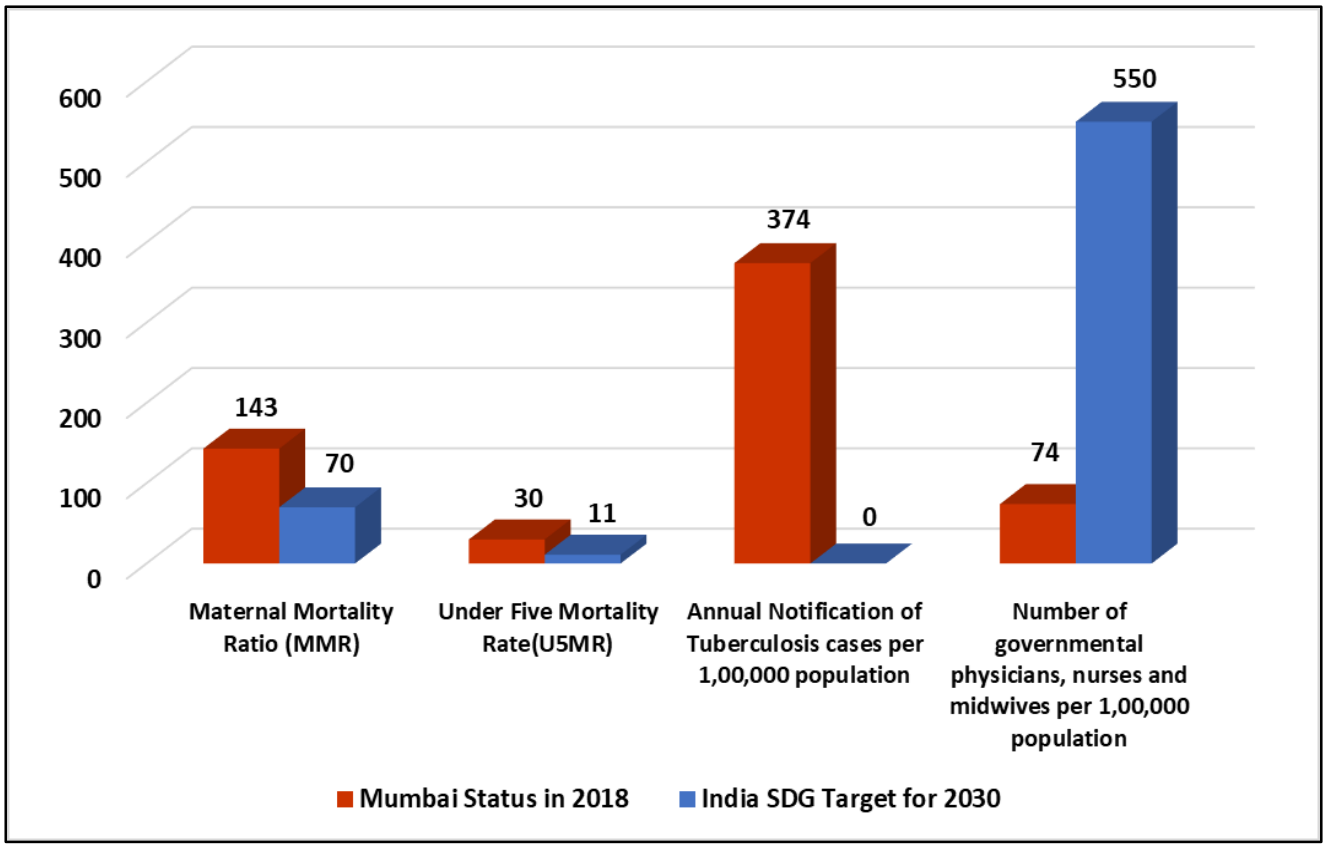
In this section, we are presenting a household survey mapping diseases and ailments as well as perception and use of various health services. Data from the citizen survey is collected across 20,187 households in all 24 wards from different socio-economic classification. For more details, refer Annexure 4.

IV. Sustainable Development Goals Health Targets and Status in Mumbai

The Sustainable Development Goals (SDGs), otherwise known as the Global Goals, are a universal call to action to end poverty, protect the planet and ensure that all people enjoy peace and prosperity.

These 17 Goals build on the successes of the Millennium Development Goals, while including new areas such as climate change, economic inequality, innovation, sustainable consumption, peace and justice, among other priorities. The goals are interconnected – often the key to success on one will involve tackling issues more commonly associated with another. Goal 3 deals with Good Health and Well Being with various disease and health facility related indicators. Under the SDG India Index -Baseline Report 2018, national indicators under Goal 3 adopted by India, their respective targets, compared to the current status in Mumbai are as follows.

Figure 1: Sustainable Development Goals (SDG) targets compared to current status in Mumbai



We will henceforth be tracking the performance of Mumbai in comparison to SDG health targets.

Note: MMR and U5MR is got from MCGM's online HMIS data, while TB cases per population is calculated based on Notified TB cases of public and private facilities as per Nikshay provided by Mumbai TB cell, number of governmental physicians and nurses calculated based on available medical and nursing staff in all government hospitals and dispensaries in Mumbai, collected from RTI.

V. Cause of Death

Cause of death is an essential and basic data which is important for making and monitoring of any public health policy and is the mandate of the Municipal Corporation under Registration of Births and Death Act, 1969 (Refer Annexure 2).

- 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, 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, whereby **registration of births and deaths was centralised.**
- After this, the MCGM claimed that they **did not have access to the CRS software** for cause of death. (Refer to Annexure 3). 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.
- Since the central government which managed the software also did not give us the data, we filed an **appeal at the Central Information Commission** (CIC), which directed the CRS department to prepare guidelines that clarify on whether states should maintain records and also work on revamping the software to provide city/district/ward 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.**
- However, in spite of repeated follow-ups of the CIC order, the data was not made available.
- Finally, **after three years** in July 2019, in an appeal of the state government causes of death data for 2016 and 2017, which was compiled by MCGM separately for reporting to the state was provided to Praja. (For detailed timeline, please refer to Annexure 11)

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 difficulty faced by MCGM in monitoring the cause of death for the last three years.

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.**

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 also revamp its CRS software to provide access of district and ward wise data of cause of death to the state and local governments and to the public.**

Cause of death data of various diseases which we received through RTI over the last few years have been shown in tables below. For diseases like HIV, we received death numbers separately from Mumbai District Aids Control Society as well which are shown separately.

Table 1: Causes of death in Mumbai for sensitive diseases from 2014 to 2018

Cause of Death	2014		2015		2016		2017		2018	
	No. of Deaths	In %	No. of Deaths	In %	No. of Deaths	In %	No. of Deaths	In %	No. of Deaths	In %
Malaria (B50 TO B54)	112	0.1	92	0.1	125	0.1	100	0.1	**Data not provided through RTI.**	
Dengue (A90)	104	0.1	129	0.2	7	0.0	348	0.4		
Tuberculosis (A-15,16,17,18,19)	6,589	7.4	5,693	6.9	6,660	7.3	5,449	6.1		
Diarrhoea (A09)	262	0.3	169	0.2	340	0.4	225	0.3		
Cholera (A00)	1	0.0	5	0.0	1	0.0	0	0.0		
Typhoid (A01)	3	0.0	8	0.0	8	0.0	8	0.0		
Diabetes (E10-E14)	2,428	2.7	2,544	3.1	9,088	9.9	9,525	10.7		
Hypertension (I10-I15)	5,030	5.6	4,486	5.5	3,557	3.9	3,693	4.2		
HIV / AIDS	379	0.4	346	0.4	852	0.9	881	1.0		
Other Cause of deaths	74,663	83.4	68,497	83.6	70,857	77.4	68,608	77.2		
Total Deaths	**89,571**	**100**	**81,969**	**100**	**91,495**	**100**	**88,837**	**100**		

Inference:

- 6.1% of total deaths in 2017 were due to tuberculosis while 10.7% were due to diabetes.
- The number of diabetes deaths reported has increased drastically from 2,544 in 2015 to 9,088 in 2016 and 9,525 in 2017, after the reporting shifted from SAP to CRS in 2016.
- The 2018 data compiled separately by MCGM is still under process, while the CRS has not provided access to this data district wise, as of now.

Table 2: Top 10 causes of death in Mumbai 2016 & 2017 by Age

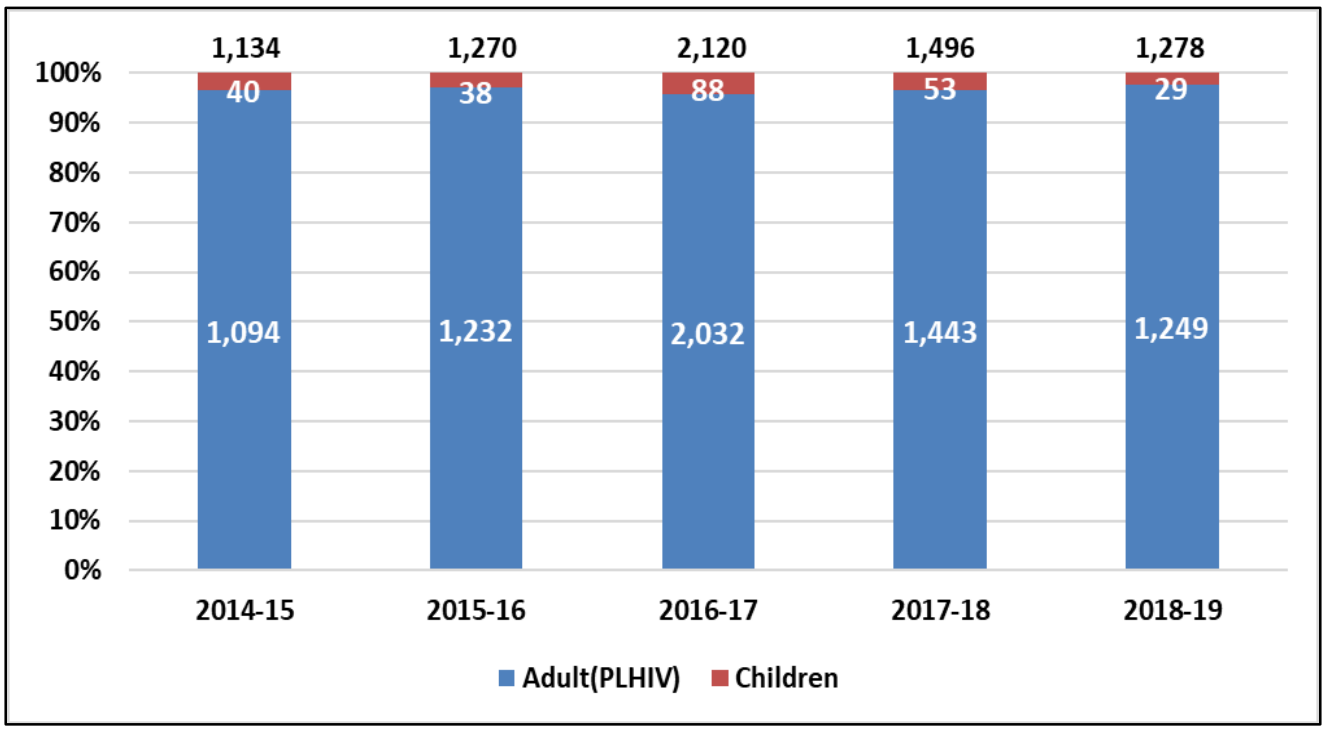
CAUSES OF DEATH	Years	0-4 Years	5-19 Years	20-39 Years	40-59 Years	60 and Above Years	Total Deaths	In %
Diabetes mellitus (E10-E14)	**2016**	3	6	96	1,772	7,211	9,088	10%
	2017	5	11	112	1,884	7,513	9,525	11%
Acute myocardial infarction (I21-I22)	**2016**	3	7	387	1,864	6,448	8,709	10%
	2017	0	3	241	1,621	6,193	8,058	9%
All other ischaemic heart diseases (I20 & I23-I25)	**2016**	2	7	179	1,324	4,681	6,193	7%
	2017	0	1	128	1,251	4,677	6,057	7%
Tuberculosis (A15-A19)	**2016**	56	428	2,051	2,251	1,874	6,660	7%
	2017	57	380	1,673	1,881	1,458	5,449	6%
Cerebrovascular diseases (I60-I69)	**2016**	28	34	312	1,207	2,910	4,491	5%
	2017	14	26	264	1,086	3,005	4,395	5%
Event of Undetermined Intent (Y10-Y34)	**2016**	68	371	1,687	927	553	3,606	4%
	2017	100	418	1,678	884	825	3,905	4%
Hypertension (I10-I15)	**2016**	2	9	124	540	2,882	3,557	4%
	2017	4	6	97	585	3,001	3,693	4%
Diseases of the Liver (K70-K76)	**2016**	34	35	658	1,577	868	3,172	3%
	2017	32	40	582	1,532	891	3,077	3%
Other injuries of Specified, Unspecified and Multiple Body Regions[2]	**2016**	55	256	1,194	774	550	2,829	3%
	2017	46	238	1,024	636	448	2,392	3%
Other Lower Respiratory Disorders (J22, J44 & J47)	**2016**	46	11	44	376	2,344	2,821	3%
	2017	24	14	45	354	2,399	2,836	3%
Others	**2016**	4,657	1,644	5,372	8,694	20,002	40,369	44%
	2017	4,525	1,645	4,997	8,847	19,436	39,450	44%
Total	**2016**	**4,954**	**2,808**	**12,104**	**21,306**	**50,323**	**91,495**	**100%**
	2017	**4,807**	**2,782**	**10,841**	**20,561**	**49,846**	**88,837**	**100%**

Inference:

- Highest causes of death in 2016 and 2017 is the same in Mumbai city- diabetes followed by Acute myocardial infarction (heart attack), other heart diseases and Tuberculosis.
- 11% of total deaths in 2017 were due to diabetes while 9% deaths were due to heart attacks.

[2] ICD Code (S00-S01, S05, S09-S11, S15-S16, S19- S21, S25, S29, S31, S35, S39-S41, S45-S46, S49-S51, S55-S56, S59-S61, S65-S66, S69-S71, S75-S76, S79-S81, S85-S86, S89-S91, S95-S96, S99, T00, T01, T06-T07, T09, T11 & T13-T14)

Figure 2: Deaths due to HIV/AIDS[3] in Mumbai from 2014-15 to 2018-19



Inference:

Number of deaths of HIV patients reported according to Mumbai District Aids Control Society, total 1,278 deaths were reported in 2018-19 out of which 29 were child deaths.

[3] Data on HIV/AIDS is obtained from Mumbai District Aids Control Society. The HIV/AIDS death number is inclusive of both public and private facilities.

VI. Registered Diseases/Ailments in Govt. Hospitals and Dispensaries in Mumbai

A. Communicable Diseases[4]

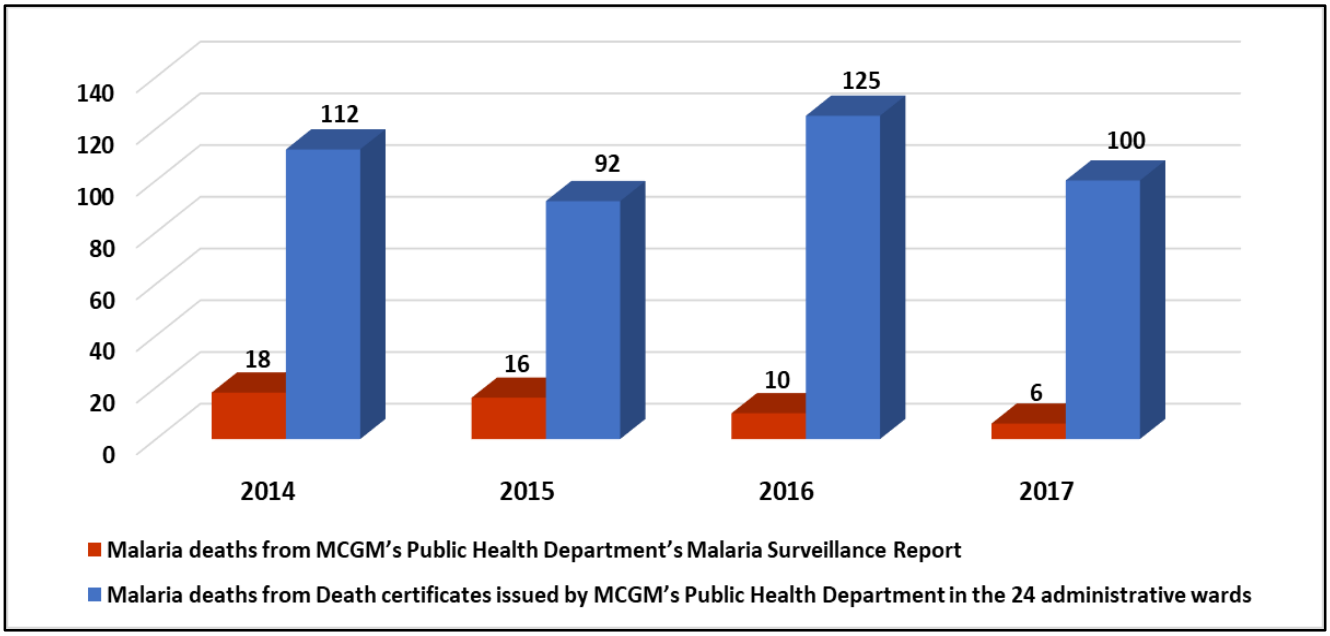
Table 3: Malaria number of cases registered in government dispensaries and hospitals in Mumbai from Jan 2014 to Dec 2018

Years	2014	2015	2016	2017	2018
Number of Malaria Cases in government dispensaries/hospitals in Mumbai					
MCGM dispensaries/hospitals	14,213	12,979	9,799	9,752	9,892
State hospitals	861	1,179	1,309	927	1,347
Other government dispensaries/hospitals	1,043	819	719	641	560
Total Cases	**16,117**	**14,977**	**11,827**	**11,320**	**11,799**
Population /Total Cases	772	831	1,052	1,099	1,055
Number of Deaths due to Malaria in Mumbai					
Total Deaths	**112**	**92**	**125**	**100**	*[5]
Total Cases/Total Deaths	144	163	95	113	

Inference:

Number of cases of malaria reported in government hospitals and dispensaries has fallen by 27% from 2014 to 2018.

Figure 3: Discrepancy in reporting system of Malaria death from 2014 to 2017



Inference:

There is a discrepancy in the number of malaria deaths reported by two different agencies of the MCGM. For example, the malaria surveillance department stated only 6 deaths for 2017 while based on death certificates issued by MCGM's Health Department there were 100 deaths in 2017.

[4] Communicable diseases are infectious diseases transmissible (as from person to person) by direct contact with an affected individual or the individual's discharges or by indirect means (as by a vector).

[5] (*) In all cases for 2018 the cause of death is not yet available through the MCGM.

