Analysis of

Community Reported Deaths

in Chhattisgarh

Report

Year 2017

Compiled by:

State Health Resource Centre, Chhattisgarh

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Executive Summary

Introduction: In the rural areas of Chhattisgarh, Village Health Sanitation and Nutrition Committees (VHSNCs) are mandated to record the deaths happening in the villages. Similarly, in the urban-slum area of Chhattisgarh, Mahila Aarogya Samitis (MAS) are mandated to record the deaths. The death registers also show the cause of death as reported at community level. The national guidelines on Community Processes brought out by National Health Mission (NHM) emphasise this role of above committees promoted by it. Chhattisgarh was one of the first states in the country to implement this aspect. This process was piloted between 2008 and 2010. It was replicated across the state from 2011-12. Compiled analytical reports are available from 2012 onwards. The urban component was added from 2015 onwards after establishment of community processes in urban areas under NHM.

Objective: One of the key purposes of keeping a register of deaths in VHSNC and MAS are to enable health monitoring. The death registers of VHSNCs and MAS are compiled and computerized into a database at the state level by SHRC. This is meant to allow analysis of deaths and causes recorded and reported by community.

The causes of the deaths analysed in this report are as reported by the communities. Therefore the definitions of causes may not match with the technical definitions defined in specific Guidelines of reproductive & child health, National disease-control programmes or the International Classification of Diseases (ICD-10). Despite this limitation, the information available through VHSNC and MAS registers is still useful for understand the approximate causes of a large share of deaths in the state. In order to adapt to the limited technical knowledge available at village level regarding diseases and their symptoms, the exercise focuses on common conditions with easily identifiable symptoms. E.g. community can easily identify a symptom like diarrhoea, fever, injury etc.

Number of deaths covered: For rural areas, this report analyses nearly 90927 deaths that were recorded by VHSNCs during the year 2017. The deaths covered in 2017 compilation constitute 60% of total no. of rural deaths expected according to Crude Death Rate of the state (as per AHS 2012-13).

Year wise comparison of rural death reporting percentage

Deaths	Expect ed Rural Deaths	No. of reporte d deaths in 2012	%	No. of report ed deaths in 2013	%	No.of reporte d deaths in 2014	%	No.of report ed deaths in 2015	%	No.of reporte d deaths in 2016	%	No.of reporte d deaths in 2017	%
Overall Deaths	150981	39168	26%	58556	39%	74279	49%	91147	60%	107194	71%	90927	60%
Neonatal Deaths	16067	3391	21%	4361	27%	5194	32%	5895	37%	6300	39%	5378	33%
1-11 month age group Deaths	6616	1133	17%	1240	19%	1909	29%	2142	32%	2626	40%	1676	25%
1-4 year age group Deaths	8033	1159	14%	1295	16%	1701	21%	1885	23%	2061	26%	1918	24%
Maternal Deaths	1153	230	20%	244	21%	326	28%	402	35%	384	33%	317	27%
Other groups	119112	33255	28%	51416	43%	65149	55%	80823	68%	95823	80%	81638	69%

In the urban-slum area, this report analyses 9177 deaths that were recorded by MAS during the year 2017. This is an improvement from 2016. The deaths covered in 2017 compilation constitute 77% of total no. of deaths expected according to Crude Death Rate of the state (as per SRS 2015). The urban data pertains to slums of 19 cities with 1977237 slum population (according to Mitanin Database in 2015).

Year wise comparison of Urban-Slum death reporting percentage

Deaths	Expected urban slum Deaths	No.of reported deaths in 2015	%	No.of reported deaths in 2016	%	No.of reported deaths in 2017	%
Overall Deaths	11863	2764	23%	8162	69%	9177	77%
Neonatal Deaths	830	525	63%	743	89%	703	85%
1-11 month age group Deaths	435	97	22%	173	40%	158	36%
1-4 Year age group Deaths	119	60	51%	114	96%	127	107%
Maternal Deaths	96	14	15%	26	27%	35	36%
Other age groups	10383	2068	20%	7106	68%	8154	79%

Reported Causes of deaths: The analysis of causes shows the following as the common causes for reported deaths in different age categories:

A. Causes for deaths reported in different age categories in Rural Chhattisgarh

S.N.	Deported Courses	0 to28	1-11	1-4	5 to	15 to	50 to	60 to 69	Above	Total
D.11.	Reported Causes	days	months	yrs	14 yrs	49 yrs	59 yrs	yrs	70 yrs	1 Otal
1	Accident	39	51	261	530	3458	681	514	772	6306
2	Convulsion	159	61	126	90	233	41	55	57	822
3	Fever/ Malaria	81	118	213	259	502	139	190	425	1927
4	Neonatal Jaundice	188								188
5	Jaundice		64	119	181	851	197	137	163	1712
6	Low Birth Weight	711								711
7	Malnutrition		141	116	21	25	3	10	57	373
8	Diarrhea	53	81	113	91	218	78	91	180	905
9	Pneumonia	337	317	199	45	59	12	4	19	992
10	T.B.	4	4	15	19	797	376	356	364	1935
11	Snake Bite		7	41	119	298	64	47	35	611
12	Rabies			4	16	19	18	9	10	76
13	Birth Asphyxia	926								926
14	Neonatal Sepsis	433								433
15	Maternal causes					272				272
16	Murder					323	50	44	32	449
17	Suicide					2401	338	195	171	3105
18	Cancer	0	9	37	74	1513	958	879	843	4313
19	HIV/AIDS				4	86	11	9	3	113
20	Heart Disease/Stroke		120	120	202	27.5	2212	5 001	1015	22001
20	(Including CHD/Anomalies)	74	139	139	203	3565	3313	5001	10462	22896
21	Digestive Diseases	95	53	114	179	1441	696	713	919	4210
22	Genito-urinary Diseases	8	4	2	3	41	14	29	50	151
23	Diabetes	7	0	7	25	594	555	777	1067	3032
24	Sickle Cell Anemia	6	8	30	112	265	34	25	26	506
25	Others	2257	619	382	583	5297	3150	5014	16661	33963
	Total	5378	1676	1918	2554	22258	10728	14099	32316	90927

The leading causes of preventable mortality (the ones that communities can recognise) up to age of sixty years can be assessed from this data. Their relative importance is also clear from the analysis.

- > 0 to 28 days neonates, Newborn causes (Birth Asphyxia and Sepsis) are the leading causes of death.
- ➤ 1 to 11 month children, Pneumonia is the leading cause of death.
- ➤ 1 to 4 years children, Accident, Fever/Malaria and Pneumonia are the leading causes of death.
- ➤ 5 to 14 year age group, Accident, Fever/Malaria, heart disease and Jaundice are the leading causes of death.
- ➤ 15-49 years age group, Accidents, Suicides and Heart Disease/stroke are the leading causes of death.
- For 50-59 years age groups, Heart Disease/stroke, Cancer, Accident, Diabetes and Fever/Malaria are the leading causes of death. For deaths in 60-69 years and 70 years and above age groups, same set of causes dominate.

Geographical Pattern: Mortality in tribal districts has greater share of infectious diseases (malaria, diarrhea, pneumonia) but also of digestive diseases. Surprisingly, accidents are also a bigger contributor to mortality in tribal areas compared to non-tribal districts. Non-tribal districts record a big share of NCD deaths, presumably due to better identification (diagnosis) availability there. Causes like suicides are common to both types of geographies but South Bastar and Urban areas have higher rates.

B. Causes for deaths reported in different age categories in Urban-Slum areas of Chhattisgarh

S.N.	Reported Causes	0 to28 days	1-11 months	1-4 yrs	5 to 14 yrs	15 to 49 yrs	50 to 59 yrs	60 to 69 yrs	Above 70 yrs	Total
1	Accident	1	2	21	53	348	80	93	141	739
2	Convulsions	11	14	8	4	8	3	4	6	58
3	Fever/ Malaria	4	11	13	17	51	24	34	35	189
4	Neonatal Jaundice	15								15
5	Jaundice		3	7	7	80	14	17	10	138
6	Low Birth Weight	50								50
7	Malnutrition		11	5	1	1	0	0		18
8	Diarrhea	1	5	10	6	24	7	7	15	75
9	Pneumonia	10	29	12	9	12	4	8	6	90
10	Heart Disease/Stroke (including Congenital Heart Disease/Anomalies)	10	31	22	6	426	440	478	497	1910
11	Digestive Diseases	4	4	6	9	166	75	54	54	372
12	Genito-urinary Diseases	0	0	0	0	0	0	2		2
13	Diabetes	1	0	1	2	69	71	83	101	328
14	HIV/AIDS	0	0	0	1	40	7	1	3	52
15	T.B.	0	0	1	4	125	59	35	31	255
16	Snake Bite		0	0	2	4	0	0	1	7
17	Rabies			0	1	7	2	1	3	14
18	Birth Asphyxia	131								333
19	Neonatal Sepsis	38								38
20	Maternal causes					15				15
21	Murder					43	0	2	2	47
22	Suicide					386	47	20	16	469
23	Sickle Cell Anemia			0	6	33	1	1		41
24	Cancer	1	0	2	12	195	118	101	76	505
25	Others	426	48	19			3126			3619
	Total	703	158	127	3266	2033	952	941	997	9177

In urban slum areas, Heart Disease/stroke, Neonatal conditions, Accidents, Suicide, Cancer and Diabetes are leading cause of death. Amongst infectious diseases, TB and Fever/Malaria are the leading cause of death in urban slums.

Year wise comparison of reported cause of rural deaths

Number

S.N.	Reported Causes	No.of Deaths Reported in 2012	No.of Deaths Reported in 2013	No.of Deaths Reported in 2014	No.of Deaths Reported in 2015	No.of Deaths Reported in 2016	No.of Deaths Reported in 2017
1	Heart Disease/Stroke (including Congenital Heart Disease/Anomalies)					8233	22896
2	Accident	1854	2935	3722	5072	6521	6306
3	Cancer					4436	4313
4	Digestive Diseases					3585	4210
5	Suicide	1476	2063	2728	3363	3472	3105
6	Diabetes					3238	3032
7	T.B.	934	1376	1795	2183	2383	1935
8	Fever/Malaria	2467	2872	3962	4071	3531	1927
9	Jaundice	619	850	1429	1669	2079	1712
10	Neonatal causes (Birth Asphyxia & Sepsis)	1863	2619	3262	3617	3747	1359
11	Pneumonia	582	754	1199	1384	1873	992
12	Diarrhea	607	752	949	1197	1534	905
13	Convulsions	238	301	485	678	997	822
14	Low Birth Weight	235	474	715	998	1006	711
15	Snake bite	342	451	585	677	737	611
16	Sickle Cell Anemia					457	506
17	Murder	229	272	336	339	445	449
18	Malnutrition	109	216	331	442	672	373
19	Maternal causes	230	244	326	402	384	272
20	Neonatal Jaundice	109	147	213	178	263	188
21	Genito-urinary Diseases					76	151
22	HIV/AIDS					107	113
23	Rabies	72	106	118	142	119	76
24	Others	27202	42124	52124	64735	57299	33963
	Total	39168	58556	74279	91147	107194	90927

Year wise comparison of reported cause of rural deaths

Proportion

S.N.	Reported Causes	% of Deaths Reported in 2012	% of Deaths Reported in 2013	% of Deaths Reported in 2014	% of Deaths Reported in 2015	% of Deaths Reported in 2016	% of Deaths Reported in 2017
1	Heart Disease/Stroke (including Congenital Heart Disease/Anomalies)					7.7%	25.2%
2	Accident	4.7%	5.0%	5.0%	5.6%	6.1%	6.9%
3	Cancer					4.1%	4.7%
4	Digestive Diseases					3.3%	4.6%
5	Suicide	3.8%	3.5%	3.7%	3.7%	3.2%	3.4%
6	Diabetes					3.0%	3.3%
7	T.B.	2.4%	2.3%	2.4%	2.4%	2.2%	2.1%
8	Fever/Malaria	6.3%	4.9%	5.3%	4.5%	3.3%	2.1%
9	Jaundice	1.6%	1.5%	1.9%	1.8%	1.9%	1.9%
10	Neonatal causes (Birth Asphyxia & Sepsis)	4.8%	4.5%	4.4%	4.0%	3.5%	1.5%
11	Pneumonia	1.5%	1.3%	1.6%	1.5%	1.7%	1.1%
12	Diarrhea	1.5%	1.3%	1.3%	1.3%	1.4%	1.0%
13	Convulsions	0.6%	0.5%	0.7%	0.7%	0.9%	0.9%
14	Low Birth Weight	0.6%	0.8%	1.0%	1.1%	0.9%	0.8%
15	Snake bite	0.9%	0.8%	0.8%	0.7%	0.7%	0.7%
16	Sickle Cell Anemia					0.4%	0.6%
17	Murder	0.6%	0.5%	0.5%	0.4%	0.4%	0.5%
18	Malnutrition	0.3%	0.4%	0.4%	0.5%	0.6%	0.4%
19	Maternal causes	0.6%	0.4%	0.4%	0.4%	0.4%	0.3%
20	Neonatal Jaundice	0.3%	0.3%	0.3%	0.2%	0.2%	0.2%
21	Genito-urinary Diseases					0.1%	0.2%
22	HIV/AIDS					0.1%	0.1%
23	Rabies	0.2%	0.2%	0.2%	0.2%	0.1%	0.1%
24	Others	69.4%	71.9%	70.2%	71.0%	53.5%	37.4%
	Total	100%	100%	100%	100%	100%	100%

There is a sharp increase in stroke/heart disease deaths but it reflects better recording of such causes. There is a trend of increase seen in deaths due to accidents. This report has unpacked it to understand this important set of deaths for public health planning.

VHSNC based system of recording deaths and causes and its compilation and analysis continue to be useful in providing a picture of mortality in rural and urban slum population of the state. Its replication in urban slums through MAS in 2015 seems to have reached maturity now, as reflected in the growing number of deaths reported.

The Trend of Fever, Pneumonia and Diarrhea Death

The trend of fever deaths over last 5 years amongst the 1-59 years age groups is given below. It also includes a trend for 88 tribal blocks, known to be malaria affected (mostly with reported API>5). It shows decline in mortality related to this cause and the decline from 2016 to 2017 is especially dramatic.

Year	1-59 yrs (All blocks)	1-59 yrs (88 Tribal blocks with API>5)	1-59 yrs(All blocks)	Tribal 88 blocks 1-59 years
	Fever-Malaria related deaths	Fever-Malaria related deaths	Total deaths	Total deaths
2012	1714		19545	
2013	1717	1293	23919	12679
2014	2226	1558	30273	15087
2015	2061	1499	34412	13695
2016	1738	1100	43425	12754
2017	1113	554	37458	13272

Year	% of fever/malaria related deaths in 1- 59 yrs total deaths	% of fever/malaria related deaths in 1-59 yrs deaths in 88 blocks
2013	7.2%	10.2%
2014	7.4%	10.3%
2015	6.0%	10.9%
2016	4.0%	8.6%
2017	3.0%	4.2%

The trend of Pneumonia and Diarrhea related deaths over last 5 years amongst the 1-59 years age groups is given below. It shows the mortality related to these causes did not have have a clear pattern of decline till 2016 and a significant decline is visible in 2017.

Year	0-59 yrs Total deaths	0-59 yrs Pneumonia related deaths	%	0-59 yrs Diarrhea related deaths	%
2012	24069	580	2.4%	511	2.1%
2013	29520	741	2.5%	575	1.9%
2014	37376	1176	3.1%	685	1.8%
2015	42449	1358	3.2%	769	1.8%
2016	52351	1833	3.5%	1000	1.9%
2017	44512	969	2.2%	634	1.4%

Chapter 1: Introduction

Introduction: As per Guidelines of NHM, Village Health Sanitation and Nutrition Committees (VHSNCs) are mandated to record the deaths happening in the villages. The purpose of keeping a register of deaths in VHSNC is to enable health monitoring and planning at village and higher levels. The Format of the Death Register used by VHSNCs is as follows:

	Death Register of VHSNC											
							Month:	• • • • • • • • • •	Year			
Sl.	Name of the perso n	Father's / Husban d's name	Ag e	Cast e	Sex	Village name	Pancha yat	Date of death	Community Reported Cause of Death	Pregnant women (Yes/ No)		

For each death, VHSNC also tries to record the probable cause of death as reported by the community. It allows the community to keep a watch on the key causes of mortality in the village. The Death Register also gives them pointers on the issues which require action at various levels. Many of the actions require collective planning in the VHSNC. For example, the VHSNCs discuss in detail if they come across any Infant and Maternal deaths; deaths related to Fever/Malaria, Diarrhoea and TB. It allows them to assess the causes and remedies for the preventable causes of mortality in their village.

As a component of Community Based Monitoring, the records of deaths are used to carry out Community Audits of deaths.

Methodology: The death registers of VHSNCs are compiled and computerized into a database at the state level by SHRC. This is meant to allow analysis of deaths recorded by age, district and cause.

Regarding the causes of the deaths, it is very important to keep in mind that these are the causes as perceived and reported by the community in VHSNC meetings. Therefore the definitions may not match with the technical definitions laid out by the guidelines of Health ministry (MoHFW) or International Classification of Diseases (ICD-10). Despite the definitional issues, the information available through VHSNC registers is still useful in understanding the likely and approximate causes leading to a large share of the mortality in the state.

The proportion of the estimated deaths being reported through VHSNC Death Registers: The deaths analysed in the report are the ones recorded by VHSNCs in their death registers. The registers are compiled at the state level. There is a possibility that some of the information may not have got recorded or entered in state level computerisation.

The expected total rural deaths were estimated based on the population (as per 2011 Census) and the Crude Death Rate for rural area (as per AHS 2012-13) and for urban-slum (as per SRS 2015). As per the information compiled for 2017 (January to December), 90927 deaths have been documented.

In 2017, 60% of the total expected rural deaths have been collected and compiled through the VHSNC structure. The information thus is not based on any sampling process. This aspect also needs to be considered while interpreting the findings of this report. It also means that the number of deaths ascribed to any cause may be higher than the number reported here.