Table 4: Dengue number of cases registered in government dispensaries and hospitals in Mumbai from Jan 2014 to Dec 2018[6]

Years	2014	2015	2016	2017	2018
Number of Dengue Cases in government dispensaries/hospitals in Mumbai					
MCGM dispensaries/hospitals	8,498	12,963	13,980	12,008	17,011
State hospitals	1,515	1,788	2,541	1,674	1,471
Other government dispensaries/hospitals	408	590	1,002	903	1,034
Total Cases	**10,421**	**15,341**	**17,523**	**14,585**	**19,516**
Population /Total Cases	1,194	811	710	853	638
Number of Deaths due to Dengue in Mumbai					
Total Deaths	**104**	**129**	**7**	**348**	*[7]
Total Cases/Total Deaths	100	119	2,503	42	

Inference:

Although number of cases of malaria has fallen, dengue cases reported in government hospitals and dispensaries has increased by 87% from 2014 to 2018 and number of deaths have also increased by 235% from 2014 to 2017. Correspondingly complaints[8] regarding pest control have also increased by 33% in last five years (2014-2018).

[6] 11 dispensaries and 2 hospitals have given 'suspected' cases in their data pertaining to Dengue.

[7] (*) In all cases for 2018 the cause of death is not yet available through the MCGM.

[8] Refer to Mumbai Civic White Paper 2019.

Table 5: Discrepancy in Positive Dengue Cases in 2018

Ward	New Diagnosed Dengue cases as per RTI[9]			Dengue cases as per Rapid Kit RTI[10]			Dengue cases as per EPID Cell RTI[11]		
	Positive Cases	Suspected Cases	Total	Rapid kit Positive	Rapid Kit Suspected Cases	Total	Positive Cases Public Hospitals	Positive Cases Private Facility	Total
A	19		19	1	19	20	2	33	35
B	27		27	30		30	13	11	24
C	52		52	35		35	44	35	79
D	0	25	25	1	23	24	35	200	235
E	0	11	11	0	15	15	121	71	192
F/N	49		49	78		78	139	40	179
F/S	3	4	7	7		7	58	107	165
G/N	26		26	33	229	262	126	48	174
G/S	46		46	118		118	117	92	209
H/E	59		59	11	74	85	64	39	103
H/W	30		30	49		49	43	88	131
K/E	205		205	218		218	12	98	110
K/W	0		0	79		79	7	102	109
L	19		19	0	97	97	45	95	140
M/E	23		23	33		33	57	12	69
M/W	6		6	0	3	3	22	25	47
N	56	1	57	75		75	15	87	102
P/N	62		62	0	62	62	11	29	40
P/S	0		0	0		0	6	38	44
R/C	33		33	21		21	4	27	31
R/N	154		154	0		0	2	5	7
R/S	102		102	74		74	3	27	30
S	66	49	115	0	168	168	18	208	226
T	5	21	26	26		26	14	39	53
Total Dispensaries	**1,042**	**111**	**1,153**	**889**	**690**	**1,579**			
Municipal Hospital	11,985	2,727	14,712						
State Hospital	1,471		1,471						
Other Government Hospital	966		966						
Total	**15,464**	**2,838**	**18,302**	**889**	**690**	**1,579**	**978**	**1,556**	**2,534**

Inference:

- 9 out of 24 wards provided dengue cases as suspected even after administering the rapid kid test. 44% of cases (690 out of 1,579) were suspected dengue after rapid kit test in municipal dispensaries in 2018.
- The confirmed positive cases received from public hospitals was 978 in 2018.

[9] Number of new diagnosed suspected and positive dengue cases received from government dispensaries and hospitals by RTI to all 24 wards and 39 government hospitals.

[10] Number of suspected and positive dengue cases as per Rapid Kit Tests done in dispensaries by RTI to all 24 wards.

[11] Number of positive dengue cases from Public sector hospitals and Private healthcare facilities by RTI to Epidemiology Cell (EPID cell), MCGM.

Table 6: Diarrhoea number of cases registered in government dispensaries and hospitals in Mumbai from Jan 2014 to Dec 2018

Years	2014	2015	2016	2017	2018
Number of Diarrhoea Cases in government dispensaries/hospitals in Mumbai					
MCGM dispensaries/hospitals	1,15,845	1,15,075	1,01,214	92,271	95,535
State hospitals	1,158	1,325	1,691	1,985	2,064
Other government dispensaries/hospitals	2,245	2,046	2,018	1,944	1,845
Total Cases	**1,19,248**	**1,18,446**	**1,04,923**	**96,200**	**99,444**
Population /Total Cases	104	105	119	129	125
Number of Deaths due to Diarrhoea in Mumbai					
Total Deaths	262	169	340	225	*[12]
Total Cases/Total Deaths	455	701	309	428	

Inference:

Number of cases of diarrhoea reported in government hospitals and dispensaries has fallen from 2014 to 2018, however the number of cases is considerably high at 99,444 cases in 2018. This corresponds to increase in complaints[13] of water contamination, one cause of the disease, which has increased by 30% from 2014 to 2018.

Table 7: Cholera number of cases registered in government dispensaries and hospitals in Mumbai from Jan 2014 to Dec 2018

Years	2014	2015	2016	2017	2018
Number of Cholera Cases in government dispensaries/hospitals in Mumbai					
MCGM dispensaries/hospitals	27	188	104	26	17
State hospitals	11	4	8	1	1
Other government dispensaries/hospitals	0	6	0	0	1
Total Cases	**38**	**198**	**112**	**27**	**19**
Population /Total Cases	3,27,431	62,840	1,11,093	4,60,829	6,54,862
Number of Deaths due to Cholera in Mumbai					
Total Deaths	**1**	**5**	**1**	**0**	*
Total Cases/Total Deaths	38	40	112	0	

[12] (*) In all cases for 2018 the cause of death is not yet available through the MCGM.

[13] Refer to Mumbai Civic White Paper 2019: https://praja.org/praja_docs/praja_downloads/Mumbai%20Civic%20Issue%20White%20Paper_2019.pdf

Table 8: Typhoid number of cases registered in government dispensaries and hospitals in Mumbai from Jan 2014 to Dec 2018

Years	2014	2015	2016	2017	2018
Number of Cases in government dispensaries/hospitals in Mumbai					
MCGM dispensaries/hospitals	4,196	4,627	3,528	2,801	3,162
State hospitals	183	273	634	820	861
Other government dispensaries/hospitals	406	309	478	866	1,183
Total Cases	**4,785**	**5,209**	**4,640**	**4,487**	**5,206**
Population /Total Cases	2,600	2,389	2,682	2,773	2,390
Number of Deaths due to Typhoid in Mumbai					
Total Deaths	3	8	8	8	*[14]
Total Cases/Total Deaths	1,595	651	580	561	

Inference:

Number of cases of typhoid reported in government hospitals and dispensaries has risen from 4,785 in 2014 to 5,206 in 2018.

[14] (*) In all cases for 2018 the cause of death is not yet available through the MCGM.

B. Tuberculosis

Government of India's Revised National Tuberculosis Programme (RNTCP) is a state-run programme to control Tuberculosis (TB) in India. RNCTP programme adopted World Health Organisation's (WHO) guidelines and implemented Directly Observed Treatment Short-course (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[15]:

- Sustained political and financial commitment.
- Diagnosis by quality ensured sputum-smear microscopy.
- Standardized 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.
- Standardized recording and reporting. Helps to keep track of each individual patient and to monitor overall programme performance.

In Maharashtra, the RNTCP programme is monitored by the Deputy Director of Health Services (T.B., B.C.G.) located at Mumbai. For every district, a District Control unit is set up for implementing the RNTCP guidelines.

Table 9: Tuberculosis number of cases registered in government dispensaries and hospitals in Mumbai from Jan 2014 to Dec 2018

Years	2014	2015	2016	2017	2018
Number of Tuberculosis Cases in government dispensaries/hospitals					
MCGM dispensaries/hospitals	41,322	39,442	44,131	51,844	46,510
State hospitals	1,445	1,948	1,902	2,727	2,228
Other government dispensaries/hospitals	495	448	450	574	504
Total Cases	**43,262**	**41,838**	**46,483**	**55,145**	**49,242**
Population /Total Cases	288	297	268	226	253
Number of Deaths due to Tuberculosis in Mumbai					
Total Deaths	**6,589**	**5,693**	**6,660**	**5,449**	*[16]
Total Cases/Total Deaths	7	7	7	10	

Inference:
Number of TB cases have been consistently high in the last five years. TB deaths are also high at 5,449 in 2017 which is 15 deaths per day.

[15] What is DOTS? Click here to know about it: http://www.searo.who.int/tb/topics/what_dots/en/
[16] (*) In all cases for 2018 the cause of death is not yet available through the MCGM.

Table 10: Defaulters cases from Directly Observed Treatment, Short Course (DOTS) programme from Jan 2014 to Dec 2018

Years (year in which case registered)	2014	2015	2016	2017	2018
No. of notified cases under Nikshay (Public and Private) diagnosed[17] *(from Nikshay Portal)*	NA			34,023	57,429
No. of notified cases under Nikshay (Public and Private) resident[18] *(from TB cell through RTI)*	NA				46,513
No. of cases from Govt. Hospitals and Dispensaries	43,262	41,838	46,483	55,145	49,242
Total Cases registered under DOTS (a) (New and Retreatment Cases) *(from TB cell through RTI)*	30,832	27,200	22,462	21,706	25,576
Defaulters from DOTS Programme *(from TB cell through RTI)* **(b)**	2,823	2,927	2,258	2,323	#
Defaulter cases in % (b*100/a)	9%	11%	10%	11%	
Number of deaths under MCGM's TB Control Unit(RNTCP) *(from TB cell through RTI)*	1,459	1,240	963	803	
Number of deaths under MCGM's Registration of Births and Deaths. *(from MCGM and state government through RTI)*	6,589	5,680	6,660	5,449	

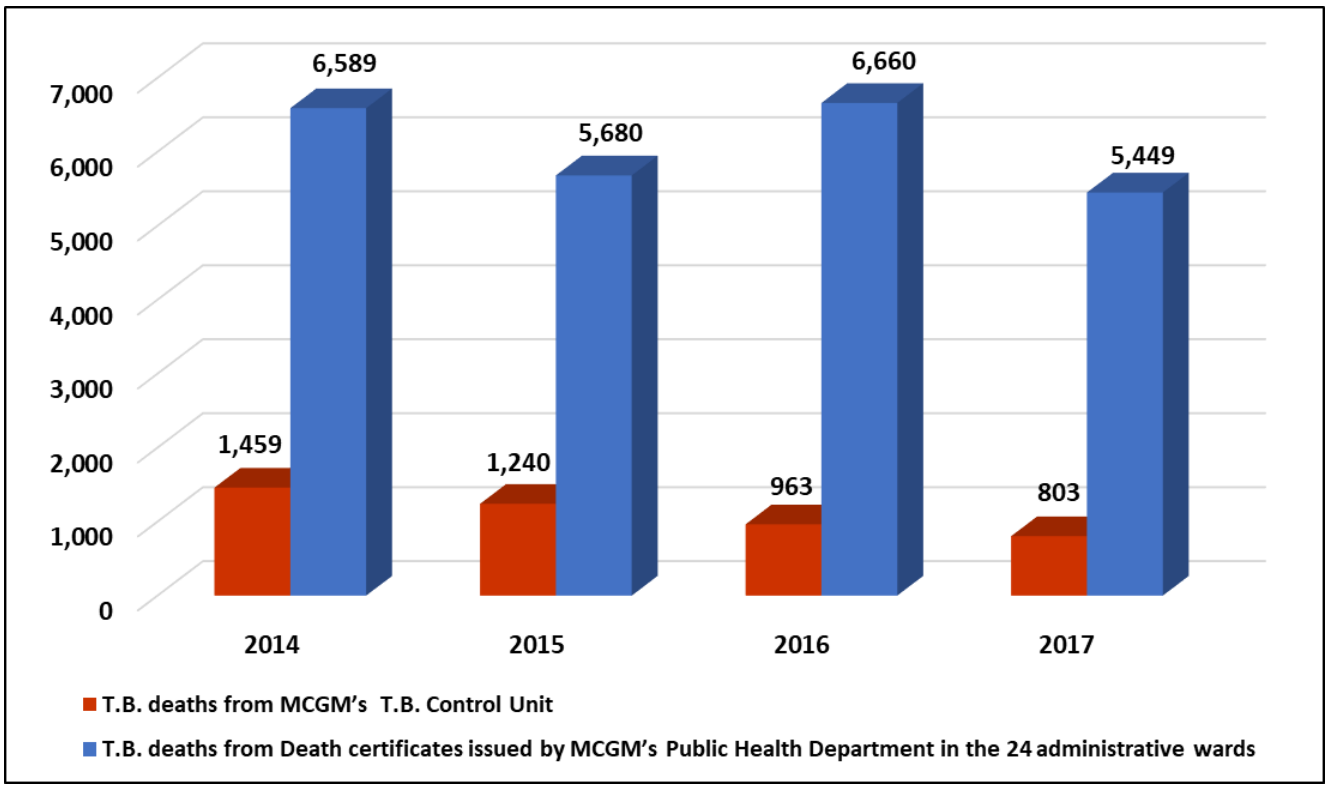
Note: (#) Data for 2018 defaulters and deaths was not provided through RTI since it is still under process;
(NA) Nikshay portal data provides public and private numbers only for 2017 and 2018, while from TB Cell Nikshay numbers for public and private were available only for 2018.

Inference:

- While 71% of total cases from government hospitals were registered under DOTS in 2014, this fell to 52% in 2018, if we consider that all patients who registered for DOTS were from the government health facilities. Rest of the TB patients can be assumed to access private services, although the outcomes of all 46,513 patients (2018) are now monitored by RNTCP.
- Defaulter cases under DOTS treatment are an average of 10% patients from 2014 to 2017.

[17] 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 2018.
[18] 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.

Figure 4 : Discrepancy in reporting system of Tuberculosis deaths from 2014 to 2017[19]



Inference:

Cases of death reported through Mumbai TB Division are lesser that those reported through death registration of the MCGM. It is important that proper training be done for doctors on what accounts for exact cause of death, and that there needs to be coherence on what exactly can be categorised as death due to TB and the two need to match. The data of deaths registered under RNTCP is used under policy but there is a vast difference from RNTCP numbers and total deaths reported by the same body (MCGM) through death certificates.

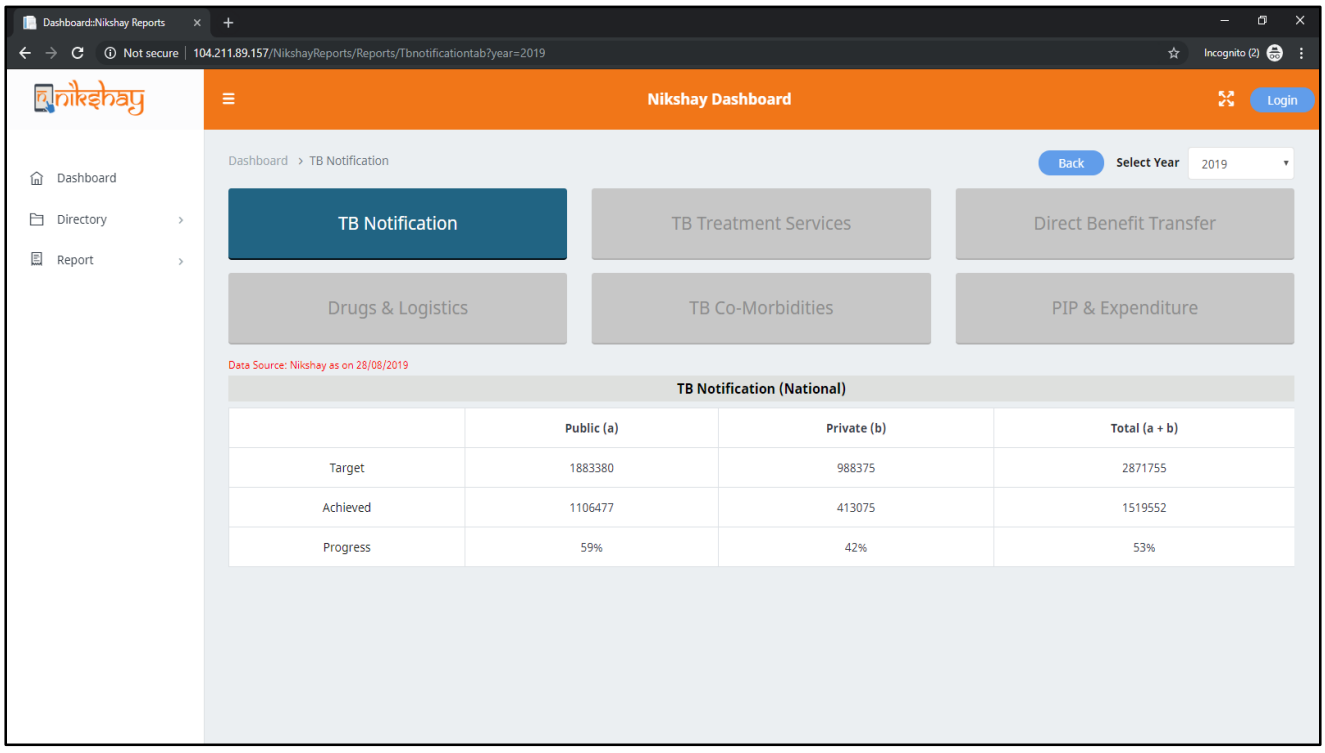
[19] TB control unit data is based on year in which cases were registered.

Nikshay Portal: Central TB division recently launched Nikshay Portal. The word is combination of two Hindi words NI and KSHAY meaning eradication of tuberculosis. Nikshay is a web based solution for monitoring of TB patients under the Revised National Tuberculosis Programme (RNTCP) effectively. The two broad objectives of Nikshay are:

- To create database of all TB patients including Multi Drug Resistant TB cases across India.
- To use this database for monitoring and research purposes at all levels for controlling TB.

Even though Nikshay claims to have database of Multi Drug Resistant TB (MDR-TB) and Extensively Drug Resistant TB (XDR-TB) patients, there is no published database on MDR-TB and XDR-TB. Most of the tabs on the dashboard have no hyperlink for public access and data is not available public/private facility wise. RNTCP Guidelines for Nikshay Portal do not mention about publication of the data but only for internal management of TB division and different health facilities. It is very important to track tuberculosis, it is the highest cause of death among communicable diseases and the number of cases annually of TB in the city is high. Although the portal is a positive initiative to report TB, it is important to streamline the patient wise tracking otherwise it would lead to duplication of data, since there is daily updating of numbers there is a possibility that patient count be replicated.

Figure 5: Screenshot of Nikshay Portal as on 29.08.2019



C. Non-Communicable Diseases[20]

Table 11: Diabetes number of cases registered in government dispensaries and hospitals in Mumbai from Jan 2014 to Dec 2018[21].

Years	2014	2015	2016	2017	2018
Number of Diabetes Cases in government dispensaries/hospitals in Mumbai					
MCGM dispensaries/hospitals	40,946	26,886	22,047	19,146	19,392
State hospitals	1,063	846	907	2,918	3,654
Other government dispensaries/hospitals	3,648	7,366	9,912	9,241	8,434
Total Cases	**45,657**	**35,098**	**32,866**	**31,305**	**31,480**
Population /Total Cases	273	355	379	397	395
Number of Deaths due to Diabetes in Mumbai					
Total Deaths	**2,428**	**2,544**	**9,088**	**9,525**	*[22]
Total Cases/Total Deaths	19	14	4	3	

Inference:

Number of diabetes cases registered in government dispensaries and hospitals have fallen in last five years although a high number of deaths has been reported- 9,525 in 2017 which is 26 deaths per day.

Table 12: Hypertension number of cases registered in government dispensaries and hospitals in Mumbai from Jan 2014 to Dec 2018.

Years	2014	2015	2016	2017	2018
Number of Hypertension Cases in government dispensaries/hospitals in Mumbai					
MCGM dispensaries/hospitals	30,376	25,017	24,455	20,698	20,971
State hospitals	889	949	1,087	3,055	3,734
Other government dispensaries/hospitals	5,096	10,307	12,376	10,920	9,265
Total Cases	**36,361**	**36,273**	**37,918**	**34,673**	**33,970**
Population /Total Cases	342	343	328	359	366
Number of Deaths due to Hypertension in Mumbai					
Total Deaths	**5,030**	**4,486**	**3,557**	**3,693**	*
Total Cases/Total Deaths	7	8	11	9	

Inference:

Number of cases of hypertension reported in government hospitals and dispensaries has fallen marginally from 36,361 in 2014 to 33,970 in 2018.

[20] Non-communicable diseases, are those which cannot be transmitted from one person to another, these tend to be of long duration and are the result of a combination of genetic, physiological, environmental and behavioural factors.

[21] 18 dispensaries had 'suspected cases' in the number of cases pertaining to Diabetes.

[22] (*) In all cases for 2018 the cause of death is not yet available through the MCGM.

VII. Reproductive Health and Key Mortality Rates

Table 13: Births and Deaths Rate in Mumbai from 2014 to 2018

Indicators	2014	2015	2016	2017	2018
M.Y.E.P Population[23]	1,25,84,139	1,26,43,252	1,26,89,644	1,27,36,036	1,27,82,429
Live Births	1,74,084	1,74,902	1,52,952	1,55,386	1,51,310
Birth Rate (Births per 1000 population)	13.83	13.83	12.05	12.20	11.84
Still Births	2,421	2,225	486	158	929
Total Deaths	93,254	94,706	86,642	89,037	88,852
Death Rate (Deaths per 1000 population)	7.41	7.49	6.83	6.99	6.95

Table 14: Mother and Child Death Indicators in Mumbai from 2014 to 2018[24]

Indicators	2014	2015	2016	2017	2018
Neo-Natal Deaths (less than 28 days)	2,999	2,788	2,498	2,563	2,239
Neo-Natal Mortality Rate (deaths per 1000 live births)	17.23	15.94	16.33	16.49	14.80
Infant Deaths (Less than 1 year)	4,883	4,575	3,998	4,079	3,723
Infant Mortality Rate (deaths per 1000 live births)	28.05	26.16	26.14	26.25	24.61
Under 5 Mortality/Child Deaths (less than 5 years)	5,866	5,540	4,932	5,020	4,529
Under 5 Morality rate (deaths per 1000 live births)	33.70	31.67	32.25	32.31	29.93
Maternal Deaths	229	314	305	236	217
Maternal Mortality Rate (per 1,00,000 live births)	172	180	199	152	143

Inference:

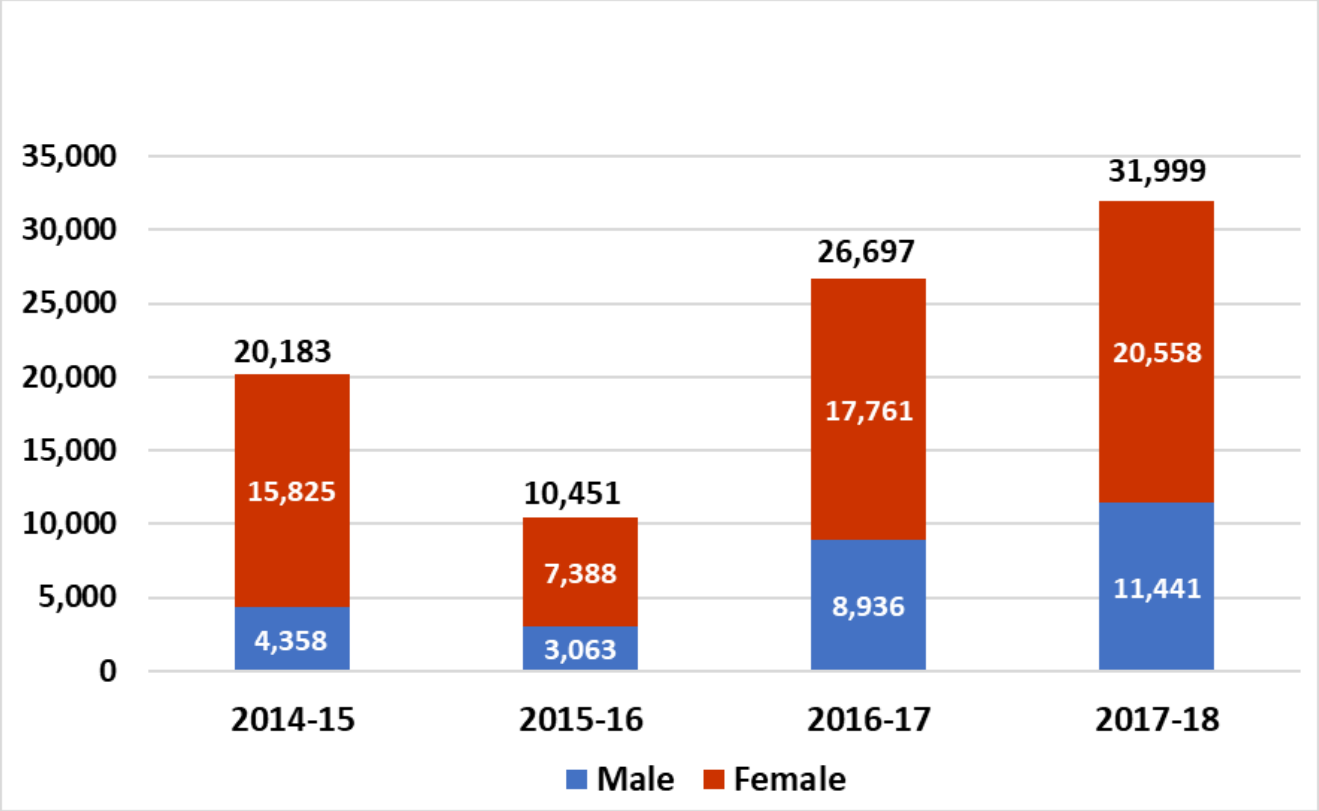
- In the year 2018, number of still births reported were 929 which is a 488% increase from 158 still births reported in 2017.
- As per WHO[25], India's MMR in 2015(The year Millennium Developmental Goals(MDG) ended) was 174. The MMR for Mumbai in the same year was 180. Similarly, Sustainable Development Goal's (SDG) National MMR target for 2030 is 70. Even though there is a decreasing trend in MMR from last 2 years, but still the picture is grim at 143 in 2018.
- Similarly, Under- 5 mortality rate (U5MR) National target under SDGs is 11 as adopted and the current U5MR is 30 in Mumbai.

[23] MYEP Population – Mid Year Estimated Population

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

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

Figure 6: Number of cases where treatment was initiated for Sexually Transmitted Infections and Reproductive Tract Infections in Mumbai (Public and Private) from 2014-15 to 2017-18



Inference:

- In last four years, the number of treatment initiated for STIs/RTIs have been increased by 30% for women in Mumbai.
- Out of the total number of treatments initiated in 2017-18, 64% were of women.

Table 15: Number of sterilisations and types of contraceptives adopted from 2014-15 to 2017-18

Type		2014-15	2015-16	2016-17	2017-18
Contraceptive Methods Used					
Male	Number of condoms distributed	54,37,286	54,57,965	54,53,541	59,78,295
Female	Number of Intrauterine Contraceptive Device (IUCD) (including post-partum, post abortion and interval)	49,274	42,064	49,285	47,586
	Number of injectable contraceptives (first dose)	NA	NA	NA	4,084[26]
	Number of combined oral pill cycles distributed	2,34,349	2,22,431	3,36,022	3,20,610
	Number of weekly pill strips distributed	1,214	2,367	0	532
	Number of Emergency Contraceptive Pills distributed	145	770	102	574
Sterilisations					
Male	Number of vasectomies conducted	444	800	725	914
	Number of complications following sterilisation	0	1	0	0
	Number of failures following sterilisation	0	1	0	0
	Number of deaths following sterilisation	0	1	0	0
Female	Laparoscopic sterilisation/ Tubectomy	23,690	19,185	20,742	20,750
	Number of complications following sterilisation	1	2	0	0
	Number of failures following sterilisation	13	8	8	11
	Number of deaths following sterilisation	0	1	4	2

Inference:

- The most common contraceptive adopted by women in the year 2018 were oral pills. It is also important to notice that even though a high number of condoms (male condoms) and pills (oral, ECP and weekly) are distributed, it does not indicate the usage of these contraceptives. But it does highlight the fact that there has been increasing awareness about the contraceptives.
- Condoms apart from preventing pregnancy prevent STIs as well. However, this does not reflect in the high STI cases (shown in figure 6), especially in women.
- Despite significant number of condom distribution, the number of sterilisations done are high among women. Vasectomy are easier and safer than Tubectomy, still more and more women are pushed for Tubectomy. Even deaths were reported due to sterilisation among women.

[26] Programme for injectable contraceptives (Antara Programme) started in 2017-18.

VIII. MCGM Budget

Table 16: Total Budget Estimates and Actuals[27] of MCGM Health Budget from 2016-17 to 2018-19 (In crores)

Heads	2016-17			2017-18			2018-19
	Estimates	Actuals	Utilisation (%)	Estimates	Actuals	Utilisation (%)	Estimates
MCGM Health Department[28]							
Revenue Expenditure	728	566	78%	678	597	88%	717
Municipal Hospitals							
Revenue Expenditure	2,055	1,570	76%	2,069	1,696	82%	2,180
Other[29]							
Revenue Expenditure	9	6	60%	9	6	69%	8
Total Revenue Expenditure	**2,793**	**2,141**	**77%**	**2,756**	**2,299**	**83%**	**2,905**
Total Capital Expenditure	**901**	**242**	**27%**	**556**	**294**	**53%**	**732**
Total Health	**3,694**	**2,383**	**65%**	**3,312**	**2,593**	**78%**	**3,637**

Inference:

Budget trend shows that the revenue expenditure on primary healthcare (dispensaries and programmes that fall under MCGM Health department) are considerably lesser than the expenditure on hospitals, whereas the focus of the local government should be to improve the primary health care services to provide affordable healthcare closest to the citizen.

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

[28] Includes preventive and primary public healthcare, dispensaries, burials and cremation.

[29] Includes other departments to which health budget allocated for certain related services, for example, environment dept.

Table 17: Revenue Budget Estimates and Actuals[30] of MCGM Health Department Budget from 2016-17 to 2018-19 (In crores)

Heads	2016-17			2017-18			2018-19
	Estimates	Actuals	Utilisation (%)	Estimates	Actuals	Utilisation (%)	Estimates
MCGM Health Department							
Establishment expenses	500	380	76%	434	402	93%	454
Administrative expenses	57	25	45%	54	32	60%	56
Operation and maintenance	90	70	78%	100	72	72%	106
Interest and Finance charges	1	1	100%	1	1	100%	1
Programme expenses	7	2	31%	5	2	43%	7
Revenue grants contribution and subsidies	74	80	109%	84	78	94%	92
Transfer to reserve funds	1	1	100%	1	1	100%	1
Total Revenue Expenditure	**728**	**566**	**78%**	**678**	**597**	**88%**	**717**

Inference:

- Utilisation of programme expenses of the health department has been poor at 31% in 2016-17 and 43% in 2017-18.
- Utilisation of establishment expenses in 2016-17 and 2017-18 have been 76% and 93% respectively, which is mainly spent on the salaries of the employed staff. Gap in utilisation shows non filling of all sanctioned posts.

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

Table 18: Revenue Budget Estimates and Actuals[31] of MCGM Hospitals Budget from 2016-17 to 2018-19 (In crores)

Heads	2016-17			2017-18			2018-19
	Estimates	Actuals	Utilisation (%)	Estimates	Actuals	Utilisation (%)	Estimates
MCGM Hospitals							
Establishment expenses	1,506	1,136	75%	1,422	1,222	86%	1,527
Administrative expenses	129	63	49%	170	79	46%	146
Operation and maintenance	416	300	72%	468	306	65%	495
Interest and Finance charges	0	0	0%	0	0	0%	0
Programme expenses	3	1	33%	9	2	22%	11
Revenue grants contribution and subsidies	1	0	0%	1	0	0%	1
Transfer to reserve funds	0	0	0%	0	0	0%	0
Total Revenue Expenditure	**2,055**	**1,570**	**76%**	**2,069**	**1,696**	**82%**	**2,180**

Inference:

- Overall Utilisation of revenue expenses of the hospitals (82%) in 2017-18 is lesser than health department (88%).
- Utilisation of establishment expenses in 2016-17 and 2017-18 have been 75% and 86% respectively, which is mainly spent on the salaries of the employed staff. Gap in utilisation shows non filling of all sanctioned posts.

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

IX. Personnel

Table 19: Percentage gap in the Personnel of Municipal Dispensaries in Mumbai in 2017 and 2018

Personnel in Municipal Dispensaries								
Post	**2017**				**2018**			
	Sanctioned	**Available**	**Gap**	**Gap %**	**Sanctioned**	**Available**	**Gap**	**Gap %**
Medical	213	190	23	11%	224	209	15	7%
Para-Medical	269	195	74	28%	273	213	60	22%
Nursing Staff	0	0	0	0%	7	6	1	14%
Administration	2	2	0	0%	3	2	1	33%
Labour	425	328	97	23%	434	332	102	24%
Overall	**909**	**715**	**194**	**21%**	**941**	**762**	**179**	**19%**

Inference:

- Available personnel in the MCGM dispensaries shows a 7% shortage in medical staff and 22% and 14% shortage in para-medical and nursing staff respectively in 2018.
- Available medical staff in dispensaries is 209 for 181 dispensaries which is 1.15 medical staff per dispensary, a very low figure considering that dispensaries are to provide essential primary health care services to the population. There is one doctor (medical staff) for a population of 59,533 people for primary health care provision.

Table 20: Percentage gap in the Personnel of Municipal Hospitals in Mumbai in 2017 and 2018

Personnel in Municipal Hospitals								
Post	**2017**				**2018**			
	Sanctioned	**Available**	**Gap**	**Gap %**	**Sanctioned**	**Available**	**Gap**	**Gap %**
Medical	1,739	1,057	682	39%	2,194	1,259	935	43%
Para-Medical	2,044	1,440	604	30%	2,121	1,421	700	33%
Nursing Staff	6,288	5,108	1,180	19%	6,296	5,483	813	13%
Administration	1,405	1,015	390	28%	1,407	1,002	405	29%
Labour	9,928	7,471	2,457	25%	10,077	7,253	2,824	28%
Lecturer in Medical College	1,433	871	562	39%	1,431	893	538	38%
Overall	**22,837**	**16,962**	**5,875**	**26%**	**23,526**	**17,311**	**6,215**	**26%**

Inference:

Available personnel in the municipal hospitals shows a 43% shortage in medical staff and 33% and 13% shortage in para-medical and nursing staff respectively in 2018.

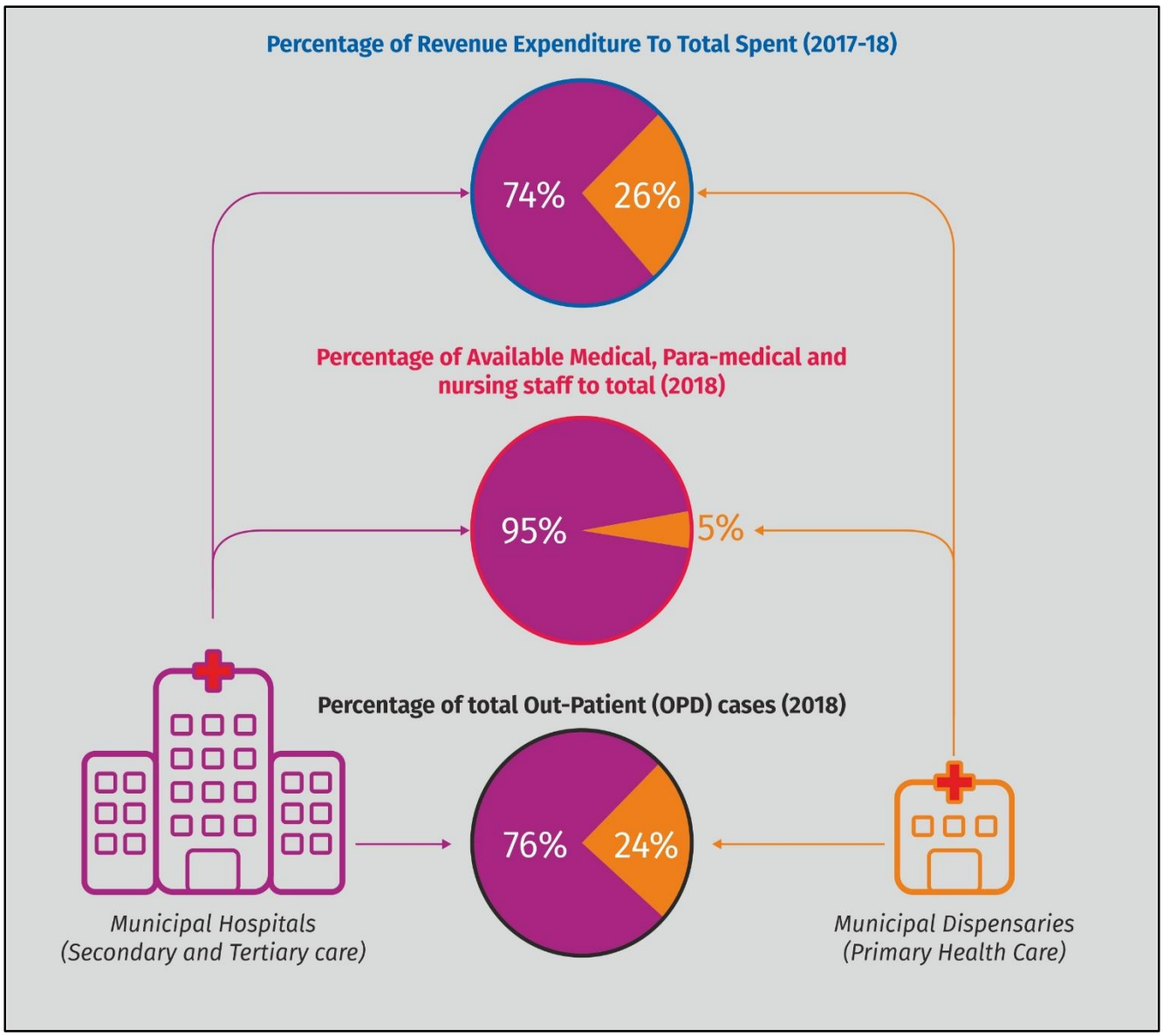
Table 21: Percentage gap in the Personnel of State Hospitals in Mumbai in 2017 and 2018

Personnel in State Hospitals								
Post	**2017**				**2018**			
	Sanctioned	**Available**	**Gap**	**Gap %**	**Sanctioned**	**Available**	**Gap**	**Gap %**
Medical	152	63	89	59%	150	67	83	55%
Para-Medical	440	330	110	25%	436	320	116	27%
Nursing Staff	2,295	1,936	359	16%	2,654	2,189	465	18%
Administration	283	205	78	28%	341	239	102	30%
Labour	2,326	1,839	487	21%	2307	1,832	475	21%
Lecturer in Medical College	239	99	140	59%	236	80	156	66%
Overall	**5,735**	**4,472**	**1,263**	**22%**	**6,124**	**4,727**	**1,397**	**23%**

Inference:

Available personnel in the state hospitals shows a 55% shortage in medical staff and 27% and 18% shortage in para-medical and nursing staff respectively in 2018.