Similarly for deaths by age groups, the number of estimated deaths was calculated based on the Mortality figures given by AHS 2012-13. This report covers only 33% of the expected neonatal deaths, 25% of post-neonatal infant deaths and 24% of child deaths of the remaining age group up to 4 years for rural areas. Similarly it covers 27% of the likely total number of maternal deaths in rural areas. Since the expected death number is based on AHS figures collected for 2011, the decline in these mortality rates has not got incorporated, thus showing exaggerated number of expected deaths in the above categories.

Year wise Death Reporting Percentage

Deaths	Expecte d Rural Deaths	No. of reporte d deaths in 2012	%	No. of reporte d deaths in 2013	%	No.of reporte d deaths in 2014	%	No.of reporte d deaths in 2015	%	No.of reported deaths in 2016	%	No.of report ed deaths in 2017	%
Overall Deaths	150981	39168	26%	58556	39%	74279	49%	91147	60%	107194	71%	90927	60%
Neonatal Deaths	16067	3391	21%	4361	27%	5194	32%	5895	37%	6300	39%	5378	33%
1-11 month age group Deaths	6616	1133	17%	1240	19%	1909	29%	2142	32%	2626	40%	1676	25%
1-4 year age group Deaths	8033	1159	14%	1295	16%	1701	21%	1885	23%	2061	26%	1918	24%
Maternal Deaths	1153	230	20%	244	21%	326	28%	402	35%	384	33%	317	27%
Other groups	119112	33255	28%	51416	43%	65149	55%	80823	68%	95823	80%	81638	69%

A similar methodology is used for urban areas through recording of deaths by MAS which is explained in Chapter on analysis of urban-slum deaths.

Chapter 2: Analysis of Deaths suspected due to key infectious diseases (Malaria, Pneumonia, Diarrhea, TB) in rural Chhattisgarh

2.1 Fever or suspected-Malaria related Deaths:

VHSNCs have reported 1927 deaths during 2017 for which the cause is recorded as fever or malaria.

S.N.	District	Rural Population (Census 2011)	Total reported deaths by VHSNC in 2017	No.of Fever/Malaria death reported by VHSNC in 2016	%	No.of Fever/Malaria death reported by VHSNC in 2017	%
1	BIJAPUR	225591	1203	212	17.1%	128	10.6%
2	SUKMA	221825	868	81	8.5%	43	5.0%
3	BASTAR	697934	2394	189	7.2%	112	4.7%
4	DANTEWADA	214830	1114	94	8.4%	42	3.8%
5	RAIGARH	1247346	5494	390	5.2%	181	3.3%
6	KORIA	453476	1160	155	10.0%	38	3.3%
7	BALODABAZAR	1138729	6046	265	3.9%	191	3.2%
8	SURGUJA	703294	2894	211	6.0%	89	3.1%
9	BILASPUR	1347093	4796	241	4.0%	145	3.0%
10	BALRAMPUR	695579	2403	266	6.7%	70	2.9%
11	GARIYABAND	556967	2378	117	3.7%	59	2.5%
12	NARAYANPUR	118087	448	14	3.3%	10	2.2%
13	MUNGELI	636162	2564	92	3.7%	55	2.1%
14	JASHPUR	776017	4122	122	2.8%	87	2.1%
15	BEMETARA	721077	3389	121	3.2%	67	2.0%
16	KANKER	671834	3086	66	1.9%	52	1.7%
17	RAIPUR	884237	4788	74	1.5%	77	1.6%
18	DHAMTARI	650045	4248	52	1.1%	68	1.6%
19	JANJGIR	1395433	7288	168	2.1%	113	1.6%
20	KAWARDHA	734894	3210	159	4.5%	44	1.4%
21	MAHASAMUND	912166	5439	101	1.6%	67	1.2%
22	KONDAGAON	520382	1485	52	2.6%	17	1.1%
23	RAJNANDGAON	1264980	6775	69	0.8%	67	1.0%
24	KORBA	760360	2324	114	3.5%	20	0.9%
25	SURAJPUR	717439	2926	51	1.3%	25	0.9%
26	BALOD	720697	4347	21	0.5%	37	0.9%
27	DURG	617184	3738	34	0.9%	23	0.6%
	State Average	19603658	90927	3531	3.3%	1927	2.1%

The deaths due to Fever or suspected-Malaria are spread across all age groups.

S.N.	Age Category	No.of Death reported	Percentage
1	0-28 days	81	4%
2	1-11 month	118	6%
3	1-4 year	213	11%
4	5-14 year	259	13%
5	15-49year	502	26%
6	50-59year	139	7%
7	60-69year	190	10%
8	More than 70year	425	22%
	Total	1927	100%

50% of the reported deaths due to Fever or suspected-Malaria are of male persons.

Gender	No.of Death Reported	Percentage
Male	963	50%
Female	964	50%
Total	1927	100%

There is a seasonal trend in deaths with 43% of the Fever or suspected-Malaria related deaths happening in months July to October.

Month	No.of Death Reported	Percentage
January	113	6%
February	71	4%
March	125	6%
April	152	8%
May	222	12%
June	144	7%
July	215	11%
August	219	11%
September	217	11%
October	187	10%
November	162	8%
December	100	5%
Total	1927	100%

The trend of fever deaths over last 5 years amongst the 1-59 years age groups is given below. It also includes a trend for 88 tribal blocks, known to be malaria affected (mostly with reported API>5).

Year	1-59 yrs(All blocks)	1-59 yrs (Tribal 88 blocks)	1-59 yrs	Tribal 88 blocks 1-59 years
	Fever-Malaria related deaths	Fever-Malaria related deaths	Total deaths	Total deaths
2012	1714		19545	
2013	1717	1293	23919	12679
2014	2226	1558	30273	15087
2015	2061	1499	34412	13695
2016	1738	1100	43425	12754
2017	1113	554	37458	13272

It shows decline in mortality related to this cause and the decline from 2016 to 2017 is especially dramatic.

Year	% of fever/malaria related deaths in 1- 59 yrs total deaths	% of fever/malaria related deaths in 1-59 yrs deaths in 88 blocks
2013	7.2%	10.2%
2014	7.4%	10.3%
2015	6.0%	10.9%
2016	4.0%	8.6%
2017	3.0%	4.2%

The trend of Pneumonia and Diarrhea related deaths over last 5 years amongst the 1-59 years age groups is given below. It shows the mortality related to these causes did not have have a clear pattern of decline till 2016 and a significant decline is visible in 2017.

Year	0-59 yrs Total deaths	0-59 yrs Pneumonia related deaths	%	0-59 yrs Diarrhea related deaths	%
2012	24069	580	2.4%	511	2.1%
2013	29520	741	2.5%	575	1.9%
2014	37376	1176	3.1%	685	1.8%
2015	42449	1358	3.2%	769	1.8%
2016	52351	1833	3.5%	1000	1.9%
2017	44512	969	2.2%	634	1.4%

2.2 Deaths due to Pneumonia:

VHSNCs have reported 992 deaths during 2017 for which the cause is recorded as pneumonia.

S.N.	District	Rural Population (Census 2011)	Total reported deaths by VHSNC	No.of Pneumonia deaths reported by VHSNC in 2016	%	No.of Pneumonia deaths reported by VHSNC in 2017	%
1	BIJAPUR	225591	1203	49	3.9%	44	3.7%
2	DANTEWADA	214830	1114	34	3.0%	34	3.1%
3	KONDAGAON	520382	1485	98	4.9%	43	2.9%
4	SUKMA	221825	868	51	5.4%	23	2.6%
5	GARIYABAND	556967	2378	86	2.7%	55	2.3%
6	BASTAR	697934	2394	85	3.3%	45	1.9%
7	KAWARDHA	734894	3210	108	3.0%	58	1.8%
8	MUNGELI	636162	2564	55	2.2%	43	1.7%
9	BILASPUR	1347093	4796	142	2.3%	77	1.6%
10	BEMETARA	721077	3389	69	1.8%	52	1.5%
11	SURAJPUR	717439	2926	74	2.0%	41	1.4%
12	KANKER	671834	3086	74	2.1%	39	1.3%
13	RAIPUR	884237	4788	52	1.1%	57	1.2%
14	RAJNANDGAON	1264980	6775	164	1.9%	69	1.0%
15	BALODABAZAR	1138729	6046	109	1.6%	58	1.0%
16	BALRAMPUR	695579	2403	92	2.3%	20	0.8%
17	DURG	617184	3738	34	0.9%	31	0.8%
18	KORBA	760360	2324	51	1.6%	18	0.8%
19	SURGUJA	703294	2894	63	1.8%	20	0.7%
20	BALOD	720697	4347	47	1.0%	30	0.7%
21	MAHASAMUND	912166	5439	55	0.8%	33	0.6%
22	DHAMTARI	650045	4248	62	1.3%	25	0.6%
23	JANJGIR	1395433	7288	81	1.0%	38	0.5%
24	NARAYANPUR	118087	448	12	2.9%	2	0.4%
25	KORIA	453476	1160	20	1.3%	5	0.4%
26	JASHPUR	776017	4122	47	1.1%	16	0.4%
27	RAIGARH	1247346	5494	59	0.8%	16	0.3%
S	tate Average	19603658	90927	1873	1.7%	992	1.1%

While most districts show substantial decline in pneumonia deaths from 2016 to 2017, the change in Bijapur, Dantewada and Gariaband is negligible.