Figure 7: Comparison of Resource Allocation and Access to Health Services

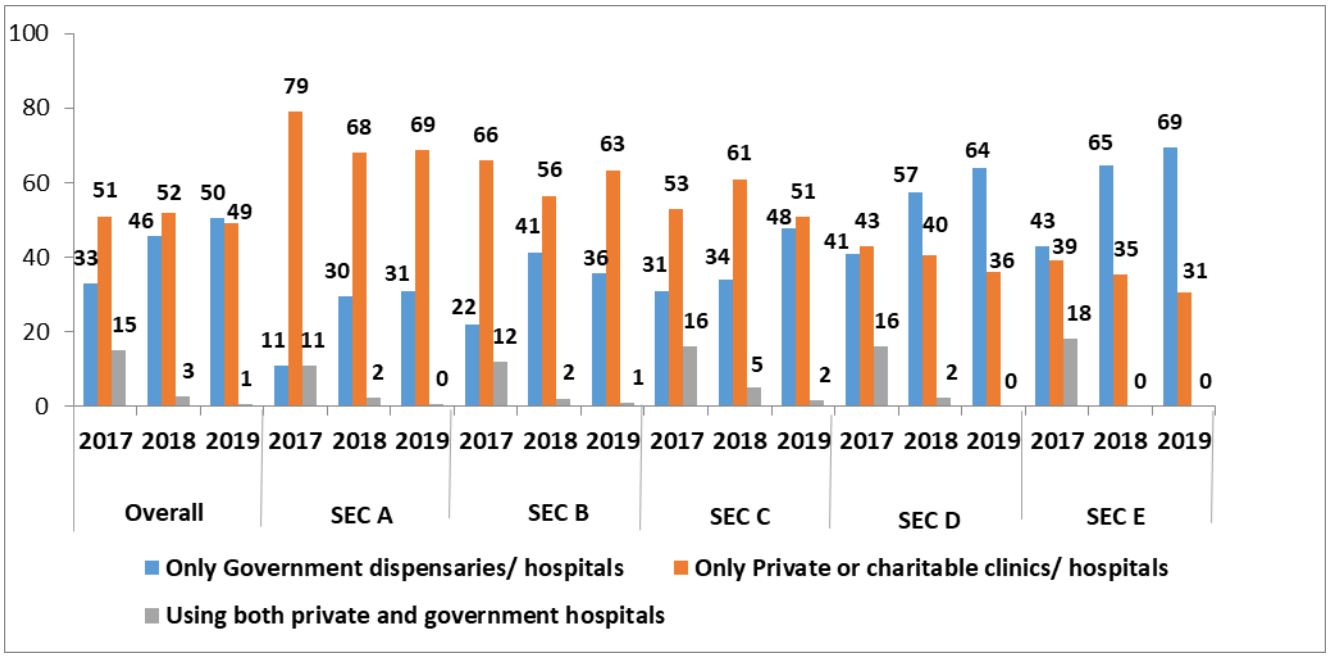


Inference:

- In terms of financial and human resource allocation of the MCGM, majority of spending (74%) and available medical, paramedical and nursing staff (95%) is allocated to hospitals.
- Although hospitals bear the load of secondary and tertiary health care and therefore need significant budgetary allocation, is it evident that poor resource allocation to dispensaries, which are the primary healthcare units is leading people to go to hospitals for diseases and ailments which should be treated at the dispensary level.
- Only 24% of total out-patient cases were in municipal dispensaries in 2018, putting a huge pressure on hospital OPD.
- It is important that better allocation should be done at the dispensary level so that primary health care can be strengthened in the city.

X. Citizen Survey Data[32]

Figure 8: Type of Facilities used by the citizens across different Socio-Economic Classes (SEC), 2019[33]



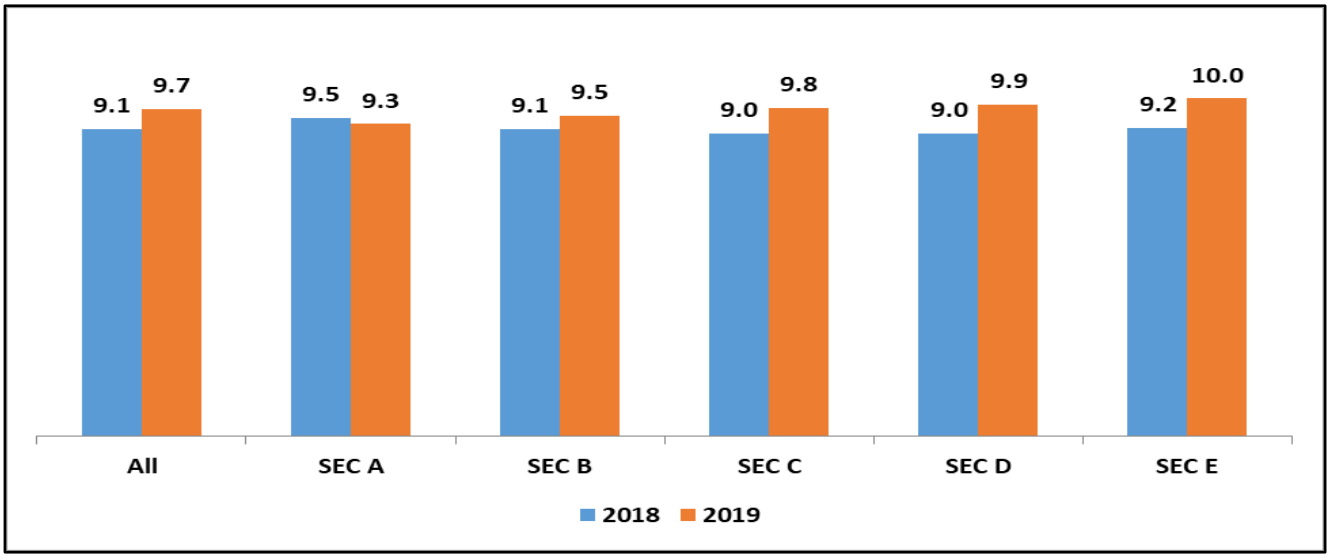
Inference:

Overall while there is not much of a percentage difference in access to government (50%) vis a vis private (49%) dispensaries and hospitals in 2019, there is a clear socio-economic divide. While 69% of people in the lowest SEC access government hospitals and 31% access private services, it is the opposite in the highest SEC, where 31% accessed government services and 69% accessed private in 2019.

[32] The survey data covered questions related to type of diseases each family member suffered, type of healthcare facility accessed for the treatment, average income spent to avail health services and access to medical insurance in the last year.

[33] As of July 2019

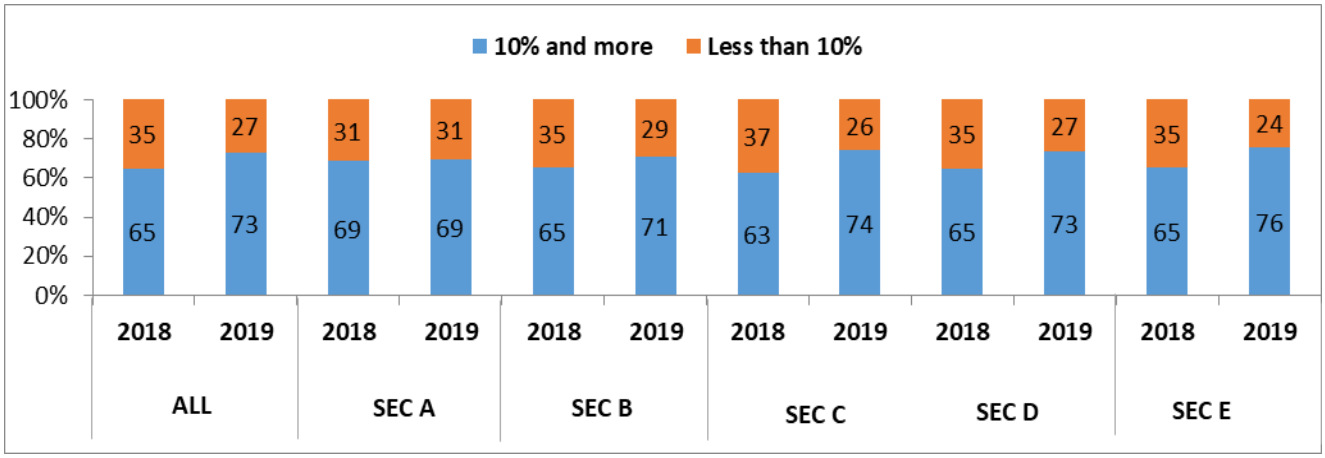
Figure 9: Estimated average percentage of Annual Family Income spent on hospital/medical costs across Socio-Economic Classes (SEC)[34]



Inference:

- Estimated annual income spent on hospital/medical costs was 9.7% across all SECs in 2019.
- The percentage of income spent on health services is shown not to vary across socio-economic classes, however the burden of accessing health services is much higher towards the lower SECs and the impact of subsidised services is not evident.

Figure 10: Estimated percentage of Annual Family Income spent on medical costs across Socio-Economic Classes

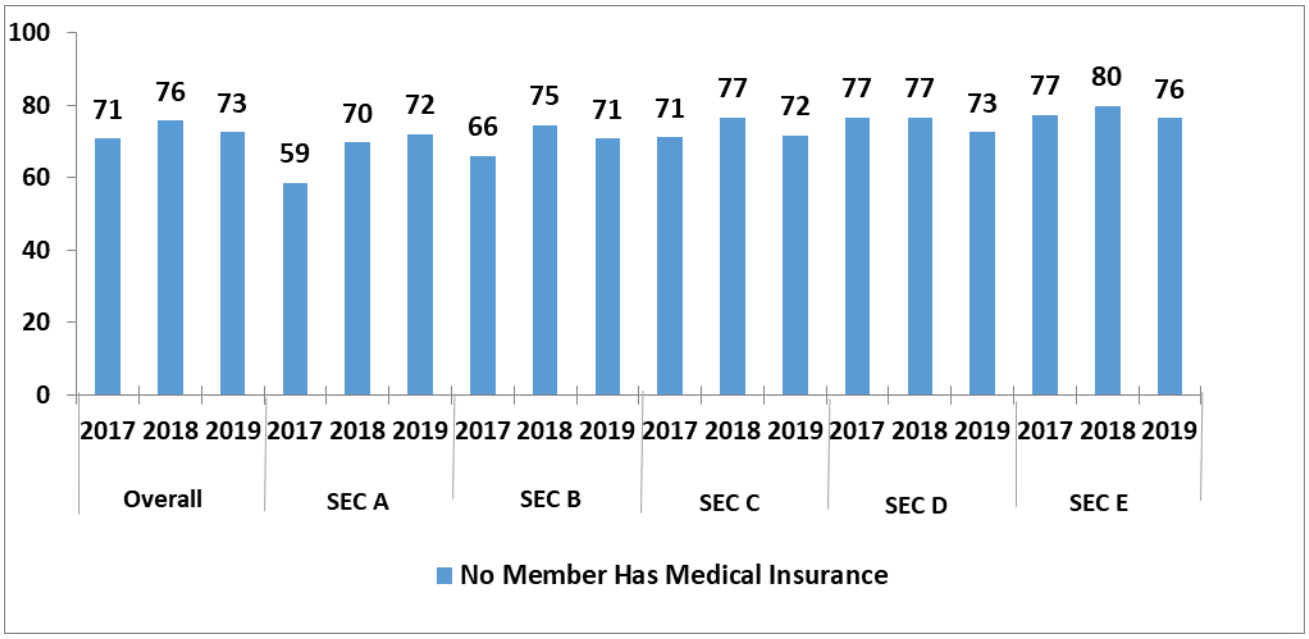


Inference:

A majority of households (73%) spent 10% or more of their income on health services, across socio-economic categories.

[34] Refer Annexure 4 for Socio-Economic Classification

Figure 11: Number of households across Socio-Economic Classes with no Medical Insurance



Inference:

In 72% of households in SEC A and 76% of households in SEC E, no member has medical insurance. This is an appalling number, given that the government has been shifting its focus from a supply driven health service to demand driven insurance based health subsidies.

Table 22: Percentage of households with public and private insurance SEC wise in 2019

Insurance	SEC A	SEC B	SEC C	SEC D	SEC E	Overall
Public	27.6%	22.3%	20.9%	20.1%	34.2%	25.4%
Private	60.4%	65.0%	64.9%	57.0%	44.2%	58.3%
Both	12.0%	12.7%	14.2%	22.9%	21.6%	16.2%

Inference:

Of the 27% respondents who had insurance schemes, 58% had availed of private insurance schemes, even in SEC D and SEC E, majority respondents had private insurance showing that public insurance schemes have not been accessed even by the lower SECs.

Table 23: Awareness, enrollment and availing of government insurance schemes SEC wise in 2019

Name of Government Insurance Scheme	SEC A	SEC B	SEC C	SEC D	SEC E	Overall
Whether Aware of Any Government Health Insurance Scheme						
No	71%	74%	73%	72%	74%	73%
Yes	29%	26%	27%	28%	26%	27%
Out of those aware of any scheme, % of respondents' Scheme Wise Awareness						
Mahatma Jyotiba Phule Jan Aarogya Yojana	51%	43%	44%	48%	46%	46%
Ayushman Bharat Scheme [Pradhan Mantri Jan Aarogya Yojana (PMJAY)]	80%	78%	83%	75%	75%	78%
Rashtriya Shwastiya Bima Yojana [RSBY]	50%	47%	42%	47%	43%	45%
Others	10%	8%	7%	8%	7%	8%
Of those aware of the scheme, % of respondents enrolled in the scheme						
Mahatma Jyotiba Phule Jan Aarogya Yojana	56%	53%	45%	39%	49%	47%
Ayushman Bharat Scheme [Pradhan Mantri Jan Aarogya Yojana (PMJAY)]	43%	33%	30%	36%	36%	35%
Rashtriya Shwastiya Bima Yojana [RSBY]	42%	38%	35%	26%	42%	35%
Others	52%	42%	32%	55%	26%	43%
Of those who enrolled in the scheme, % of respondents who availed the scheme						
Mahatma Jyotiba Phule Jan Aarogya Yojana	54%	53%	51%	50%	55%	53%
Ayushman Bharat Scheme [Pradhan Mantri Jan Aarogya Yojana (PMJAY)]	26%	21%	18%	29%	14%	22%
Rashtriya Shwastiya Bima Yojana [RSBY]	46%	41%	29%	56%	37%	41%
Others	76%	71%	58%	66%	100%	71%

Inference:

- 73% of respondents on an average were not aware of any government scheme for health insurance, and there is not much variation from the average SEC wise.
- Of the 27% who were aware of any government health insurance scheme, 46% were aware of Mahatma Jyotiba Phule Jan Aarogya Yojana, 78% knew of Ayushman Bharat Scheme, and 45% were aware of Rashtriya Shwastiya Bima Yojana.
- Of the respondents who were aware of the scheme, 47% have enrolled in Mahatma Jyotiba Phule Jan Aarogya Yojana of which 53% have availed of the insurance. Similarly, 35% have enrolled for Rashtriya Shwastiya Bima Yojana of which 41% have availed of the insurance.
- Of the newly launched Ayushman Bharat Scheme, out of the respondents who were aware of the scheme, 35% had enrolled of which 22% had availed the scheme.

Table 24: Ward wise access to insurance compared with health expenses and type of service accessed.

Ward	% households where no member has insurance	% of annual family income spent on health	Type of health facilities accessed by the population		
			% accessing public hospitals/dispensaries	% accessing private hospitals/dispensaries	% accessing both private and govt. hospitals/dispensaries
A	71%	10%	36%	64%	0%
B	79%	9%	60%	40%	0%
C	78%	11%	72%	24%	4%
D	63%	9%	38%	62%	0%
E	76%	8%	64%	36%	0%
F/N	75%	11%	40%	59%	1%
F/S	77%	12%	64%	36%	0%
G/N	78%	10%	53%	47%	0%
G/S	72%	7%	57%	43%	0%
H/E	71%	10%	53%	45%	2%
H/W	80%	9%	57%	44%	0%
K/E	76%	10%	45%	55%	0%
K/W	78%	10%	55%	44%	0%
L	75%	11%	60%	40%	0%
M/E	77%	11%	57%	43%	0%
M/W	76%	10%	37%	63%	0%
N	71%	11%	46%	54%	0%
P/N	77%	8%	26%	71%	3%
P/S	73%	10%	46%	54%	0%
R/C	54%	9%	43%	53%	4%
R/N	39%	10%	55%	44%	1%
R/S	71%	9%	61%	39%	0%
S	78%	11%	38%	62%	0%
T	73%	11%	40%	58%	2%

Inference:

The percentage of annual family income spent on accessing health services is highest (12%) among the population residing in F/S (Parel) ward and 77% of its population does not have health insurance.

Table 25: Estimated spent on Hospitals/Medical costs

2015-16		2016-17		2017-18	
Estimated Annual Per Capita Income in Mumbai	Rs. 2,53,331	Estimated Annual Per Capita Income in Mumbai	Rs. 2,68,597	Estimated Annual Per Capita Income in Mumbai[35]	Rs. 2,94,764
Less 25% (Estimated accounting for savings and taxation)	Rs. 1,89,998	Less 25% (Estimated accounting for savings and taxation)	Rs. 2,01,448	Less 25% (Estimated accounting for savings and taxation)	Rs. 2,21,073
Estimated Annual Income per household = Per Capita X 4.58	Rs. 8,70,192	Estimated Annual Income per household = Per Capita X 4.58	Rs. 9,22,631	Estimated Annual Income per household = Per Capita X 4.58	Rs. 10,12,514
Estimated Annual Expenditure on Health per household = 7.8%	Rs. 67,875	Estimated Annual Expenditure on Health per household = 9.1%	Rs. 83,959	Estimated Annual Expenditure on Health per household = 9.7%	Rs. 98,214
Estimated Overall Household Annual Expenditure on Health = Rs. 67,875 X 2,830,000	Rs. 19,209 crores	Estimated Overall Household Annual Expenditure on Health = Rs. 83,959 X 2,830,000	Rs. 23,761 crores	Estimated Overall Household Annual Expenditure on Health = Rs. 98,214 X 2,830,000	Rs. 27, 795 crores

Inference:

Annual expenditure on health per households has been increasing over the years, from Rs. 67,875 in 2015-16 to Rs. 98, 214 in 2017-18, a 45% increase in 2 years.

[35] Estimated annual per capita income in Mumbai for years 2015-16, 2016-17 and 2017-18 is taken from Per Capita Nominal Gross District Value Added (at current prices) for Mumbai based on Economic Survey of Maharashtra Report 2018-19.

Table 26: Estimated cases of Diseases and Ailments across different Socio-Economic Classes in 2019

Diseases & Ailments	Malaria	Dengue	Diabetes	Cancer	Chikungunya	Hypertension
Overall	1,03,988	96,711	1,61,314	13,732	8,648	38,506
SEC A	17,390	13,749	24,814	1,837	954	6,986
SEC B	20,605	16,448	24,385	3,510	2,021	8,833
SEC C	21,507	27,710	33,626	4,296	2,110	9,454
SEC D	25,427	13,712	34,550	2,476	2,913	6,557
SEC E	19,059	25,092	43,939	1,613	650	6,676

Table 27: Gender and Age-wise estimated cases of Diseases and Ailments across different socio-economic classes in 2019

Diseases and Ailments	Total Estimated Cases					
	Overall	Males	Females	18 - 25 years	26 - 40 years	40+ years
Malaria	1,03,988	53,701	50,287	12,843	21,908	69,237
Dengue	96,711	55,900	40,811	24,986	23,027	48,698
Diabetes	1,61,314	80,429	80,885	3,005	33,786	1,24,523
Cancer	13,732	6,353	7,379	420	1,678	11,634
Chikungunya	8,648	3,950	4,698	1,494	2,152	5,002
Hypertension	38,506	19,705	18,801	2,772	9,243	26,491

Inference:

Highest number of cases recorded according to survey data is for diabetes, which is highest in the age above 40 years. Across different diseases and ailments, cases reported are highest from SEC C and D.

Table 28: Estimated number of cases availing Type of Facilities by diseases

	Year	Malaria	Dengue	Chikungunya	Cancer
Only Government dispensaries/ hospitals	2017	39,811	33,653	17,462	5,541
	2018	52,197	49,621	5,411	3,524
	2019	48,549	39,374	4,723	4,482
Only Private or Charitable clinics/ hospitals	2017	46,104	72,343	12,991	3,098
	2018	53,899	66,794	4,221	4,901
	2019	51,336	49,784	3,285	9,250
Using both private and government hospitals	2017	4,788	3,447	2,701	894
	2018	1,336	490	155	3,859
	2019	0	1,656	0	0

Table 29: Comparison of Dengue and Malaria cases as per RTI and survey data

Disease	Cases as per RTI data	Cases as per Survey data
Malaria	11,799	1,03,988
Dengue	19,516	96,711

Inference:

More cases have been registered in private hospitals and dispensaries for malaria and dengue than public hospitals, in 1,656 cases respondents have had to access both public and private cases for dengue. A comparison of data received from government hospitals and dispensaries (RTI data) as compared to total cases as per household survey shows a wide difference, which could either mean non-treatment or treatment in non-government health facilities.

XI. Deliberations by Municipal Councillors and MLAs on Health Issues

Table 30: Total numbers of Meeting, Attendance and Questions from April 2017 to March 2019 of Councillors in Public Health Committees.

Public Health Committee Meetings	Total Meetings	Attendance (%)	Total Questions Asked
April 2017 to March 2018	13	70%	154
April 2018 to March 2019	16	68%	159

Inference:

Councillors in Public Health Committee asked 159 questions from April 2018 to March 2019.

Table 31: Health issues raised by Public Health Committee Councillors from April 2017 to March 2019

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

(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:

Most issues in Public Health Committee from April 2018 to March 2019 were raised on infrastructure (31) while only one issue/question was raised on diseases like dengue, diarrhoea, etc. which have led to deaths in the city.

Table 32: Number of Questions asked on Health by Municipal Councillors ward-wise in all Committees from April 2017 to March 2019

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

Inference:

Councillors asked a total of 435 questions on health related issues from April 2018 to March 2019.

Table 33: Health issues raised by Municipal Councillors from April 2017 to March 2019

Issues	April 2017 to March 2018	April 2018 to March 2019
Total Questions asked	**435**	**435**
Budget	1	1
Bio medical Waste	5	2
Cemeteries / Crematorium related	15	21
Epidemic/Sensitive Diseases	57	75
Malaria/Dengue	18	*19*
Tuberculosis	8	*26*
Diarrhoea/Typhoid/Cholera	0	*1*
Diabetes/Hypertension	5	*2*
Dispensary/Municipal Hospital/State Hospital	12	9
Equipment	9	7
Eradication programme	2	0
Fogging	23	15
Health related	66	35
Human Resource	42	52
Health Service Related	13	49
Health Education/Institute Related	2	1
Infrastructure	57	59
Issue of Birth/Death certificates	1	3
License Related	15	12
Maternity homes / Primary Health Centre(PHC)	34	29
MCGM related	2	1
Mortality rate	3	0
Naming/ Renaming Hospital/Health Centre/Cemeteries	13	27
Nuisance due to Pest Rodents, stray dogs, monkeys etc.	8	4
Private health services	1	1
Reforms in health policies	3	1
Schemes / Policies in Health	25	27
Treatment/Medicines	26	26

(**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:

More issues from April 2018 to March 2019 were raised on naming/ renaming health services (27) than on diseases like dengue, tuberculosis, diabetes, etc. which have led to deaths in the city.

Table 34: Health issues raised by MLAs from Monsoon Session 2016 to Winter Session 2018

Issues	Monsoon 2016, Winter 2016, Budget 2017 and Monsoon 2017			Winter 2017, Budget 2018, Monsoon 2018 and Winter 2018[36]		
	Questions related to Mumbai	Other than Mumbai	Total Health Questions	Questions related to Mumbai	Other than Mumbai	Total Health Questions
Total Questions Asked	**326**	**626**	**919**	**440**	**1053**	**1493**
Bio Medical Waste	0	0	0	0	0	0
Budget	1	1	2	0	0	0
Cemeteries related	12	3	15	13	5	18
Epidemic/Sensitive Diseases	98	87	152	101	262	363
Diabetic/Hypertension	0	0	0	2	9	11
Malaria/Dengue	30	27	57	25	54	79
Diarrhoea/Typhoid/Cholera	2	3	5	4	13	17
Tuberculosis	11	5	16	24	27	51
Compensation/Rehabilitation	0	0	0	0	0	0
Dispensary/Municipal Hospital/State Hospital	3	9	12	0	1	1
Equipment	28	28	56	15	35	50
Eradication programme	0	0	0	0	0	0
Fogging	9	0	9	3	0	3
Food Poison	4	3	7	0	1	1
Health Education/Institute	8	25	33	4	41	45
Health Insurance	1	14	15	3	18	21
Health Related Issues	26	35	61	77	88	165
Health Service Related	9	12	21	38	63	101
Human Resource	23	47	70	24	57	81
Infrastructure	44	31	75	89	31	120
License Related	10	17	27	18	28	46
Maternity homes/Primary Health Centre(PHC)	1	4	5	3	22	25
Medical Examination of Students	0	9	9	0	5	5
Mortality Rate	0	111	111	4	135	139
Pollution	6	21	27	0	0	0
Private Health Services	20	22	42	18	42	60
Quacks	0	3	3	3	13	16
Reforms in health policies	0	0	0	1	0	1
Schemes / Policies in Health	4	61	65	3	64	67
Treatment/Medicines	19	83	102	33	155	188

(**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:

Only 29% out of total questions asked by Mumbai's MLAs on health from Winter 2017 to Winter 2018 were related to the city.

[36] Budget 2019 session had no questions and was adjourned due to code of conduct.

Table 35: Questions asked on health issues by MLAs in Winter 2017, Budget 2018, Monsoon 2018 and Winter 2018.

Constituency No.	Name of MLA	Political Party	Area	Questions related to Mumbai	Other than Mumbai	Total Health Questions
153	Manisha Ashok Chaudhari	BJP	Dahisar	16	32	48
154	Prakash Surve	SS	Magathane	3	16	19
155	Sardar Tara Singh	BJP	Mulund	5	16	21
156	Sunil Rajaram Raut	SS	Vikhroli	3	11	14
157	Ashok Patil	SS	Bhandup West	15	8	23
159	Sunil Prabhu	SS	Dindoshi	16	41	57
160	Atul Bhatkhalkar	BJP	Kandivali East	17	51	68
161	Yogesh Sagar	BJP	Charkop	25	53	78
162	Aslam Shaikh	INC	Malad West	52	112	164
164	Bharati Hemant Lavekar	BJP	Versova	5	22	27
165	Ameet Satam	BJP	Andheri West	14	38	52
166	Ramesh Latke	SS	Andheri East	1	1	2
167	Parag Alavani	BJP	Vile Parle	23	62	85
168	Md. Arif (Naseem) Khan	INC	Chandivali	18	59	77
169	Ram Kadam	BJP	Ghatkopar West	0	0	0
171	Abu Azmi	SP	Mankhurd Shivaji Nagar	18	42	60
172	Tukaram Kate	SS	Anushakti Nagar	7	10	17
173	Prakash Phaterpekar	SS	Chembur	12	26	38
174	Mangesh Kudalkar	SS	Kurla	1	18	19
175	Sanjay Potnis	SS	Kalina	11	19	30
176	Trupti Prakash Sawant	SS	Vandre (East)	1	18	19
177	Ashish Shelar	BJP	Vandre (West)	23	80	103
178	Varsha Gaikwad	INC	Dharavi	17	52	69
179	Captain R. Tamil Selvan	BJP	Sion Koliwada	14	21	35
180	Kalidas Nilkanth Kolambkar	INC	Wadala	24	36	60
181	Sada Sarvankar	SS	Mahim	2	3	5
182	Sunil Govind Shinde	SS	Worli	15	41	56
183	Ajay Choudhari	SS	Shivadi	13	20	33
184	Waris Pathan	AIMEIM	Byculla	5	3	8
185	Mangal Prabhat Lodha	BJP	Malabar Hill	11	23	34
186	Amin Patel	INC	Mumbadevi	47	112	159
187	Raj K. Purohit	BJP	Colaba	6	7	13
Total				**440**	**1,053**	**1,493**

Inference:

MLA Aslam Shaikh (52) followed by MLA Amin Patel (47) asked the most number of questions related to health in the city, while MLA Ram Kadam asked none.

XII. Ward-wise Occurrence of Diseases

Table 36: Availability of Government Health Facilities and Type of Health Facilities Accessed.

Ward	Population Census 2011	Slum Population (in %)[37]	No. of Government Hospitals	Available Government Dispensaries	Density of government dispensaries to population	Type of health facilities accessed by the population*		
						% of population accessing public hospitals/ dispensaries	% of population accessing private hospitals/ dispensaries	% of population accessing both private and government hospitals/ dispensaries
A	1,85,014	34%	4	6	30,836	36%	64%	0%
B	1,27,290	11%	0	5	25,458	60%	40%	0%
C	1,66,161	-	0	5	33,232	72%	24%	4%
D	3,46,866	10%	0	8	43,358	38%	62%	0%
E	3,93,286	20%	6	12	32,774	64%	36%	0%
F/N	5,29,034	58%	2	7	75,576	40%	59%	1%
F/S	3,60,972	26%	4	9	40,108	64%	36%	0%
G/N	5,99,039	32%	0	10	59,904	53%	47%	0%
G/S	3,77,749	21%	1	14	26,982	57%	43%	0%
H/E	5,57,239	42%	1	8	69,655	53%	45%	2%
H/W	3,07,581	39%	1	5	61,516	57%	44%	0%
K/E	8,23,885	49%	2	12	68,657	45%	55%	0%
K/W	7,48,688	15%	1	7	1,06,955	55%	44%	0%
L	9,02,225	54%	1	16	56,389	60%	40%	0%
M/E	8,07,720	30%	1	11	73,429	57%	43%	0%
M/W	4,11,893	53%	1	6	68,649	37%	63%	0%
N	6,22,853	62%	2	9	69,206	46%	54%	0%
P/N	9,41,366	54%	3	11	85,579	26%	71%	3%
P/S	4,63,507	57%	1	2	2,31,754	46%	54%	0%
R/C	5,62,162	19%	2	8	70,270	43%	53%	4%
R/N	4,31,368	51%	0	4	1,07,842	55%	44%	1%
R/S	6,91,229	58%	2	7	98,747	61%	39%	0%
S	7,43,783	72%	1	8	92,973	38%	62%	0%
T	3,41,463	33%	3	3	1,13,821	40%	58%	2%
Total	**1,24,42,373**	**42%**	**39**	**193**	**64,468**	**50%**	**49%**	**1%**

Note: (*) Household Survey

Inference:

P/S ward has only 1 government hospital and 2 government dispensaries for a population of 4,63,507 with 54% of its households accessing private health facilities. While in wards such as L, G/S and E which have more dispensaries, 60%, 57% and 64% of the population respectively accesses public health care.

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

Table 37: Ward wise Malaria Data from 2014 to 2018

Ward*	Population 2011	2014	2015	2016	2017	2018
A	1,85,014	199	160	134	248	430
B	1,27,290	31	26	31	27	80
C	1,66,161	119	86	84	168	137
D	3,46,866	93	104	62	48	33
E	3,93,286	118	43	93	107	148
F/N	5,29,034	194	169	151	114	86
F/S	3,60,972	986	842	481	838	679
G/N	5,99,039	284	165	173	125	126
G/S	3,77,749	70	74	154	94	416
H/E	5,57,239	199	138	146	103	90
H/W	3,07,581	193	123	120	100	114
K/E	8,23,885	379	343	168	180	142
K/W	7,48,688	139	139	165	268	235
L	9,02,225	298	235	150	126	82
M/E	8,07,720	155	87	204	62	70
M/W	4,11,893	62	55	36	45	33
N	6,22,853	191	151	97	89	56
P/N	9,41,366	88	87	166	170	90
P/S	4,63,507	50	52	26	34	24
R/C	5,62,162	105	95	90	54	34
R/N	4,31,368	74	84	69	45	28
R/S	6,91,229	101	94	94	112	36
S	7,43,783	122	121	132	90	50
T	3,41,463	38	39	52	50	34
Total Municipal Dispensaries		4,288	3,512	3,078	3,297	3,253
Municipal Hospital		10,082	9,526	6,802	6,529	6,670
State Hospital		861	1,179	1,309	927	1,347
Other Government Hospital		886	760	638	567	529
Total	**1,24,42,373**	**16,117**	**14,977**	**11,827**	**11,320**	**11,799**

Note: (*) Ward wise data represents number of cases from municipal and police dispensaries in the ward.

Inference:

- F/S ward has reported the highest number of malaria cases (679) in government dispensaries in 2018.
- Out of total malaria cases, 57% have been reported in municipal hospitals while 28% in municipal dispensaries.

Table 38: Ward wise Dengue Data from 2014 to 2018

Ward*	Population 2011	2014	2015	2016	2017	2018
A	1,85,014	47	137	42	36	19
B	1,27,290	52	42	25	25	27
C	1,66,161	18	14	26	45	52
D	3,46,866	35	53	91	34	25
E	3,93,286	25	42	3	6	11
F/N	5,29,034	53	28	35	47	49
F/S	3,60,972	34	22	11	20	7
G/N	5,99,039	64	35	18	23	26
G/S	3,77,749	0	1	9	13	46
H/E	5,57,239	22	67	0	21	59
H/W	3,07,581	12	13	16	73	30
K/E	8,23,885	66	187	235	184	205
K/W	7,48,688	34	11	2	0	0
L	9,02,225	11	40	147	21	19
M/E	8,07,720	24	2	0	21	23
M/W	4,11,893	3	3	27	0	6
N	6,22,853	38	155	64	6	57
P/N	9,41,366	12	56	3	12	62
P/S	4,63,507	2	15	3	2	0
R/C	5,62,162	19	31	53	37	33
R/N	4,31,368	23	131	111	106	154
R/S	6,91,229	72	39	37	42	102
S	7,43,783	28	308	95	52	115
T	3,41,463	1	4	0	5	26
Total Municipal Dispensaries		695	1,436	1,053	831	1,153
Municipal Hospital		7,847	11,592	13,039	11,276	15,926
State Hospital		1,515	1,788	2,541	1,674	1,471
Other Government Hospital		364	525	890	804	966
Total	**1,24,42,373**	**10,421**	**15,341**	**17,523**	**14,585**	**19,516**

Note: (*) Ward wise data represents number of cases from municipal and police dispensaries in the ward.

Inference:

- K/E ward has reported the highest number of dengue cases (205) in government dispensaries in 2018.
- Out of total cases, 82% have been reported in municipal hospitals while 6% in municipal dispensaries.

Table 39: Ward wise Tuberculosis Data from 2014 to 2018

Ward*	Population 2011	2014	2015	2016	2017	2018
A	1,85,014	366	340	201	282	268
B	1,27,290	117	104	249	73	106
C	1,66,161	141	146	86	77	96
D	3,46,866	246	221	188	186	178
E	3,93,286	589	425	412	280	200
F/N	5,29,034	304	418	171	154	191
F/S	3,60,972	359	280	180	196	200
G/N	5,99,039	412	386	486	428	521
G/S	3,77,749	194	389	231	242	258
H/E	5,57,239	522	544	638	625	558
H/W	3,07,581	246	224	216	187	187
K/E	8,23,885	679	538	351	264	247
K/W	7,48,688	271	252	176	206	169
L	9,02,225	1,188	1,338	1,406	821	768
M/E	8,07,720	113	93	146	156	212
M/W	4,11,893	146	206	129	113	199
N	6,22,853	206	178	116	96	139
P/N	9,41,366	231	228	265	236	607
P/S	4,63,507	69	46	22	11	16
R/C	5,62,162	206	175	196	192	221
R/N	4,31,368	109	157	177	179	247
R/S	6,91,229	556	419	478	268	79
S	7,43,783	557	494	327	483	425
T	3,41,463	366	229	118	135	147
Total Municipal Dispensaries		8,193	7,830	6,965	5,890	6,239
Municipal Hospital		33,131	31,614	37,170	45,963	40,274
State Hospital		1,445	1,948	1,902	2,727	2,228
Other Government Hospital		493	446	446	565	501
Total	**1,24,42,373**	**43,262**	**41,838**	**46,483**	**55,145**	**49,242**

Note: (*) Ward wise data represents number of cases from municipal and police dispensaries in the ward.