86% deaths due to pneumonia are in under-5 years age group.

S.N.	Age Category	No.of Death reported	Percentage
1	0-28 days	337	34%
2	1-11 month	317	32%
3	1-4 year	199	20%
4	5-14 year	45	5%
5	15-49year	59	6%
6	50-59year	12	1%
7	60-69year	4	0%
8	More than 70year	19	2%
	Total	992	100%

54% of the deaths due to pneumonia are of male persons.

Gender	No.of Death Reported	Percentage
Male	532	54%
Female	460	46%
Total	992	100%

41% of deaths due to pneumonia happened in colder season – October to January.

Month	No.of Death Reported	Percentage
January	92	9%
February	80	8%
March	52	5%
April	55	6%
May	94	9%
June	63	6%
July	75	8%
August	80	8%
September	87	9%
October	126	13%
November	99	10%
December	89	9%
Total	992	100%

2.3 Deaths due to Diarrhea:

VHSNCs have reported 905 deaths during 2017 for which the cause is recorded as Diarrhoea.

S.N.	District	Rural Population (Census 2011)	Total reported deaths by VHSNC	No.of Diarrhea death reported by VHSNC in 2016	%	No.of Diarrhea death reported by VHSNC in 2017	%
1	SUKMA	221825	868	27	2.8%	27	3.1%
2	NARAYANPUR	118087	448	7	1.7%	12	2.7%
3	BASTAR	697934	2394	88	3.4%	61	2.5%
4	BALRAMPUR	695579	2403	135	3.4%	54	2.2%
5	BIJAPUR	225591	1203	51	4.1%	26	2.2%
6	KONDAGAON	520382	1485	56	2.8%	32	2.2%
7	SURGUJA	703294	2894	74	2.1%	55	1.9%
8	GARIYABAND	556967	2378	50	1.6%	38	1.6%
9	KAWARDHA	734894	3210	68	1.9%	50	1.6%
10	DANTEWADA	214830	1114	24	2.1%	17	1.5%
11	KORIA	453476	1160	35	2.3%	17	1.5%
12	KANKER	671834	3086	41	1.2%	37	1.2%
13	RAIGARH	1247346	5494	203	2.7%	64	1.2%
14	JASHPUR	776017	4122	72	1.7%	43	1.0%
15	BEMETARA	721077	3389	48	1.3%	27	0.8%
16	RAJNANDGAON	1264980	6775	75	0.8%	53	0.8%
17	MUNGELI	636162	2564	32	1.3%	20	0.8%
18	DHAMTARI	650045	4248	21	0.4%	33	0.8%
19	SURAJPUR	717439	2926	66	1.7%	21	0.7%
20	JANJGIR	1395433	7288	62	0.8%	50	0.7%
21	BILASPUR	1347093	4796	50	0.8%	31	0.6%
22	MAHASAMUND	912166	5439	68	1.0%	34	0.6%
23	BALODABAZAR	1138729	6046	66	1.0%	37	0.6%
24	KORBA	760360	2324	23	0.7%	13	0.6%
25	RAIPUR	884237	4788	28	0.6%	25	0.5%
26	DURG	617184	3738	35	0.9%	14	0.4%
27	BALOD	720697	4347	29	0.6%	14	0.3%
St	ate Average	19603658	90927	1534	1.4%	905	1.0%

The reduction in diarrhea deaths in Sukma, Surguja, Kwardha and Narayanpur is not significant and overall death rate continues to be well above state average.

24% of these deaths are in 15-49 year age group. Deaths due to diarrhoea are also high in the 1 to 4 yrs age group.

S.N.	Age Category	No.of Death reported	Percentage
1	0-28 days	53	6%
2	1-11 month	81	9%
3	1-4 year	113	12%
4	5-14 year	91	10%
5	15-49year	218	24%
6	50-59year	78	9%
7	60-69year	91	10%
8	More than 70year	180	20%
	Total	905	100%

54% of the deaths due to Diarrhea are of male persons.

Gender	No.of Death Reported	Percentage
Male	492	54%
Female	413	46%
Total	905	100%

The number of deaths per month is slightly higher in July.

Month	No.of Death Reported	Percentage
January	98	11%
February	58	6%
March	77	9%
April	75	8%
May	88	10%
June	67	7%
July	110	12%
August	95	10%
September	79	9%
October	66	7%
November	52	6%
December	40	4%
Total	905	100%

2.4 Deaths due to TB:

VHSNCs have reported 1935 deaths during 2017 for which the cause is recorded as TB.

S.N.	District	Rural Population (Census 2011)	Total reported deaths by VHSNC	No.of TB death reported by VHSNC in 2016	%	No.of TB death reported by VHSNC in 2017	%
1	Sukma	221825	868	68	7.2%	63	7.3%
2	Bijapur	225591	1203	86	6.9%	68	5.7%
3	Narayanpur	118087	448	33	7.9%	22	4.9%
4	Bastar	697934	2394	109	4.2%	80	3.3%
5	Kanker	671834	3086	89	2.5%	102	3.3%
6	Kondagaon	520382	1485	43	2.1%	48	3.2%
7	Surajpur	717439	2926	76	2.0%	80	2.7%
8	Raigarh	1247346	5494	247	3.3%	149	2.7%
9	Dantewada	214830	1114	48	4.3%	30	2.7%
10	Korba	760360	2324	80	2.5%	62	2.7%
11	Gariyaband	556967	2378	72	2.3%	59	2.5%
12	Dhamtari	650045	4248	111	2.3%	102	2.4%
13	Bemetara	721077	3389	83	2.2%	78	2.3%
14	Jashpur	776017	4122	89	2.0%	94	2.3%
15	Koria	453476	1160	25	1.6%	26	2.2%
16	Kawardha	734894	3210	69	1.9%	71	2.2%
17	Balodabazar	1138729	6046	166	2.4%	130	2.2%
18	Balrampur	695579	2403	91	2.3%	48	2.0%
19	Mahasamund	912166	5439	83	1.3%	104	1.9%
20	Raipur	884237	4788	102	2.1%	77	1.6%
21	Bilaspur	1347093	4796	98	1.6%	75	1.6%
22	Rajnandgaon	1264980	6775	177	2.0%	103	1.5%
23	SURGUJA	703294	2894	78	2.2%	43	1.5%
24	Janjgir	1395433	7288	89	1.1%	96	1.3%
25	Durg	617184	3738	54	1.4%	44	1.2%
26	Balod	720697	4347	72	1.6%	51	1.2%
27	Mungeli	636162	2564	45	1.8%	30	1.2%
Sta	ate Average	19603658	90927	2383	2.2%	1935	2.1%

41% of these deaths are in 15-49 year age group. Deaths due to TB are also high in the 50-59 year age group.

S.N.	Age Category	No.of Death reported	Percentage
1	0-28 days	4	0%
2	1-11 month	4	0%
3	1-4 year	15	1%
4	5-14 year	19	1%
5	15-49year	797	41%
6	50-59year	376	19%
7	60-69year	356	18%
8	More than 70year	364	19%
	Total	1935	100%

71% of the deaths due to TB are of male persons.

Gender	No.of Death Reported	Percentage
Male	1382	71%
Female	553	29%
Total	1935	100%

The number of deaths per month is slightly high in April

Month	No.of Death Reported	Percentage
January	156	8%
February	133	7%
March	130	7%
April	218	11%
May	200	10%
June	138	7%
July	198	10%
August	159	8%
September	163	8%
October	141	7%
November	149	8%
December	150	8%
Total	1935	100%

Chapter 3: Analysis of Deaths due to Non-Communicable diseases in rural Chhattisgarh (Heart Disease/stroke, Cancer, Diabetes and Sickle Cell Anemia)

3.1 Deaths due to Heart Disease/stroke (including congenital heart disease & anomalies):

VHSNCs have reported 22896 deaths during 2017 for which the cause is recorded as Heart Disease/stroke (including congenital heart disease & anomalies).