Inference:

- L ward has reported the highest number of tuberculosis cases (768) in government dispensaries in 2018.
- Out of total cases, 82% have been reported in municipal hospitals while 13% in municipal dispensaries.

Table 40: Ward wise Diarrhoea Data from 2014 to 2018

Ward*	Population 2011	2014	2015	2016	2017	2018
A	1,85,014	2,101	1,675	1,379	1,684	2,295
B	1,27,290	1,901	1,610	1,173	1,176	1,369
C	1,66,161	2,924	2,842	2,789	2,837	3,110
D	3,46,866	5,145	6,359	6,904	2,617	551
E	3,93,286	2,586	3,245	2,931	3,755	3,806
F/N	5,29,034	1,611	1,704	2,186	2,889	2,894
F/S	3,60,972	3,682	4,016	4,967	4,337	4,088
G/N	5,99,039	2,856	3,284	5,455	6,715	5,680
G/S	3,77,749	4,850	5,271	5,675	5,628	7,908
H/E	5,57,239	6,938	7,433	6,371	6,462	5,039
H/W	3,07,581	1,963	2,303	1,741	1,422	1,481
K/E	8,23,885	10,316	9,054	6,027	5,772	6,087
K/W	7,48,688	3,048	2,504	1,876	2,312	2,216
L	9,02,225	9,958	12,057	12,009	12,028	11,505
M/E	8,07,720	4,462	11,562	6,396	4,561	5,758
M/W	4,11,893	1,931	1,961	1,792	1,253	1,594
N	6,22,853	8,211	9,891	8,383	4,567	4,902
P/N	9,41,366	3,016	3,303	3,393	1,946	3,225
P/S	4,63,507	1,046	688	676	688	688
R/C	5,62,162	3,849	3,959	2,591	3,512	3,926
R/N	4,31,368	746	2,078	1,868	2,164	1,826
R/S	6,91,229	1,473	1,724	1,559	1,204	163
S	7,43,783	3,750	5,091	4,192	5,543	6,328
T	3,41,463	2,049	2,897	2,139	1,512	1,759
Total Municipal Dispensaries		90,412	1,06,511	94,472	86,584	88,198
Municipal Hospital		26,608	9,573	7,798	6,747	8,318
State Hospital		1,158	1,325	1,691	1,985	2,064
Other Government Hospital		1,070	1,037	962	884	864
Total	**1,24,42,373**	**1,19,248**	**1,18,446**	**1,04,923**	**96,200**	**99,444**

Note: (*) Ward wise data represents number of cases from municipal and police dispensaries in the ward.

Inference:

- L ward has reported the highest number of diarrhoea cases (11,505) in government dispensaries in 2018.
- Out of total cases, 8% have been reported in municipal hospitals while 89% in municipal dispensaries.

Table 41: Ward wise Diabetes Data from 2014 to 2018

Ward*	Population 2011	2014	2015	2016	2017	2018
A	1,85,014	398	427	570	708	526
B	1,27,290	374	711	750	832	544
C	1,66,161	117	116	367	426	863
D	3,46,866	222	1,488	2,170	2,127	1,800
E	3,93,286	555	726	735	907	765
F/N	5,29,034	993	867	743	808	641
F/S	3,60,972	61	110	303	220	166
G/N	5,99,039	1,731	2,700	1,574	1,174	905
G/S	3,77,749	112	285	594	576	652
H/E	5,57,239	317	528	1,087	1,143	1,435
H/W	3,07,581	104	194	157	176	179
K/E	8,23,885	1,064	1,039	1,174	982	1,173
K/W	7,48,688	1,012	570	1,391	1,436	776
L	9,02,225	1,141	1,279	1,395	1,441	1,831
M/E	8,07,720	419	1,487	1,979	1,259	1,243
M/W	4,11,893	150	217	253	220	265
N	6,22,853	574	590	2,117	866	605
P/N	9,41,366	105	506	472	567	730
P/S	4,63,507	118	158	125	80	81
R/C	5,62,162	187	393	1,160	1,089	1,179
R/N	4,31,368	134	1,093	400	380	337
R/S	6,91,229	7,126	2,660	1,436	1,684	1,457
S	7,43,783	287	1,475	1,192	792	590
T	3,41,463	244	136	131	133	92
Total Municipal Dispensaries		17,545	19,755	22,275	20,026	18,835
Municipal Hospital		25,454	10,885	4,412	4,494	5,260
State Hospital		1,063	846	907	2,918	3,654
Other Government Hospital		1,595	3,612	5,272	3,867	3,731
Total	**1,24,42,373**	**45,657**	**35,098**	**32,866**	**31,305**	**31,480**

Note: (*) Ward wise data represents number of cases from municipal and police dispensaries in the ward.

Inference:

- L ward has reported the highest number of diabetes cases (1,831) in government dispensaries in 2018.
- Out of total cases, 17% have been reported in municipal hospitals while 60% in municipal dispensaries.

Table 42: Ward wise Hypertension Data from 2014 to 2018

Ward*	Population 2011	2014	2015	2016	2017	2018
A	1,85,014	1,304	1,322	1,573	1,342	1,083
B	1,27,290	295	223	465	313	505
C	1,66,161	425	517	530	618	1,100
D	3,46,866	305	1,947	2,153	2,568	2,025
E	3,93,286	545	1,480	1,621	597	810
F/N	5,29,034	1,120	1,537	1,762	1,208	946
F/S	3,60,972	167	245	585	324	247
G/N	5,99,039	1,328	1,987	1,950	1,939	1,397
G/S	3,77,749	263	541	746	746	780
H/E	5,57,239	465	1,147	1,388	1,365	1,400
H/W	3,07,581	136	158	145	165	157
K/E	8,23,885	1,286	1,926	1,770	1,388	1,528
K/W	7,48,688	1,196	1,258	2,260	2,154	1,126
L	9,02,225	2,160	1,887	1,695	1,566	1,909
M/E	8,07,720	681	1,216	2,113	1,527	1,499
M/W	4,11,893	239	271	278	177	298
N	6,22,853	731	649	897	1,063	609
P/N	9,41,366	113	238	418	543	543
P/S	4,63,507	154	134	104	76	76
R/C	5,62,162	601	737	1,217	1,060	1,151
R/N	4,31,368	105	540	237	230	237
R/S	6,91,229	2,814	1,733	1,271	1,367	1,448
S	7,43,783	536	995	1,350	646	574
T	3,41,463	226	241	270	182	168
Total Municipal Dispensaries		17,195	22,929	26,798	23,164	21,616
Municipal Hospital		16,462	8,114	4,534	5,152	5,919
State Hospital		889	949	1,087	3,055	3,734
Other Government Hospital		1,815	4,281	5,499	3,302	2,701
Total	**1,24,42,373**	**36,361**	**36,273**	**37,918**	**34,673**	**33,970**

Note: (*) Ward wise data represents number of cases from municipal and police dispensaries in the ward.

Inference:

- D ward has reported the highest number of hypertension cases (2,025) in government dispensaries in 2018.
- Out of total cases, 17% have been reported in municipal hospitals while 64% in municipal dispensaries.

Annexure 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 & 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 & 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		

Sr. No.	Ward	Municipal Dispensaries	Sr. No.	Ward	Municipal Dispensaries
1	A	Colaba Municipal Dispensary	93	K/W	Banana Leaf Dispensary*
2	A	Head Office (H.O.) Dispensary	94	K/W	Juhu Dispensary
3	A	Maruti Lane Dispensary	95	K/W	Millat Nagar Dispensary*
4	A	Saboo Siddhique Road Dispensary, Paltan Road (S.S. Road)	96	K/W	N.J. Wadiya Dispensary
5	A	Shahid Bhagat Singh Road Dispensary	97	K/W	Oshivara Dispensary
6	B	Jail Road Municipal Dispensary	98	K/W	Vileparle Market Dispensary
7	B	Jail Road Unani Dispensary	99	K/W	Varsova Dispensary
8	B	Kolsa Mohalla Unani Dispensary	100	L	Asalpha Village Dispensary
9	B	S.V.P. Road Municipal Dispensary	101	L	Bail Bazar Mun. Dispensary
10	B	Walpakhadi Muncipal Dispensary	102	L	Bibi Fatima Municipal Dispensary
11	C	Chandanwadi Dispensary	103	L	Budda Colony Dispensary
12	C	Duncan Road Dispensary	104	L	Chandivali M.N.P. Dispensary
13	C	Ghogari Mohalla Dispensary	105	L	Christain Municipal Dispensary*
14	C	Panjarapol Mun. Dispensary	106	L	Chunnabhatti Dispensary
15	C	Thakurdwar Dispensary	107	L	Himalaya Society Municipal Dispensary*
16	D	Banganga Municipal Dispensary	108	L	Kajupada Muncipal Dispensary
17	D	Nana Chowk Dispensary	109	L	Mohill Village Dispensary
18	D	R.S. Nimkar Marg Dispensary	110	L	Nahar Amrut Shakti Dispensary
19	D	Raja Rammohan Roy Marg Dispensary (R.R.R Marg)	111	L	Nehru Nagar Dispensary
20	D	Tardeo Flat Municipal Dispensary	112	L	Qureshi Nagar Dispensary
21	D	Tulsiwadi Dispensary (Bane Compound)	113	L	Safad Pool Dispensary
22	E	D.P.Wadi Municipal Dispensary	114	L	Tilak Nagar Dispensary
23	E	ES Pathanwala Municipal Dispensary	115	M/E	Anik Nagar Dispensary*
24	E	Gaurabhai Dispensary	116	M/E	Ayodhya Nagar Dispensary
25	E	Huzaria Street Dispensary	117	M/E	Deonar Colony Dispensary
26	E	Motishah Dispensary	118	M/E	Gavanpada Dispensary
27	E	N.M. Joshi Marg Dispensary	119	M/E	Kamala Raman Nagar Municipal Dispensary/Baiganwadi Dispensary
28	E	R.J. Compound Dispensary*	120	M/E	Lallubhai Compound Municipal Dispensary*
29	E	Siddarth Nagar Dispensary	121	M/E	Maharashtra Nagar Municipal Dispensary
30	E	Souter Street Dispensary*	122	M/E	R.B.K. International Municipal Dispensary*
31	E	Tadwadi Municipal Dispensary	123	M/E	L.U Gadkar Vashi Naka Dispensary
32	E	Tank Square Garden Municipal Dispensary	124	M/E	New Bainganwadi Dispensary

Sr. No.	Ward	Municipal Dispensaries	Sr. No.	Ward	Municipal Dispensaries
33	E	Nawab Tank Dispensary	125	M/E	Trombay Municipal Dispensary
34	F/N	Antop Hill Municipal Dispensary	126	M/W	Chembur Colony Dispensary
35	F/N	Korba Mithagar Dispensary	127	M/W	Chembur Naka Municipal Dispensary*
36	F/N	L. B. Shastri Dispensary	128	M/W	Labour Camp Dispensary
37	F/N	Raoli Camp Dispensary	129	M/W	Lal Dongar Dispensary
38	F/N	Transit Camp Dispensary*	130	M/W	Mahul Dispensary
39	F/N	Wadala Dispensary	131	M/W	Mahul SRA Dispensary
40	F/S	A.D. Marg Dispensary	132	N	Kirol Dispensary
41	F/S	Abhuyday Nagar Dispensary	133	N	Pant Nagar Dispensary
42	F/S	Ambewadi Dispensary	134	N	Parksite Dispensary
43	F/S	Gautam Nagar Dispensary	135	N	Parshiwadi Dispensary
44	F/S	Kidwai Nagar Dispensary*	136	N	Ramabai Colony Dispensary
45	F/S	Naigaon Dispensary	137	N	Sainath Nagar Dispensary
46	F/S	Parel Dispensary	138	N	Sarvodaya Pantnagar Dispensary*
47	F/S	Sewree Cross Road Dispensary	139	N	B. Nath Pai Nagar, Garodia Nagar Dispensary (Started from June 2017)*
48	F/S	Triveni Sadan Dispensary	140	P/N	Choksey Municipal Dispensary
49	G/N	Dharavi Main Road Dispensary*	141	P/N	Goshala Municipal Dispensary
50	G/N	Dharavi Transit Camp Dispensary	142	P/N	Kurar Village Municipal Dispensary
51	G/N	Gulbai Dispensary	143	P/N	Malvani Municipal Dispensary
52	G/N	Kumbharwada Dispensary	144	P/N	Manori Dispensary
53	G/N	Matunga Labour camp Dispensary	145	P/N	Nimani Municipal Dispensary
54	G/N	Pilla Bunglow Dispensary	146	P/N	Pathanwadi Dispensary
55	G/N	Shahu Nagar Dispensary	147	P/N	Rathodi Village Dispensary
56	G/N	Welfare Camp (Shri Cinema) Dispensary	148	P/N	Riddhi Garden Mun Dispensary*
57	G/N	Welkarwadi Dispensary	149	P/N	School Road Municipal Dispensary
58	G/S	B.D.D. Chawl Dispensary	150	P/N	Valnai Municipal Dispensary
59	G/S	Beggar Home Dispensary	151	P/S	Chincholi Square Garden Dispensary*
60	G/S	Curry Road Dispensary	152	P/S	Topiwala Lane Dispensary
61	G/S	Fergusson Road Dispensary	153	R/C	Charkop Sector 5 Dispensary
62	G/S	Jijamata Nagar K. Moses Dispensary	154	R/C	Eksar Road Dispensary*
63	G/S	Maharashtra High school Compound Dispensary	155	R/C	Gorai MHADA Dispensary
64	G/S	Prabhadevi Dispensary	156	R/C	Gorai Village Dispensary
65	G/S	Prbhadevi Ayurvedic Municipal Dispensary	157	R/C	K.K. Municipal Dispensary
66	G/S	Sasmira Dispensary	158	R/C	Kajupada Dispensary

Sr. No.	Ward	Municipal Dispensaries	Sr. No.	Ward	Municipal Dispensaries
67	G/S	Senapati Bapat Marg, Hilly Cross, 633 Dispensary	159	R/C	M.H.B. Dispensary
68	G/S	Welfare Center Dispensary	160	R/C	Magathane Dispensary
69	G/S	Worli Koliwada Dispensary*	161	R/N	Anand Nagar Municipal Dispensary*
70	G/S	Zandu Ayurvedic Mun. Dispensary	162	R/N	L.T. Road Dispensary
71	H/E	Bharat Nagar Dispensary	163	R/N	Shastri Nagar Municipal Dispensary*
72	H/E	Jawahar Nagar Dispensary	164	R/N	Y.R. Tawade Nagar Dispensary*
73	H/E	Kalina Dispensary*	165	R/S	Akurli Road Municipal Dispensary
74	H/E	Kherwadi Dispensary	166	R/S	Babrekar Nagar Municipal Dispensary
75	H/E	Kolekalyan Dispensary*	167	R/S	Charcop Sector- I Muncipal Dispensary
76	H/E	Prabhat Colony Municipal Dispensary	168	R/S	Dahanuwadi Municipal Dispensary
77	H/E	S.V. Nagar Dispensary	169	R/S	Hanuman Nagar Dispensary*
78	H/W	G.N. Station Road Dispensary	170	R/S	New Centenary Dispensary
79	H/W	Guru Nanak (Dr. Ambedkar Road) Dispensary	171	S	Kanjur Village Dispensary
80	H/W	Khar-Danda Dispensary	172	S	M.V. R Shinde Dispensary
81	H/W	Old Khar Dispensary*	173	S	Shivaji Talav Mumbai Dispensary*
82	H/W	Shastri Nagar Linking Road Dispensary	174	S	Tagor Nagar Dispensary
83	K/E	Caves Road Dispensary	175	S	Tembhipada Shivaji Nagar Dispensary
84	K/E	Gundawali Dispensary	176	S	Tirandaz Village Dispensary
85	K/E	Hari Nagar Dispensary	177	S	Tulshetpada Dispensary
86	K/E	Koldongari Dispensary	178	S	Nahur East Dispensary*
87	K/E	Marol Dispensary	179	T	Dindayal Upadhyay (DDU) Dispensary
88	K/E	Natwar Nagar Dispensary	180	T	Mulund Colony Dispensary*
89	K/E	Paranjape Dispensary	181	T	P.J.K. Dispensary
90	K/E	Sambhaji Nagar Dispensary			
91	K/E	Sambhji Nagar Ayurvedic Dispensary			
92	K/E	Sunder Nagar Dispensary*			

Note: *(*) Upgraded dispensaries with laboratories. The total number of upgraded dispensaries is 30.*

Annexure 2: Registration of Birth and Death 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).*

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 & 4A according to occurrence of death, while entering the death event.
- Deputy Director is responsible for compilation, coding & 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

FORM NO. 4

(See Rule 7)

MEDICAL CERTIFICATE OF CAUSE OF DEATH

(Hospital In-patients. Not to be used for still births)

To be sent to Registrar along with Form No. 2 (Death Report)

Name of the Hospital .....

I hereby certify that the person whose particulars are given below died in the hospital in Ward No.....

on ..... at .....AM/PM

NAME OF DECEASED					
Sex	Age at Death				For use of Statistical Office
	If 1 year or more, age in years	If less than 1 year, age in month	If less than one month, age in days	If less than one day, age in hours	
1. Male 2. Female					

CAUSE OF DEATH		Interval between onset and death approx.
I Immediate cause State the disease, injury or complication which caused death, not the mode of dying such as heart failure, asthenia, etc.	(a) ..... due to (or as a consequences of)	
Antecedent cause Morbid conditions, if any, giving rise to the above cause, stating underlying conditions last	(b) ..... due to (or as a consequences of)	
II Other significant conditions contributing to the death but not related to the disease or condition causing it	(c)	

Manner of Death How did the injury occur?

1. Natural 2. Accident 3. Suicide 4. Homicide
5. Pending investigation

If deceased was a female, was pregnancy the death associated with? 1. Yes 2. No

If yes, was there a delivery? 1. Yes 2. No

Name and signature of the Medical Attendant certifying the cause of death

Date of verification.....

SEE REVERSE FOR INSTRUCTIONS

(To be detached and handed over to the relative of the deceased)

Certified that Shri/Smt/Kum..... S/W/D of Shri .....

R/O ..... was admitted to this hospital on .....

and expired on .....

Doctor .....
(Medical Supdt.
Name of Hospital)

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'.

Annexure 3: Reply of MCGM to cause of death data

BRIHANMUMBAI MAHANAGARPALIKA
PUBLIC HEALTH DEPARTMENT
HO/144/MIS dtd.

From:
Dr.(Smt.)Pranita Tipre
Assistant Health Officer
Public Information Officer

RIGHT TO INFORMATION

To:
Mr.Eknath Pawar
Praja Foundation, Victoria Building,
1st floor, Agairy Lane,
Off. Mint Road, Fort,
Mumbai 400 001

Sub : Right to Information Act-2005.
Your application dtd.13.7.2016
(information about number of death and cause of death registered in all 24 wards of Mumbai)

Ref : १. राआशिवसंवि/आस्था/माहितीअधिकार/२७५८-५९/१६ दि.१९.७.२०१६
२. आमाजिआ/कक्ष -८४/माहितीअधिकार /८१४३-८१४६ /१६ दि.२३.७.२०१६

Please refer to your application addressed to Dy.Director, Health Services , Pune dtd.13.7.2016 under Right To Information Act 2005 on the above subject matter The same application has been received in Public Health Department, Head Office F/South Ward office on 1.8.2016.

Sr.No.	Subject	Information
1	Please provide us with the information about number of death registered in all 24 wards under your jurisdiction, please also provide the causes of the death with gender wise, age wise, ICD CODE wise, ward-wise and month wise from 1st January 2016 to 31st March 2016 seperately. Hopefully this information is available in softcopy. so please provide us with a softcopy.	Information about the number of deaths registered in all 24 wards of MCGM as required by you. "The Causes of Deaths gender wise , age wise, cause wise and month wise is generated under CRS System.However, ICD -10 Codewise 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(0) figures. This typical problem has already been communicated to Office of Registrar General and Census Commissioner of India via email. The Matter will also be discussed during monthly review meeting at Dy.Director of Health Services and Dy.Registrar of Birth and Death, Maharashtra State on 19th August 2016 as the CRS Software is not developed by MCGM.

Reply of Vital Statistics Division, Central Government

No.4/15/2017-VS-(CRS)/385 Speed Post

भारतसरकार
GOVERNMENT OF INDIA
गृहमंत्रालय
MINISTRY OF HOME AFFAIRS
भारत के महारजिस्ट्रार का कार्यालय
जीवनांकप्रभाग, पश्चिमी खण्ड-1, रामकृष्णपुरम्, नईदिल्ली - 110066
OFFICE OF THE REGISTRAR GENERAL, INDIA
V.S. Division, West Block –I, R.K. Puram, New Delhi – 110066
Tele: 26100678 E-mail – sandhya.singh@nic.in ajayk.rgi@nic.in Dated: 04.08.2017

To,

Mr. EknathPawar
Praja Foundation, Victoria Building
1st Floor, Agairy lane, Off. Mint Road, Fort
MUMBAI- 400001

Subject: Petition of Shri Eknath Pawar, Mumbai forwarded by Ministry of Home Affairs vide O.M. No.15012/01/2017-CSR.III (Vol. II) dated 28-07-2017 regarding information on registration of death in Mumbai.

Sir,

This is in reference to aforesaid Ministry of Home Affairs O.M. dated 28-07-2017 through which a PMO's reference no. PMOPG/D/2017/0300410 dated 23-06-2017 has been forwarded to this office along with your application (dated NIL) addressed to the Hon'ble Prime Minister of India on the above mentioned subject.

2. In this connection, it is informed that table D-10 under CRS software, shows the sex wise-age group wise data on specific cause of death in a prescribed format (based upon ICD-10). In addition to this it is also informed that Annual Report on Medical Certification of Cause of Death (MCCD), published data in Table-10 comprising total percentage distribution of Medically Certified Deaths by Sex and major cause groups of all States/ UTs. Further, such data for particular State is also released in the said report. In reference to the matter raised by you, it is clarified that the facility to view the information on cause of death at district and below district (Registration unit) level is not available at present in the existing CRS portal.

3. In this regard, this is bring to your notice that in order to build a robust system of registration of births and deaths in the country, this office has taken the initiative to revamp the existing Civil Registration System (CRS) through an IT enabled backbone under which the option/facility of viewing the cause of death information at district and below district level and other relevant issues will considered.

Yours faithfully

(Sandhya Singh)
Dy. Registrar General (CRS)

प्रत्येक जन्म एवम् मृत्यु का पंजीकरण सुनिश्चित करें/
"Ensure Registration of Every Birth and Death"

Annexure 4: Socio Economic Classification (SEC) Note and Survey Methodology

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*

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 227 wards. The target Group for the study was:
  - ✓ Both Males & Females
  - ✓ 18 years and above
  - ✓ Belonging to that particular ward.
- 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 meet the respondent within a ward, following sampling process was followed:
  - ✓ 5 prominent areas in the ward were identified as the starting point
  - ✓ In each starting point about 20 individuals were selected randomly and the questionnaire was administered with them.
- Once the survey was completed, sample composition of age & 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 20,187.

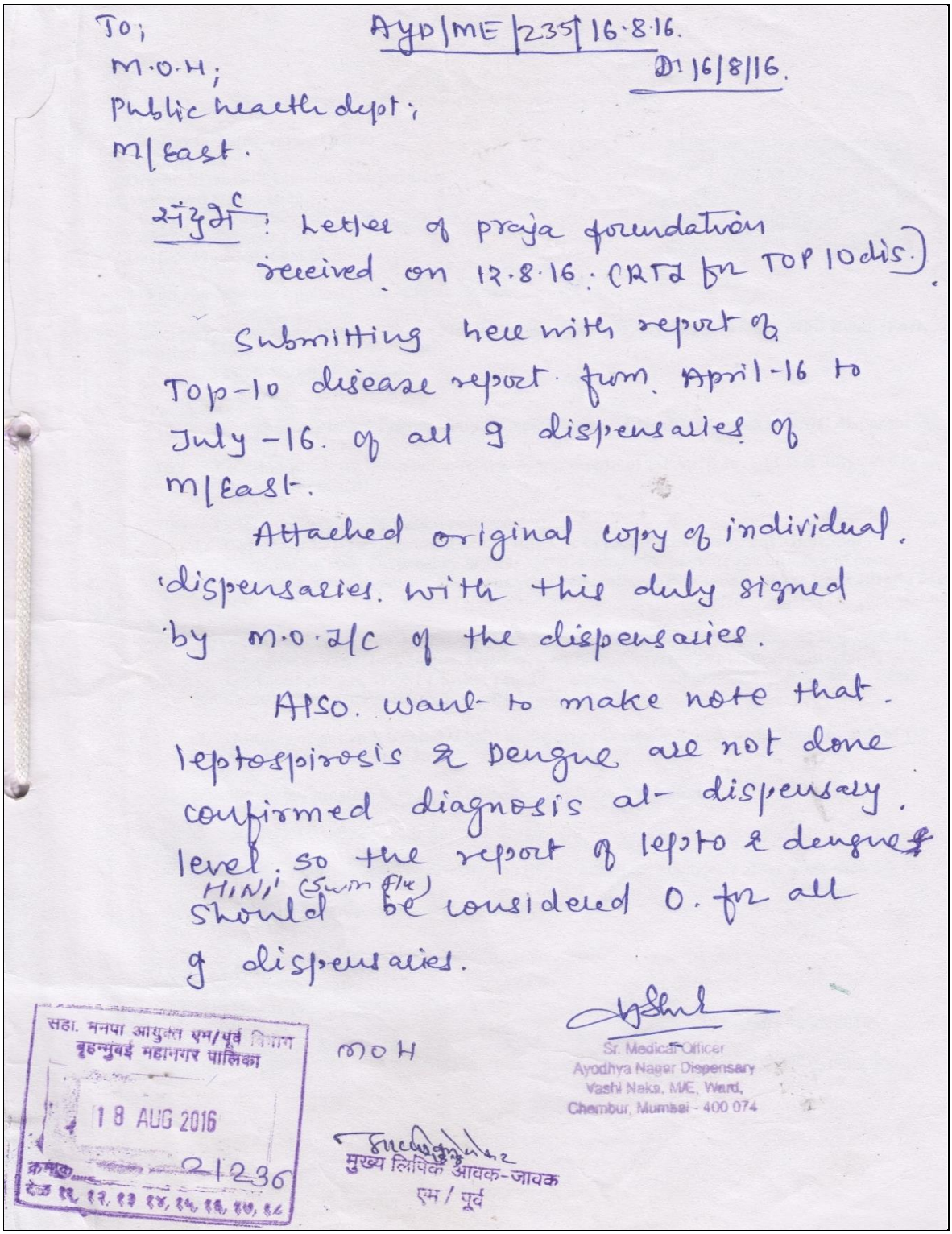
Annexure 5: Guidelines for dispensaries

Ward	Ward Name	Population census 2011	Dispensary (1 for 50,000)[38]	Dispensary (1 For 15,000)[39]	Available Municipal Dispensaries
A	Colaba	1,85,014	4	12	5
B	Sandhurst	1,27,290	3	8	5
C	Marine Lines	1,66,161	3	11	5
D	Grant Road	3,46,866	7	23	6
E	Byculla	3,93,286	8	26	12
F/N	Matunga	5,29,034	11	35	6
F/S	Parel	3,60,972	7	24	9
G/N	Dadar	5,99,039	12	40	9
G/S	Elphinstone	3,77,749	8	25	13
H/E	Santa Cruz	5,57,239	11	37	7
H/W	Bandra	3,07,581	6	21	5
K/E	Andheri East	8,23,885	16	55	10
K/W	Andheri West	7,48,688	15	50	7
L	Kurla	9,02,225	18	60	15
M/E	Govandi	8,07,720	16	54	11
M/W	Chembur	4,11,893	8	27	6
N	Ghatkopar	6,22,853	12	42	8
P/N	Malad	9,41,366	19	63	11
P/S	Goregaon	4,63,507	9	31	2
R/C	Borivali	5,62,162	11	37	8
R/N	Dahisar	4,31,368	9	29	4
R/S	Kandivali	6,91,229	14	46	6
S	Bhandup	7,43,783	15	50	8
T	Mulund	3,41,463	7	23	3
	Total	**1,24,42,373**	**249**	**830**	**181**

[38] The Rindani committee report of 1977 suggested that there has to be one dispensary for a population of 50,000 or 1.5 km radius.

[39] The National Urban Health Mission (NUHM) and National Building Code (NBC) suggests that one dispensary is required for a population of 15,000.

Annexure 6: Letter from Senior Medical Officer M/E ward Regarding Dengue Suspected Cases



To;
M.O.H;
Public health dept;
M/East.

Ayo/ME/235/16.8.16.
Dt 16/8/16.

संदर्भ: Letter of praja foundation received on 12.8.16: (RTI for TOP 10 dis.)

Submitting here with report of Top-10 disease report from April-16 to July-16. of all 9 dispensaries of M/East.

Attached original copy of individual dispensaries with this duly signed by M.O.I/C of the dispensaries.

Also. want to make note that leptospirosis & Dengue are not done confirmed diagnosis at dispensary level. so the report of lepto & dengue & H1N1 (Swine flu) should be considered 0. for all 9 dispensaries.

सहा. मनपा आयुक्त एम/पूर्व विभाग
बृहन्मुंबई महानगर पालिका
18 AUG 2016
क्रमांक 2230

MOH

मुख्य लिपिक आवक-जावक
एम / पूर्व

Sr. Medical Officer
Ayodhya Nagar Dispensary
Vashi Naka, M/E, Ward,
Chembur, Mumbai - 400 074

Annexure 7: Letter from Senior Medical officer of K/W ward Regarding Dengue Suspected Cases

प्रति,
वैद्यकीय आरोग्य अधिकारी
के/प

डेंग्यू रॅपिड टेस्ट किट
वापरुन confirmed
diagnosed cases सापडत नाहीत
हि टेस्ट संशयित रुग्णां
मधील शक्यता दाखवते.
confirm करण्यासाठी ELISA
व PCR करणे आवश्यक
असते.
सदरी डेंग्यू रॅपिड टेस्ट किट
वापरुन रॅपिड अँटिजेन
पॉझिटिव्ह आलेल्या व वापरलेल्या
किट यांचे दवाखाना नुसार अहवाल
सोबत जोडत आहे.
आपल्या माहितीसाठी सादर.

[illegible signature]
20/8/13.
Senior Medical Officer
K/W Ward,
N. J. Wadia Mun Dispensary
S. V. Road Opp Rly. Stn
Andheri (W), Mumbai - 58

Annexure A

[See rule 3]

Format for obtaining information under the Right to Information Act 2005

To,
Public Information Officer/DEHO TB,
Bawalawadi MCGM Bldg, First Floor,
Dr. B.R. Ambedkar Road, Chinchpokali,
Mumbai- 400012.

1) Full Name of the Applicant: **Mr. Eknath Pawar**

2) Address: **Praja Foundation, Victoria Building, 1st Floor, Agiary Lane, Off Mint Road, Fort, Mumbai -400001**

3) Particular of information: -

(i) Subject matter of information: **List of Dot services providers, personnel sanctioned, TB deaths and available, Tuberculosis cases registered ward wise /TB units 2016 and copies of Supervision Document report.**

(ii) Period to which the information relates: **1st October 2017 to 31st March 2018**

(iii) Description of the information required:

1. **Please provide the new Tuberculosis cases registered and Tuberculosis deaths month wise (Center/ zone/ Ward wise from 1st October 2017 to 31st March 2018)**
2. **Please give us the quarterly/yearly report prepared by TB control cell (1st October 2017 to 31st March 2018)**
3. **Please provide list of new DMCs and any other TB centers. (Edited after 2016)**
4. **Please provide list and number of Community based D.O.T.S providers related to Mumbai. (Edited after 2016)**
5. **Please provide copies of Supervision Document report of all TB units quarterly (1st October 2017 to 31st March 2018).**

4) Whether the information is required by post or in person: **In Person**
5) In case by post (Ordinary, Registered or Speed): **No**
6) Weather the applicant is below poverty line (if yes, attach the photocopy of the proof thereof): **No**
7) Purpose of information is required: **In public interest**

Signature of the applicant
Eknath Pawar (022-22618042 / 9930199110)
Place: **Mumbai** Date: **25/04/2018**
Court fee Stamp of Rs. 10/- affixed

Note: If the above information is available in soft copy, we request you to give it to us in a soft copy.

बृहन्मुंबई महानगरपालिका
उप कार्यकारी आरोग्य अधिकारी (क्षयरोग नियंत्रण विभाग)
27 APR 2018
क.आ.अ./ /क्षय
बृ.मुं.म.पा.कार्यालय, बावलावाडी,
१ला मजला, चिंचपोकळी, मुंबई-१२

Annexure 8: 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.

Annexure 9: Order of Central Information Commission on Cause of Death

CENTRAL INFORMATION COMMISSION
Baba Gang Nath Marg, Munirka,
New Delhi-110067

F. No. **CIC/MHOME/A/2017/102509**

Date of Hearing	:	**31.08.2018**
Date of Decision	:	**12.11.2018**
Appellant/Complainant	:	**Shri Eknath Pawar**
Respondent	:	**CPIO** **Dy. Director-(CRS),** **Registrar General; India** **Through:** Shri Dheeraj Jain Shri Pradeep Kumar Negi
Information Commissioner	:	**Shri Yashovardhan Azad**

Relevant facts emerging from appeal:

RTI application filed on	:	13.07.2016
PIO replied on	:	20.07.2016
First Appeal filed on	:	09.09.2016
First Appellate Order on	:	04.10.2016
2nd Appeal/complaint received on	:	12.01.2017

ORDER

1. Vide RTI application dated 13.07.2016, the appellant sought the following information from Deputy Registrar General, CRS, Vital Statistics Division, New Delhi.:

   Please provide us with the information about number of death registered in all 24 wards of Mumbai, please also provide the Causes of the Death with gender wise, Age wise, ICD CODE wise, ward wise and month wise from 1st January 2016 to 31" March 2016 separately. Hopefully this information is available in softcopy so please provide us a soft copy for the same.

2. The PIO/Dy. Director, VS Divisions, Office of Registrar General, India vide letter dated 20.07.2016 informed that the requested information was not available with the unit and RTI application was transferred to O/o

the Chief Registrar of Births and Deaths, Maharashtra for necessary action.

3. However, despite successive transfers, the information sought did not reach the appellant. This led to filing of the first appeal wherein the appellant spelt his grievance very clearly. The same reads as:

> *Information which was requested under Right to Information application dated 13/07/2016 to Deputy Director & Central Public Information Officer, CRS (Civil Registration System). Every year we receive Cause of Death data for all12 months from all 24 wards of MCGM (Municipal Corporation of Greater Mumbai), in SAP (locally maintained software) format. This year we did not receive this information from the wards/Department from January 2016 to March 2016 as the software was being changed from SAP to centrally managed CRS software; and hence we filed an RTI application at Deputy Director, CRS, Delhi. Our application was forwarded to Director General of Health Services in Mumbai and from there this application was forwarded to MCGM's Public Health Department. Even the Public Health Department of Mumbai said that the information was not available with them as it is being centrally managed at CRS and that they have authority to input data, but they are not being able to generate reports from CRS. We are not satisfied with the Reponses to our application and we are filing this appeal on the ground that our application was not answered, but forwarded to Public Health Department of Mumbai while the data is managed centrally in CRS at Delhi. Instead of forwarding the application, the data should have had been generated from the backend of CRS software. Responsibility for producing answer to the RTI application should have been taken at CRS as it is the central authority where reports of births and deaths are generated centrally. Maintenance of this data is very vital under the Registration of Births and Deaths Act, 1969. We request you to provide us with this data under RTL*

4. The FAA passed the following order:

> *2. In this connection, this is to inform you that under the provision of Section 4 (3) of the Registration of Births and Deaths (RBD) Act, 1969, the Chief Registrar of births and deaths in each State has*

been declared as the Chief Executive Authority for implementation the provision of RBD Act, 1969 and the Rules and order made thereunder. Accordingly, the Chief Registrar is the custodian of the data collected & generated under the civil registration system in the respective State. This office only facilitates the implementation of the RBD Act by unifying & coordinating the activities of Chief Registrar of different States & UTs.

3. It is pertinent to mention that the error reported in the software has now been resolved and the concerned authority should be able to provide the data. Therefore, for obtaining the data, you are requested to contact the Chief Registrar of births and deaths, Maharashtra or District Registrar of births and deaths (District Health Officer), Mumbai or any below a authority as suggested by them.

4. In respect of information sought regarding cause of death and ICD code wise details. You are requested to contact Shri R. B. Singh, Senior Research Officer & CPIO (MCCD) of this office for a suitable reply. His details are given below: rbsingh.rgi@nic.in phone No. 011-26177330.

5. This issues with the approval of First appellate authority.

5. However, the grievance was appellant was not redressed and he approached this Commission on the following grounds:

Information was requested under Right to Information application dated 13-07-2016 to Deputy Registrar General, CRS ORGI-Vital Statistics division. Reply received from their end on 20-01-20fi via letter no. 1A1712015-VS (CRS) RTI. Letter mentioned that the information was not available with the office of Deputy Registrar, CRS because of which it was forwarded to the Chief Registrar of Births and Deaths, Maharashtra. Later I filed an appeal on the ground that information which was requested was not answered, but instead, it was forwarded to the Chief Registrar of Births and Deaths, Maharashtra.

We even raised a point regarding the change in software from SAP to CRS to which we were told that the software issue was resolved and the data was now available with the concerned authority, but despite of appeals and follow ups with Assistant Health Officer (Mumbai) and Deputy Registrar of Health Intelligence and Vital Statistics (EVS), Pune we did not receive the answer.