S.N.	District	Rural Population (Census 2011)	Total reported deaths by VHSNC	No.of deaths due to Heart disease/stroke (including CHD/Anomalies) reported by VHSNC in 2016	%	No.of death due to Heart disease/stroke (including CHD/Anomalies) reported by VHSNC in 2017	%
1	DURG	617184	3738	461	11.6%	1360	36.4%
2	JANJGIR	1395433	7288	888	11.1%	2527	34.7%
3	KAWARDHA	734894	3210	320	9.0%	989	30.8%
4	RAJNANDGAON	1264980	6775	811	9.2%	1979	29.2%
5	RAIGARH	1247346	5494	518	6.9%	1578	28.7%
6	BALOD	720697	4347	419	9.3%	1235	28.4%
7	DHAMTARI	650045	4248	569	11.9%	1192	28.1%
8	BILASPUR	1347093	4796	602	9.9%	1325	27.6%
9	MUNGELI	636162	2564	219	8.8%	683	26.6%
10	KORBA	760360	2324	360	11.2%	603	25.9%
11	BEMETARA	721077	3389	305	8.0%	844	24.9%
12	RAIPUR	884237	4788	367	7.5%	1134	23.7%
13	SURAJPUR	717439	2926	170	4.5%	688	23.5%
14	BALODABAZAR	1138729	6046	498	7.2%	1411	23.3%
15	KANKER	671834	3086	226	6.4%	673	21.8%
16	JASHPUR	776017	4122	122	2.8%	874	21.2%
17	SURGUJA	703294	2894	205	5.8%	611	21.1%
18	BASTAR	697934	2394	132	5.1%	503	21.0%
19	BALRAMPUR	695579	2403	265	6.7%	489	20.3%
20	MAHASAMUND	912166	5439	328	5.1%	1085	19.9%
21	NARAYANPUR	118087	448	26	6.2%	79	17.6%
22	KORIA	453476	1160	67	4.3%	184	15.9%
23	KONDAGAON	520382	1485	68	3.4%	233	15.7%
24	GARIYABAND	556967	2378	186	5.8%	366	15.4%
25	BIJAPUR	225591	1203	40	3.2%	108	9.0%
26	SUKMA	221825	868	34	3.6%	75	8.6%
27	DANTEWADA	214830	1114	27	2.4%	68	6.1%
St	ate Average	19603658	90927	8233	7.7%	22896	25.2%

Stroke/heart disease deaths in non-tribal areas are much higher, presumably due to better availability of diagnosis in urban areas.

16% of these deaths are in 15-59 year age group.

S.N.	Age Category	No.of Death reported	Percentage	
1	0-28 days	74	0%	
2	1-11 month	139	1%	
3	1-4 year	139	1%	
4	5-14 year	203	1%	
5	15-49year	3565	16%	
6	50-59year	3313	14%	
7	60-69year	5001	22%	
8	More than 70year	10462	46%	
Total		22896	100%	

59% of the deaths are of male persons.

Gender	No.of Death Reported	Percentage
Male	13460	59%
Female	9436	41%
Total	22896	100%

The number of deaths per month does not have a seasonal pattern. .

Month	No.of Death Reported	Percentage
January	2093	9%
February	1599	7%
March	1566	7%
April	1681	7%
May	2260	10%
June	1643	7%
July	2062	9%
August	1937	8%
September	1922	8%
October	1768	8%
November	2153	9%
December	2212	10%
Total	22896	100%

3.2 Deaths due to Cancer:

VHSNCs have reported 4313 deaths during 2017 for which the cause is recorded as Cancer.

S.N.	District	Rural Population (Census 2011)	Total reported deaths by VHSNC	No.of death due to Cancer reported by VHSNC in 2016	%	No.of death due to Cancer reported by VHSNC in 2017	%
1	MUNGELI	636162	2564	120	4.8%	173	6.7%
2	BEMETARA	721077	3389	210	5.5%	227	6.7%
3	KAWARDHA	734894	3210	196	5.5%	195	6.1%
4	DURG	617184	3738	238	6.0%	214	5.7%
5	JANJGIR	1395433	7288	398	5.0%	405	5.6%
6	RAIGARH	1247346	5494	334	4.5%	301	5.5%
7	RAIPUR	884237	4788	252	5.2%	262	5.5%
8	SURAJPUR	717439	2926	154	4.1%	159	5.4%
9	RAJNANDGAON	1264980	6775	371	4.2%	344	5.1%
10	BILASPUR	1347093	4796	261	4.3%	241	5.0%
11	KORIA	453476	1160	61	3.9%	58	5.0%
12	DHAMTARI	650045	4248	212	4.4%	198	4.7%
13	SURGUJA	703294	2894	138	3.9%	134	4.6%
14	BALOD	720697	4347	177	3.9%	188	4.3%
15	BALODABAZAR	1138729	6046	265	3.9%	252	4.2%
16	MAHASAMUND	912166	5439	228	3.5%	222	4.1%
17	KORBA	760360	2324	118	3.7%	89	3.8%
18	BALRAMPUR	695579	2403	128	3.2%	92	3.8%
19	JASHPUR	776017	4122	135	3.1%	157	3.8%
20	BASTAR	697934	2394	80	3.1%	90	3.8%
21	KANKER	671834	3086	123	3.5%	116	3.8%
22	NARAYANPUR	118087	448	14	3.3%	16	3.6%
23	GARIYABAND	556967	2378	124	3.9%	72	3.0%
24	BIJAPUR	225591	1203	24	1.9%	33	2.7%
25	KONDAGAON	520382	1485	50	2.5%	37	2.5%
26	DANTEWADA	214830	1114	10	0.9%	22	2.0%
27	SUKMA	221825	868	15	1.6%	16	1.8%
	State Average	19603658	90927	4436	4.1%	4313	4.7%

Cancer deaths in non-tribal areas are much higher, presumably due to better availability of diagnosis in urban areas.

35% of these deaths are in 15-59 year age group.

S.N.	Age Category	No. of Death reported	Percentage	
1	0-28 days	0	0.0%	
2	1-11 month	9	0.2%	
3	1-4 year	37	0.9%	
4	5-14 year	74	1.7%	
5	15-49year	1513	35%	
6	50-59year	958	22%	
7	60-69year	879	20%	
8	More than 70year	843	20%	
	Total	4313	100%	

48% of the deaths are of male persons.

Gender	No.of Death Reported	Percentage
Male	2074	48%
Female	2239	52%
Total	4313	100%

The number of deaths per month does not have a seasonal pattern. $\boldsymbol{.}$

Month	No.of Death Reported	Percentage
January	286	7%
February	249	6%
March	362	8%
April	369	9%
May	447	10%
June	378	9%
July	403	9%
August	429	10%
September	360	8%
October	341	8%
November	352	8%
December	337	8%
Total	4313	100%

3.3 Deaths due to Diabetes:

VHSNCs have reported 3032 deaths during 2017 for which the cause is recorded as Diabetes.

S.N.	District	Rural Population (Census 2011)	Total reported deaths by VHSNC	No.of death due to Diabetes reported by VHSNC in 2016	%	No.of death due to Diabetes reported by VHSNC in 2017	%
1	NARAYANPUR	118087	448	14	3.3%	29	6.5%
2	MUNGELI	636162	2564	138	5.6%	159	6.2%
3	KANKER	671834	3086	159	4.5%	177	5.7%
4	DHAMTARI	650045	4248	210	4.4%	201	4.7%
5	DURG	617184	3738	145	3.7%	159	4.3%
6	JANJGIR	1395433	7288	314	3.9%	294	4.0%
7	BEMETARA	721077	3389	103	2.7%	124	3.7%
8	BALOD	720697	4347	115	2.6%	149	3.4%
9	SURGUJA	703294	2894	94	2.7%	98	3.4%
10	BILASPUR	1347093	4796	190	3.1%	162	3.4%
11	MAHASAMUND	912166	5439	180	2.8%	180	3.3%
12	KORIA	453476	1160	46	3.0%	38	3.3%
13	RAIPUR	884237	4788	137	2.8%	153	3.2%
14	BALODABAZAR	1138729	6046	221	3.2%	187	3.1%
15	SURAJPUR	717439	2926	87	2.3%	88	3.0%
16	RAJNANDGAON	1264980	6775	299	3.4%	199	2.9%
17	RAIGARH	1247346	5494	233	3.1%	153	2.8%
18	KORBA	760360	2324	87	2.7%	64	2.8%
19	BASTAR	697934	2394	46	1.8%	63	2.6%
20	KAWARDHA	734894	3210	109	3.1%	83	2.6%
21	JASHPUR	776017	4122	89	2.0%	92	2.2%
22	GARIYABAND	556967	2378	70	2.2%	53	2.2%
23	BALRAMPUR	695579	2403	65	1.6%	50	2.1%
24	KONDAGAON	520382	1485	53	2.6%	30	2.0%
25	BIJAPUR	225591	1203	17	1.4%	22	1.8%
26	DANTEWADA	214830	1114	12	1.1%	15	1.3%
27	SUKMA	221825	868	5	0.5%	10	1.2%
9	State Average	19603658	90927	3238	3.0%	3032	3.3%

Most tribal districts (with exception of Narayanpur) show less deaths due to diabetes compared to non-tribal districts.

61% of these deaths are in above age 59 groups.

S.N.	Age Category	No.of Death reported	Percentage	
1	0-28 days	7	0.2%	
2	1-11 month	0	0.0%	
3	1-4 year	7	0.2%	
4	5-14 year	25	0.8%	
5	15-49year	594	20%	
6	50-59year	555	18%	
7	60-69year	777	26%	
8	More than 70year	1067	35%	
	Total	3032	100%	

60% of the deaths are of male persons.

Gender	No.of Death Reported	Percentage
Male	1828	60%
Female	1204	40%
Total	3032	100%

The number of deaths per month does not have a seasonal pattern. $\boldsymbol{.}$

Month	No.of Death Reported	Percentage
January	242	8%
February	213	7%
March	206	7%
April	227	7%
May	299	10%
June	217	7%
July	309	10%
August	309	10%
September	265	9%
October	251	8%
November	256	8%
December	238	8%
Total	3032	100%

3.4 Deaths due to Digestive Disease:

VHSNCs have reported 4210 deaths during 2017 for which the cause is recorded as Digestive disease.