Our ground to second appeal is that if the cause of death data is maintained centrally under the software of CRS (Civil Registration System), then why our letter is not being answered; but forwarded from Department to department. If PIOs are designated to provide the information under RTI Act 2005 why am I not being able to receive the data in spite of its availability with the CRS. Maintenance of cause of death data is vital under Registration of Birth and Death (RBD) Act 1969, and it has to be made available. RBD Act was formed not only to enter births and deaths, but also for statistical and demographic purpose. My request is to make this document available and accessible.

6. In the course of hearing, the appellant reiterate the aforesaid contention that the office of Registrar General of India is the final aggregator of all statistical reports under the Registration of Birth and Deaths Act, 1969. He asserts that the respondent PIO is duty bound to furnish the information sought. He asserts that due to implementation of newly incorporated software, the earlier local software of data compilation by Municipal bodies in Mumbai was discontinued. He asserts that every authority they have approached to secure the information in question has made some excuse and avoided responsibility to furnish information. He submits that due to introduction of new centrally developed software, the Municipal Corporation of Greater Mumbai is unable to access date of death registration relating to its own territorial jurisdiction. The appellant states to have sought this information in larger public interest on behalf of a NGO engaged in social welfare and elaborated upon difficulty being faced by him for past more than two years.

7. On the other hand, the PIO states that the office of Registrar General, India is an aggregator of data. He submits that states are tasked with the overall implementation under Section 3 of the RBD Act, whereas, the ground level record is maintained by Registrars appointed by respective

states under Section 4. He states that some states are using their own software and there are glitches in compilation of date due to technological incompatibility of different software in use. He further submits that precise cause of deaths is available with district level aggregator of data.

Decision:

8. The Commission finds the present appeal in larger public interest. Non cooperation of software as well as executing agencies cannot be allowed to defeat the larger goal of a welfare state. Software are developed for enhancing work efficiency and not to disintegrate the synergy between various public authorities.

9. It is worthwhile to refer to some of the provisions of the RBD Act, 1969.

> **Section 3. Registrar-General, India.**—(1) The Central Government may, by notification in the Official Gazette, appoint a person to be known as the Registrar-General, India.
>
> (2) The Central Government may also appoint such other officers with such designations as it thinks fit for the purpose of discharging under the superintendence and direction of the Registrar-General, such functions of the Registrar-General under this Act as he may, from time to time, authorise them to discharge.
>
> (3) The Registrar-General may issue general directions regarding registration of births and deaths in the territories to which this Act extends, and shall take steps to co-ordinate and unify the activities of Chief Registrars in the matter of registration of births and deaths and submit to the Central Government an annual report on the working of this Act in the said territories.

10. Section 4 of the RBD Act provides for appointment of Chief Registrars by respective State Govt.

> **Section 4. Chief Registrar.**—(1) The State Government may, by notification in the Official Gazette, appoint a Chief Registrar for the State.

(2) The State Government may also appoint such other officers with such designations as it thinks fit for the purpose of discharging, under the superintendence and direction of the Chief Registrar, such of his functions as he may, from time to time, authorise them to discharge.

(3) The Chief Registrar shall be the chief executive authority in the State for carrying into execution the provisions of this Act and the rules and orders made thereunder subject to the directions, if any, given by the State Government.

(4) The Chief Registrar shall take steps, by the issue of suitable instructions or otherwise, to co-ordinate, unity and supervise the work of registration in the State for securing an efficient system of registration and shall prepare and submit to the State Government, in such manner and at such intervals as may be prescribed, a report on the working of this Act in the State along with the statistical report to in sub-section (2) of section 19.

.....

Section 5. Registration divisions.—The State Government may, by notification in the Official Gazette, divide the territory within the State into such registration divisions as it may think fit and prescribe different rules for different registration divisions.

Section 6. District Registrar.—(1) The State Government may appoint a District Registrar for each revenue district and such number of Additional District Registrars as it thinks fit who shall, subject to the general control and direction of the District Registrar, discharge such functions of the District Registrar as the District Registrar may, from time to time, authorise them to discharge.

(2) The District Registrar shall superintend, subject to the direction of the Chief Registrar, the registration of births and deaths in the district and shall be responsible for carrying into execution in the district the provisions of this Act and the orders of the Chief Registrar issued from time to time for the purposes of this Act.

11. A reading of the scheme of the RBD Act clearly shows that the role of Registrar General, India is to issue general directions and to ensure coordination among various states. The primary task of aggregation of data is vested with Chief Registrar appointed by State Govt. under Section 4. The task is further divided to various other Registrars for respective registration divisions carved out under Section 5.

12. A curios glance on the website http://www.censusindia.gov.in/vital_statistics/CRS/CRS_Division.html shows that the CRS is aggregating data of deaths with corresponding cause of death and has taken an initiative to make a uniform software.

Medical Certification of Cause of Death (MCCD)

The scheme of Medical Certification of Cause of Death (MCCD) under the registration of Births and Deaths (RBD) ACT, 1969 provides on causes of death, a prerequisite to monitoring health trends of the population. Data received in prescribed forms are tabulated as per the National List of Causes of Death based on Tenth Revision of International Classification of Disease (ICD- 10).

As per the Annual Report on "Medical Certification of Cause of Death" for the year 2011, out of the total registered deaths of 48,29,664 in 27 States/UTs, a total of 9,65,992 deaths (5,95,784 Males and 3,70,208 Females) have been reported to be medically certified.

The coverage of MCCD is limited to selected hospitals in urban area. Steps are taken by the states to expand the scope of MCCD to all the medical institutions.

Initiatives

Uniform Software Application for Registration of Births and Deaths: *A software application for online and offline registration of birth and death has been developed. This application covers the entire gamut of the Civil Registration System – Registration of events, Generation of certificates and Generation of Statistical Tables and Reports. The application that is presently available in English is being customized in 13 Indian languages.*

13. Despite the contention of PIO that the CRS Division of Registrar General, India cannot be held to be the custodian of ward wise data as sought by the appellant, the Commission finds that role of Registrar General in implementation of the RBD Act cannot be lost sight of.

14. The Commission finds that the present controversy is limited to only practices of data maintenance and preservation. There is no legal impediment in creation of two or more equally effective access points of information both at central as well as state level. It is rather a question of 'data mirroring' and the essential question raised in the present case requires forging new practices of data management which is in furtherance of RBD Act as well as RTI Act. The Commission also takes note of the submission of the PIO that it is comparatively difficult to register data of deaths with cause of death; as in contrast to data regarding births.

15. The judicious aggregation as well as preservation of 'data of death' is very important for the ensuring the quality of life of the living. The data is a crucial indicator of various factors which is a key for ensuring good governance and efficient policy planning. The Commission sees no reason to deny access of such important data to citizenry at large in a manner which facilitates a social audit of the quality of life across social & regional level. An information seeker must be able to know the precise data if deaths & births right from the fundamental unit such as village & wards. The whole process of registration would be rendered futile if, we as nation do not have access to the data recorded at each level of social existence.

16. Accordingly, the Commission in exercise of powers vested under Section 19(8)(a)(iv) of the RTI Act directs the public authority ie. Registrar General, India to change the present practices relating to aggregation of data under the RBD Act as received from various Chief Registrars across states. It is well within the powers of Registrar General, India under Section 3(3) of the RBD Act to issue 'general directions regarding registration of births and deaths in the territories to which this Act extends'. The directions issued by the Commission are also in line with the promotion of co-ordination and unification of the activities of Chief Registrars in the matter of registration of births and deaths'. Necessary changes, if required in the software used for the purpose may be made if required.

17. The respondent PIO is also directed to access information sought from relevant quarter and furnish the same to the appellant within 4 weeks of receipt of this order. The Commission places on record appreciation for the appellant for espousing the present cause of larger public interest.

18. The PIO, Registrar General shall report compliance of the present decision within 3 months of receipt of the present decision. The appeal is allowed in aforesaid terms.

Sd/-
(Yashovardhan Azad)
Information Commissioner

Authenticated true copy. Additional copies of orders shall be supplied against application and payment of the charges prescribed under the Act to the CPIO of this Commission.

(R.P. Grover)
Designated Officer

Copy to:

Central Public Information Officer
Deputy Director-(CRS),
Office of the Registrar General of India,
V. S. Division, West Block-I,
R. K. Puram, New Delhi-110066

Central Public Information Officer,
Senior Research Officer & CPIO-(MCCD),
Office of the Registrar General of India,
V. S. Division, West Block-I,
R. K. Puram, New Delhi-110066

First Appellate Authority under RTI,
Office of the Registrar General of India,
V. S. Division, West Block-I,
R. K. Puram, New Delhi-110066

Shri Eknath Pawar
Praja Foundation,
Victoria Building, 1st Agiary Lane,
Off Mint Road, Fort,
Mumbai-400001 (Maharashtra).

Annexure 10: Health Indicators Adopted by India under Sustainable Development Goals, SDG India Index Baseline Report, 2018

The National Context

National aspirations for economic growth cannot be achieved without a healthy and productive population. Economic and social advancements can neither be secure nor sustainable unless sufficient investments are made to protect and promote the health and well-being for all, at all ages. Thus, maintaining good health is important for individuals to lead a better life and is critical for a nation's development.

While sustained efforts have to be made for India to achieve the targets set under Goal 3, the country has made impressive gains on key indicators. The maternal mortality ratio has declined to 130 in 2014-16 from 254 in 2004-06. Under 5 mortality rate in 2015-16 was 50, down from 74 in 2005-2006 . ***Ayushman Bharat*** and ***POSHAN Abhiyan*** are two of the most comprehensive and recent programmes of the Government of India to promote good health.

India SDG Index – Goal 3

To measure India's performance on the Goal of Good Health and Well-being, five national level indicators have been identified, which capture four out of the 13 SDG targets for 2030 outlined under this Goal. These indicators have been selected based on availability of data at the national level and to ensure comparability across States and Union Territories (UTs).

3.1	**3.2**	**3.3**	3.4	3.5	3.6	3.7
3.8	3.9	3.a	3.b	3.c	3.d	

NATIONAL INDICATORS USED

SDG GLOBAL TARGET	INDICATOR SELECTED FOR SDG INDIA INDEX	NATIONAL TARGET VALUE FOR 2030
3.1 By 2030, reduce the global maternal mortality ratio to less than 70 per 100,000 live births	1. Maternal Mortality Ratio	70
3.2 By 2030, end preventable deaths of newborns and children under 5 years of age, with all countries aiming to reduce neonatal mortality to at least as low as 12 per 1,000 live births and under-5 mortality to at least as low as 25 per 1,000 live births	2. Under-five mortality rate per 1,000 live births	11
	3. Percentage of children aged 12-23 months fully immunized (BCG, Measles and three doses of Pentavalent vaccine)	100
3.3 By 2030, end the epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases and combat hepatitis, water-borne diseases and other communicable diseases	4. Annual notification of Tuberculosis cases per 1 lakh population	0
3.8 Achieve universal health coverage, including financial risk protection, access to quality essential health-care services and access to safe, effective, quality and affordable essential medicines and vaccines for all	5. Number of governmental physicians, nurses and midwives per 1,00,000 population	550

Annexure 11: 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 & Deaths is doing in Central Government portal crsorgi.gov.in and Reports of Births & 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 2).

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 an 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. It's 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.

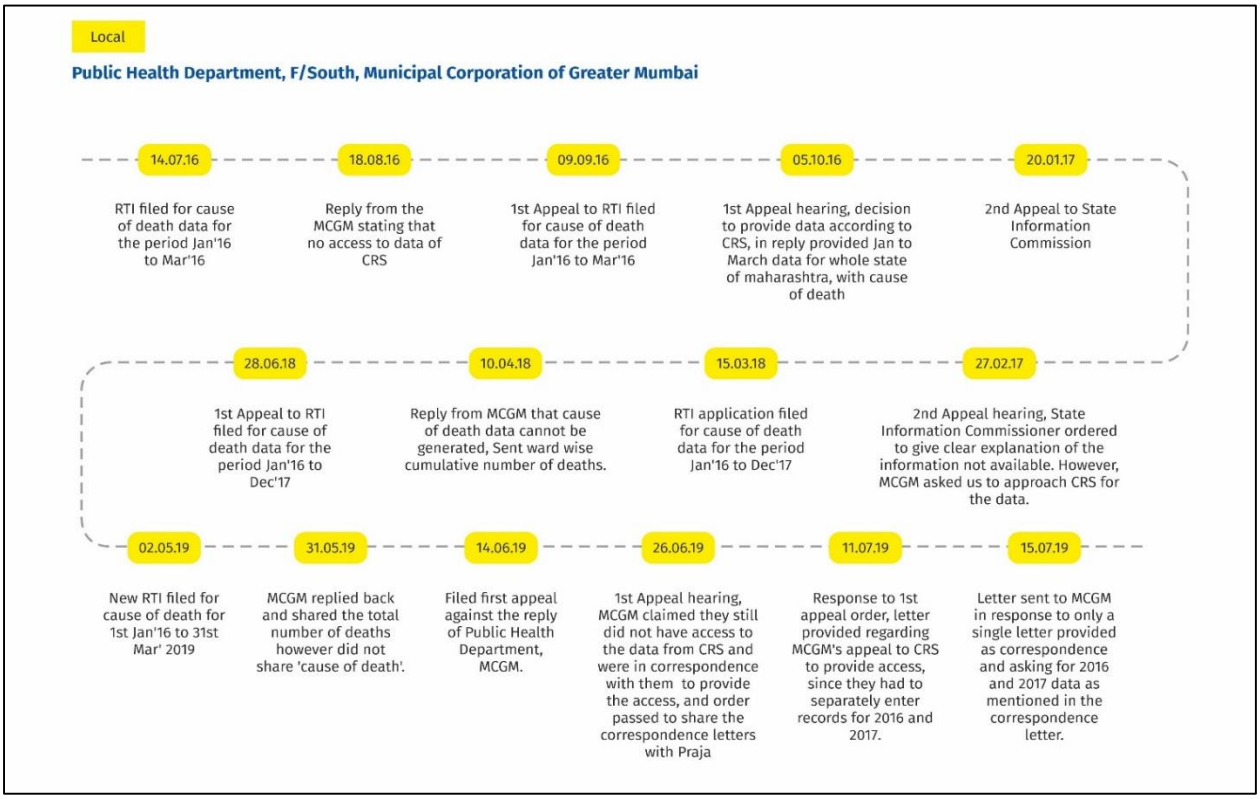
In the first appeal in MCGM on 26th June, 2019 the MCGM claimed they still did not have access to the data from CRS and were in correspondence with the central government in respect to the same and agreed to share the correspondence letters with Praja.

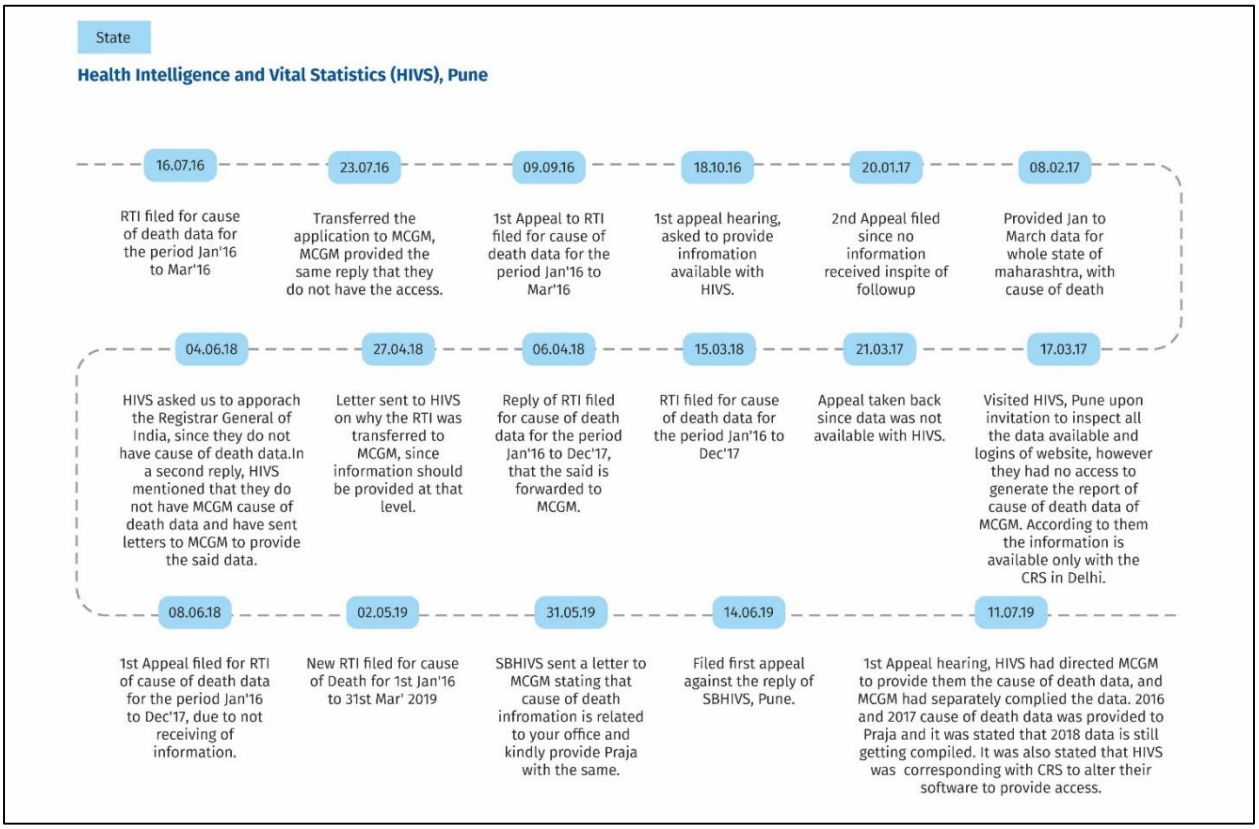
Through the correspondence, and in the first appeal in HIVS, Pune on 11th July, 2019, it came to our knowledge that on the directive of the state, the MCGM had separately compiled all the cause of death data for the years 2016 and 2017 and provided it to the state only recently, and that 2018 data was 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.

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.

The callousness in the cause of death data is also evident from the numbers itself, showing that even when the MCGM has made a double effort to maintain the data of late, it has not verified the sanctity of the numbers. For example, in 2016 there are 7 deaths due to dengue which rise to 348 in 2017, while this number was 129 in 2015. It is clear that the numbers have not been correctly verified although the HIVS, Pune from where the data was received, confirmed the data saying this is what is received from MCGM.

Timeline of RTIs and responses on Cause of Death in Local (City), State and Central Government






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
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 wasreceived from the latter.
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.
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.
11.06.18
RTI filed for cause of death data for the period Jan'16 to Dec'17
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 infromed Praja to collect the infromation from their office however the said infromation is the same as last received in 2016. They also directed Praja to collect information from MCGM.
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.