S.N.	District	Rural Population (Census 2011)	Total reported deaths by VHSNC	No.of deaths due to Digestive disease reported by VHSNC in 2016	%	No.of deaths due to Digestive disease reported by VHSNC in 2017	%
1	NARAYANPUR	118087	448	34	8.1%	46	10.3%
2	KORIA	453476	1160	137	8.8%	104	9.0%
3	BALRAMPUR	695579	2403	279	7.0%	207	8.6%
4	BIJAPUR	225591	1203	47	3.8%	96	8.0%
5	DANTEWADA	214830	1114	56	5.0%	88	7.9%
6	KANKER	671834	3086	157	4.5%	233	7.6%
7	SURGUJA	703294	2894	245	6.9%	215	7.4%
8	SURAJPUR	717439	2926	268	7.1%	207	7.1%
9	BASTAR	697934	2394	139	5.3%	141	5.9%
10	KONDAGAON	520382	1485	150	7.4%	87	5.9%
11	KORBA	760360	2324	145	4.5%	122	5.2%
12	GARIYABAND	556967	2378	67	2.1%	120	5.0%
13	JASHPUR	776017	4122	168	3.9%	208	5.0%
14	RAIGARH	1247346	5494	251	3.4%	269	4.9%
15	BILASPUR	1347093	4796	171	2.8%	223	4.6%
16	DHAMTARI	650045	4248	100	2.1%	180	4.2%
17	BEMETARA	721077	3389	82	2.1%	133	3.9%
18	RAJNANDGAON	1264980	6775	239	2.7%	260	3.8%
19	SUKMA	221825	868	41	4.3%	33	3.8%
20	DURG	617184	3738	76	1.9%	141	3.8%
21	JANJGIR	1395433	7288	152	1.9%	260	3.6%
22	RAIPUR	884237	4788	53	1.1%	170	3.6%
23	MUNGELI	636162	2564	71	2.9%	88	3.4%
24	KAWARDHA	734894	3210	132	3.7%	110	3.4%
25	BALODABAZAR	1138729	6046	148	2.2%	192	3.2%
26	BALOD	720697	4347	60	1.3%	127	2.9%
27	MAHASAMUND	912166	5439	117	1.8%	150	2.8%
S	tate Average	19603658	90927	3585	3.3%	4210	4.6%

Tribal areas show higher share of Digestive diseases in mortality.

34% of these deaths are in 15-49 year age group.

S.N.	Age Category	No.of Death reported	Percentage	
1	0-28 days	95	2%	
2	1-11 month	53	1%	
3	1-4 year	114	3%	
4	5-14 year	179	4%	
5	15-49year	1441	34%	
6	50-59year	696	17%	
7	60-69year	713	17%	
8	More than 70year	919	22%	
	Total	4210	100%	

61% of the deaths are of male persons.

Gender	No.of Death Reported	Percentage
Male	2553	61%
Female	1657	39%
Total	4210	100%

The number of deaths are relatively higher during July to October.

Month	No.of Death Reported	Percentage
January	224	5%
February	229	5%
March	257	6%
April	265	6%
May	421	10%
June	335	8%
July	431	10%
August	453	11%
September	475	11%
October	419	10%
November	387	9%
December	314	7%
Total	4210	100%

3.5 Deaths due to Sickle Cell Anemia:

VHSNCs have reported 506 deaths during 2017 for which the cause is recorded as Sickle Cell Anemia.

S.N.	District	Rural Population (Census 2011)	Total reported deaths by VHSNC	No. of deaths due to Sickle Cell Anemia reported by VHSNC in 2016	%	No. of deaths due to Sickle Cell Anemia reported by VHSNC in 2017	%
1	MAHASAMUND	912166	5439	50	0.8%	59	1.1%
2	RAIGARH	1247346	5494	42	0.6%	50	0.9%
3	RAIPUR	884237	4788	27	0.6%	40	0.8%
4	GARIYABAND	556967	2378	17	0.5%	19	0.8%
5	SURAJPUR	717439	2926	15	0.4%	23	0.8%
6	DURG	617184	3738	19	0.5%	28	0.7%
7	NARAYANPUR	118087	448	2	0.5%	3	0.7%
8	BASTAR	697934	2394	10	0.4%	15	0.6%
9	SURGUJA	703294	2894	25	0.7%	18	0.6%
10	BEMETARA	721077	3389	4	0.1%	21	0.6%
11	JANJGIR	1395433	7288	27	0.3%	41	0.6%
12	KANKER	671834	3086	17	0.5%	17	0.6%
13	DHAMTARI	650045	4248	28	0.6%	23	0.5%
14	KORBA	760360	2324	11	0.3%	12	0.5%
15	MUNGELI	636162	2564	7	0.3%	11	0.4%
16	BALRAMPUR	695579	2403	14	0.4%	10	0.4%
17	BIJAPUR	225591	1203	1	0.1%	5	0.4%
18	BALODABAZAR	1138729	6046	21	0.3%	25	0.4%
19	KAWARDHA	734894	3210	18	0.5%	13	0.4%
20	JASHPUR	776017	4122	8	0.2%	15	0.4%
21	RAJNANDGAON	1264980	6775	40	0.5%	22	0.3%
22	BALOD	720697	4347	21	0.5%	14	0.3%
23	BILASPUR	1347093	4796	14	0.2%	13	0.3%
24	DANTEWADA	214830	1114	8	0.7%	3	0.3%
25	KORIA	453476	1160	1	0.1%	3	0.3%
26	KONDAGAON	520382	1485	7	0.3%	3	0.2%
27	SUKMA	221825	868	3	0.3%	0	0.0%
S	tate Average	19603658	90927	457	0.4%	506	0.6%

52% of these deaths are in 15-49 year age group.

S.N.	Age Category	No.of Death reported	Percentage
1	0-28 days	6	1.2%
2	1-11 month	8	1.6%
3	1-4 year	30	6%
4	5-14 year	112	22%
5	15-49year	265	52%
6	50-59year	34	6.7%
7	60-69year	25	4.9%
8	More than 70year	26	5.1%
	Total	506	100%

47% of the deaths are of male persons.

Gender	No.of Death Reported	Percentage
Male	240	47%
Female	266	53%
Total	506	100%

The number of deaths are relatively higher during August and September.

Month	No.of Death Reported	Percentage
January	36	7%
February	28	6%
March	32	6%
April	26	5%
May	50	10%
June	38	8%
July	44	9%
August	60	12%
September	71	14%
October	39	8%
November	49	10%
December	33	7%
Total	506	100%

Chapter 4: Analysis of other important causes of deaths in rural Chhattisgarh – Accidents, Suicides, Snake-bite and Rabies

4.1 Deaths due to Accident:

VHSNCs have reported 6306 deaths during 2017 for which the cause is recorded as accident.

S.N.	District	Rural Population (Census 2011)	Total reported deaths by VHSNC	No.of Accident death reported by VHSNC in 2016	%	No.of Accident death reported by VHSNC in 2017	%
1	Surajpur	717439	2926	284	7.5%	292	10.0%
2	Balrampur	695579	2403	346	8.7%	233	9.7%
3	SURGUJA	703294	2894	288	8.1%	278	9.6%
4	Bijapur	225591	1203	100	8.0%	112	9.3%
5	Koria	453476	1160	123	7.9%	107	9.2%
6	Sukma	221825	868	47	5.0%	78	9.0%
7	Kondagaon	520382	1485	163	8.1%	130	8.8%
8	Bastar	697934	2394	149	5.7%	208	8.7%
9	Jashpur	776017	4122	299	6.9%	358	8.7%
10	Dantewada	214830	1114	69	6.1%	96	8.6%
11	Korba	760360	2324	223	6.9%	184	7.9%
12	Raipur	884237	4788	375	7.7%	373	7.8%
13	Balodabazar	1138729	6046	375	5.5%	448	7.4%
14	Bilaspur	1347093	4796	469	7.7%	354	7.4%
15	Janjgir	1395433	7288	490	6.1%	505	6.9%
16	Narayanpur	118087	448	24	5.7%	31	6.9%
17	Mungeli	636162	2564	151	6.1%	170	6.6%
18	Durg	617184	3738	227	5.7%	234	6.3%
19	Kawardha	734894	3210	184	5.2%	200	6.2%
20	Kanker	671834	3086	221	6.3%	192	6.2%
21	Mahasamund	912166	5439	307	4.7%	321	5.9%
22	Raigarh	1247346	5494	399	5.3%	312	5.7%
23	Dhamtari	650045	4248	226	4.7%	238	5.6%
24	Rajnandgaon	1264980	6775	438	5.0%	352	5.2%
25	Bemetara	721077	3389	229	6.0%	176	5.2%
26	Balod	720697	4347	190	4.2%	223	5.1%
27	Gariyaband	556967	2378	125	3.9%	101	4.2%
St	ate Average	19603658	90927	6521	6.1%	6306	6.9%

Surprisingly, tribal districts have a bigger part of accidents in their mortality. Most districts have growing trend of accidents. One reason for that is greater occurrence of drowning and fall related deaths in tribal districts.

Classification of Accidental deaths:

S.N.	Type of Accidental Death	No.of Deaths	%
1	Road Accidents	3570	56.6%
2	Falling (from roof, trees etc)	871	13.8%
3	Drowning	620	9.8%
4	Electrocution	384	6.1%
5	Burning	441	7.0%
6	Other injury	127	2.0%
7	Lightening	115	1.8%
8	Animal bites	105	1.7%
9	Buried	66	1.0%
10	Suffocated	6	0.1%
11	Flood	1	0.0%
	Total	6306	100%

District wise relative proportion of deaths due to different kind of Accidents (Out of Accidental deaths reported by VHSNCs):

S.N.	District	% Death due to Road Accident	% Death due to Falling	% Death due to Drowning	% of Death due to Electrocution	% Death due to Burning
1	Balod	70%	10%	7%	7%	3%
2	Balodabazar	60%	11%	11%	7%	6%
3	Balrampur	48%	17%	15%	4%	3%
4	Bastar	49%	24%	15%	2%	5%
5	Bemetara	50%	14%	6%	7%	13%
6	Bijapur	56%	19%	15%	4%	3%
7	Bilaspur	55%	11%	9%	3%	15%
8	Dantewada	38%	19%	21%	6%	9%
9	Dhamtari	57%	16%	11%	7%	5%
10	Durg	61%	11%	7%	8%	9%
11	Gariyaband	45%	14%	11%	13%	14%
12	Janjgir	62%	12%	7%	7%	6%
13	Jashpur	56%	13%	14%	5%	4%
14	Kanker	55%	19%	12%	5%	7%
15	Kawardha	62%	10%	6%	11%	6%
16	Kondagaon	58%	14%	10%	3%	5%
17	Korba	55%	10%	13%	6%	7%
18	Koria	56%	16%	8%	3%	6%
19	Mahasamund	67%	8%	6%	5%	7%
20	Mungeli	61%	8%	8%	10%	10%
21	Narayanpur	23%	32%	29%	3%	3%
22	Raigarh	56%	13%	12%	8%	4%
23	Raipur	69%	7%	6%	6%	9%
24	Rajnandgaon	58%	14%	6%	7%	10%
25	Sukma	49%	19%	13%	5%	9%
26	Surajpur	47%	22%	9%	7%	7%
27	Surguja	41%	25%	12%	5%	5%
	Total	57%	14%	10%	6%	7%

District wise percentage of deaths due to specific kind of Accidents out of total deaths reported by VHSNCs:

S.N.	District	% Death due to Road Accident	% Death due to Falling	% Death due to Drowning	% of Death due to Electrocution	% Death due to Burning
1	Balod	3.57%	0.51%	0.35%	0.35%	0.14%
2	Balodabazar	4.42%	0.79%	0.79%	0.51%	0.46%
3	Balrampur	4.62%	1.66%	1.50%	0.42%	0.33%
4	Bastar	4.22%	2.09%	1.29%	0.21%	0.46%
5	Bemetara	2.60%	0.71%	0.30%	0.38%	0.65%
6	Bijapur	5.24%	1.75%	1.41%	0.33%	0.25%
7	Bilaspur	4.07%	0.83%	0.69%	0.19%	1.13%
8	Dantewada	3.23%	1.62%	1.80%	0.54%	0.81%
9	Dhamtari	3.20%	0.89%	0.64%	0.40%	0.28%
10	Durg	3.83%	0.70%	0.45%	0.48%	0.56%
11	Gariyaband	1.89%	0.59%	0.46%	0.55%	0.59%
12	Janjgir	4.28%	0.84%	0.49%	0.45%	0.38%
13	Jashpur	4.88%	1.14%	1.24%	0.44%	0.39%
14	Kanker	3.43%	1.17%	0.75%	0.32%	0.42%
15	Kawardha	3.83%	0.59%	0.34%	0.65%	0.34%
16	Kondagaon	5.05%	1.21%	0.88%	0.27%	0.40%
17	Korba	4.35%	0.77%	0.99%	0.47%	0.56%
18	Koria	5.17%	1.47%	0.78%	0.26%	0.52%
19	Mahasamund	3.97%	0.48%	0.33%	0.28%	0.42%
20	Mungeli	4.02%	0.51%	0.51%	0.66%	0.66%
21	Narayanpur	1.56%	2.23%	2.01%	0.22%	0.22%
22	Raigarh	3.20%	0.73%	0.66%	0.47%	0.22%
23	Raipur	5.39%	0.52%	0.50%	0.50%	0.67%
24	Rajnandgaon	3.00%	0.74%	0.32%	0.35%	0.52%
25	Sukma	4.38%	1.73%	1.15%	0.46%	0.81%
26	Surajpur	4.68%	2.22%	0.85%	0.65%	0.65%
27	Surguja	3.94%	2.42%	1.11%	0.45%	0.48%
	Total	3.93%	0.96%	0.68%	0.42%	0.49%

55% of these deaths are in 15-49 year age group.

S.N.	Age Category	No.of Death reported	Percentage
1	0-28 days	39	1%
2	1-11 month	51	1%
3	1-4 year	261	4%
4	5-14 year	530	8%
5	15-49year	3458	55%
6	50-59year	681	11%
7	60-69year	514	8%
8	More than 70year	772	12%
Total		6306	100%

70% of the deaths due to accident are of male persons.

Gender	No.of Death Reported	Percentage	
Male	4443	70%	
Female	1863	30%	
Total	6306	100%	

The number of deaths per month does not have a seasonal pattern.

Month	No.of Death Reported	Percentage
January	466	7%
February	400	6%
March	448	7%
April	563	9%
May	697	11%
June	594	9%
July	588	9%
August	528	8%
September	561	9%
October	502	8%
November	469	7%
December	490	8%
Total	6306	100%

4.2 Deaths due to suicide:

VHSNCs have reported 3105 deaths during 2017 for which the cause is recorded as suicide.

S.N.	District	Rural Population (Census 2011)	Total reported deaths by VHSNC	No.of Suicide deaths reported by VHSNC in 2016	%	No.of Suicide deaths reported by VHSNC in 2017	%
1	Dantewada	214830	1114	46	4.1%	63	5.7%
2	Kondagaon	520382	1485	66	3.3%	83	5.6%
3	Sukma	221825	868	20	2.1%	48	5.5%
4	Bijapur	225591	1203	60	4.8%	65	5.4%
5	Narayanpur	118087	448	17	4.0%	22	4.9%
6	Durg	617184	3738	200	5.0%	180	4.8%
7	Raipur	884237	4788	249	5.1%	217	4.5%
8	Dhamtari	650045	4248	196	4.1%	186	4.4%
9	Surajpur	717439	2926	135	3.6%	126	4.3%
10	Kanker	671834	3086	145	4.1%	127	4.1%
11	Koria	453476	1160	41	2.6%	43	3.7%
12	Balod	720697	4347	118	2.6%	155	3.6%
13	Surguja	703294	2894	116	3.3%	98	3.4%
14	Mahasamund	912166	5439	201	3.1%	183	3.4%
15	Bastar	697934	2394	76	2.9%	79	3.3%
16	Korba	760360	2324	100	3.1%	76	3.3%
17	Gariyaband	556967	2378	94	2.9%	75	3.2%
18	Bilaspur	1347093	4796	206	3.4%	145	3.0%
19	Raigarh	1247346	5494	229	3.1%	165	3.0%
20	Janjgir	1395433	7288	223	2.8%	210	2.9%
21	Balrampur	695579	2403	110	2.8%	69	2.9%
22	Rajnandgaon	1264980	6775	231	2.6%	193	2.8%
23	Balodabazar	1138729	6046	228	3.3%	172	2.8%
24	Kawardha	734894	3210	78	2.2%	86	2.7%
25	Jashpur	776017	4122	129	3.0%	99	2.4%
26	Mungeli	636162	2564	51	2.1%	61	2.4%
27	Bemetara	721077	3389	107	2.8%	79	2.3%
S	tate Average	19603658	90927	3472	3.2%	3105	3.4%

Some tribal districts, especially the 5 districts in southern part of Bastar division show higher suicide rates and also with an increasing trend. The pattern is mixed as these districts are closely followed by urban districts like Raipur and Durg.

78% of these deaths are in 15-49 year age group. Deaths due to suicide are also high in the 50-59 year age group.

S.N.	Age Category	No.of Death reported	Percentage
1	15 to 25 years	1062	34%
2	26 to 35 years	730	24%
3	36 to 49 years	609	20%
4	50-59year	338	11%
5	60-69year	195	6%
6	More than 70year	171	6%
	Total	3105	100%

69% of the deaths due to suicide are of male persons. There is some reduction in suicides by women with age, 25 year onwards.

			%		%	
S.N.	Age Category	Male		Female		Total
1	15 to 25 years	659	62%	403	38%	1062
2	26 to 35 years	501	69%	229	31%	730
3	36 to 49 years	450	74%	159	26%	609
4	50 to 59 years	268	79%	70	21%	338
5	60 to 69 years	147	75%	48	25%	195
6	More than 70 years	126	74%	45	26%	171
	Total	2151	69%	954	31%	3105

The number of deaths per month does not have a seasonal pattern.

Month	No.of Death Reported	Percentage
January	215	7%
February	220	7%
March	264	9%
April	277	9%
May	298	10%
June	257	8%
July	326	10%
August	286	9%
September	262	8%
October	268	9%
November	246	8%
December	186	6%
Total	3105	100%

4.3 Deaths due to snake bite:

VHSNCs have reported 611 deaths during 2017 for which the cause is recorded as snake bite.

S.N.	District	Rural Population (Census 2011)	Total reported deaths by VHSNC	No.of Deaths reported by VHSNC in 2016	%	No.of Deaths reported by VHSNC in 2017	%
1	Sukma	221825	868	12	1.3%	18	2.1%
2	Dantewada	214830	1114	25	2.2%	22	2.0%
3	Bijapur	225591	1203	26	2.1%	22	1.8%
4	Balrampur	695579	2403	66	1.7%	43	1.8%
5	Koria	453476	1160	18	1.2%	17	1.5%
6	Narayanpur	118087	448	6	1.4%	6	1.3%
7	Kondagaon	520382	1485	18	0.9%	19	1.3%
8	Kanker	671834	3086	37	1.1%	33	1.1%
9	Mungeli	636162	2564	13	0.5%	25	1.0%
10	Bastar	697934	2394	29	1.1%	22	0.9%
11	Kawardha	734894	3210	38	1.1%	28	0.9%
12	Korba	760360	2324	22	0.7%	20	0.9%
13	Janjgir	1395433	7288	55	0.7%	61	0.8%
14	Surguja	703294	2894	22	0.6%	21	0.7%
15	Bilaspur	1347093	4796	42	0.7%	33	0.7%
16	Raigarh	1247346	5494	64	0.9%	35	0.6%
17	Gariyaband	556967	2378	10	0.3%	13	0.5%
18	Rajnandgaon	1264980	6775	59	0.7%	37	0.5%
19	Surajpur	717439	2926	21	0.6%	14	0.5%
20	Mahasamund	912166	5439	30	0.5%	26	0.5%
21	Jashpur	776017	4122	36	0.8%	18	0.4%
22	Bemetara	721077	3389	17	0.4%	14	0.4%
23	Raipur	884237	4788	15	0.3%	16	0.3%
24	Balodabazar	1138729	6046	35	0.5%	20	0.3%
25	Durg	617184	3738	7	0.2%	11	0.3%
26	Dhamtari	650045	4248	11	0.2%	10	0.2%
27	Balod	720697	4347	3	0.1%	7	0.2%
St	ate Average	19603658	90927	737	0.7%	611	0.7%

49% of these deaths are in 15-49 year age group. Deaths due to snake bite are also high in the 5-14 year age group.

S.N.	Age Category	No.of Death reported	Percentage
1	0-28 days	0	0%
2	1-11 month	7	1%
3	1-4 year	41	7%
4	5-14 year	119	19%
5	15-49year	298	49%
6	50-59year	64	10%
7	60-69year	47	8%
8	More than 70year	35	6%
	Total	611	100%

49% of the deaths due to snake bite are of male persons.

Gender	No.of Death Reported	Percentage
Male	297	49%
Female	314	51%
Total	611	100%

The number of deaths per month is slightly higher during June to August.

Month	No.of Death Reported	Percentage
January	13	2%
February	4	1%
March	16	3%
April	30	5%
May	53	9%
June	134	22%
July	117	19%
August	103	17%
September	56	9%
October	62	10%
November	16	3%
December	7	1%
Total	611	100%

4.4 Deaths due to Rabies:

VHSNCs have reported 76 deaths during 2017 for which the cause is recorded as Rabies

S.N.	District	Rural Population (Census 2011)	Total reported deaths by VHSNC	No.of Deaths reported by VHSNC in 2016	%	No.of Deaths reported by VHSNC in 2017	%
1	Koria	453476	1160	5	0.3%	3	0.3%
2	Bastar	697934	2394	3	0.1%	6	0.3%
3	Jashpur	776017	4122	8	0.2%	10	0.2%
4	Kondagaon	520382	1485	1	0.0%	3	0.2%
5	Bijapur	225591	1203	2	0.2%	2	0.2%
6	Bilaspur	1347093	4796	10	0.2%	7	0.1%
7	Surguja	703294	2894	10	0.3%	4	0.1%
8	Korba	760360	2324	10	0.3%	3	0.1%
9	Durg	617184	3738	2	0.1%	4	0.1%
10	Kawardha	734894	3210	7	0.2%	3	0.1%
11	Rajnandgaon	1264980	6775	5	0.1%	5	0.1%
12	Mahasamund	912166	5439	9	0.1%	4	0.1%
13	Raigarh	1247346	5494	6	0.1%	4	0.1%
14	Surajpur	717439	2926	2	0.1%	2	0.1%
15	Bemetara	721077	3389	4	0.1%	2	0.1%
16	Janjgir	1395433	7288	5	0.1%	4	0.1%
17	Balodabazar	1138729	6046	7	0.1%	3	0.0%
18	Raipur	884237	4788	1	0.0%	2	0.0%
19	Balrampur	695579	2403	7	0.2%	1	0.0%
20	Mungeli	636162	2564	7	0.3%	1	0.0%
21	Kanker	671834	3086	1	0.0%	1	0.0%
22	Dhamtari	650045	4248	2	0.0%	1	0.0%
23	Balod	720697	4347	0	0.0%	1	0.0%
24	Dantewada	214830	1114	2	0.2%	0	0.0%
25	Gariyaband	556967	2378	0	0.0%	0	0.0%
26	Narayanpur	118087	448	0	0.0%	0	0.0%
27	Sukma	221825	868	3	0.3%	0	0.0%
St	ate Average	19603658	90927	119	0.1%	76	0.1%

70% of these deaths are in 5-59 year age group.

S.N.	Age Category	No.of Death reported	Percentage
1	0-28 days	0	0%
2	1-11 month	0	0%
3	1-4 year	4	5%
4	5-14 year	16	21%
5	15-49year	19	25%
6	50-59year	18	24%
7	60-69year	9	12%
8	More than 70year	10	13%
	Total	76	100%

61% of the deaths due to Rabies are of male persons.

Gender	No.of Death Reported	Percentage
Male	46	61%
Female	30	39%
Total	76	100%

The number of deaths per month is slightly higher during January, March and April.

Month	No.of Death Reported	Percentage
January	13	17%
February	3	4%
March	10	13%
April	12	16%
May	9	12%
June	7	9%
July	4	5%
August	7	9%
September	4	5%
October	1	1%
November	5	7%
December	1	1%
Total	76	100%

Analysis for some other causes is available in Annexure - \boldsymbol{I}

Chapter 5: Analysis of Under-5 Child Deaths in rural Chhattisgarh

5.1 District wise no. of Newborn Deaths (0 to 28 days) in 2017

The report covers 5378 of the total 16,273 estimated neonatal deaths in the rural areas of the state. Thus the overall reporting percentage for neonatal deaths is 33%. The reporting percentage is higher from districts like Mungeli, Sukma, Dantewada and is low from districts like Narayanpur, Jashpur, Kanker.

S.N.	District	Rural Population (Census 2011)	Expected no. of Neonatal deaths	Total reported deaths by VHSNC in 2017	No. of Neonatal Deaths Reported in 2016	%	No. of Neonatal Deaths Reported in 2017	%	Reporting %
1	Mungeli	636162	465	2564	223	9.0%	227	8.9%	49%
2	Sukma	221825	179	868	66	7.0%	76	8.8%	43%
3	Dantewada	214830	166	1114	53	4.7%	93	8.3%	56%
4	Koria	453476	414	1160	112	7.2%	92	7.9%	22%
5	Balrampur	695579	547	2403	280	7.1%	185	7.7%	34%
6	Gariyaband	556967	582	2378	276	8.6%	170	7.1%	29%
7	Bemetara	721077	468	3389	259	6.8%	237	7.0%	51%
8	Rajnandgaon	1264980	1248	6775	545	6.2%	460	6.8%	37%
9	Raipur	884237	958	4788	278	5.7%	313	6.5%	33%
10	Bilaspur	1347093	949	4796	323	5.3%	307	6.4%	32%
11	Bijapur	225591	168	1203	45	3.6%	77	6.4%	46%
12	Mahasamund	912166	825	5439	347	5.3%	348	6.4%	42%
13	Bastar	697934	398	2394	144	5.5%	152	6.3%	38%
14	Kondagaon	520382	298	1485	122	6.0%	93	6.3%	31%
15	Durg	617184	419	3738	189	4.8%	228	6.1%	54%
16	Surajpur	717439	585	2926	249	6.6%	178	6.1%	30%
17	Kawardha	734894	948	3210	234	6.6%	194	6.0%	20%
18	Korba	760360	840	2324	209	6.5%	136	5.9%	16%
19	Raigarh	1247346	1029	5494	437	5.9%	312	5.7%	30%
20	Balodabazar	1138729	1147	6046	474	6.9%	338	5.6%	29%
21	Surguja	703294	594	2894	188	5.3%	156	5.4%	26%
22	Janjgir	1395433	996	7288	424	5.3%	352	4.8%	35%
23	Dhamtari	650045	522	4248	228	4.8%	192	4.5%	37%
24	Balod	720697	447	4347	224	5.0%	181	4.2%	40%
25	Kanker	671834	379	3086	154	4.4%	115	3.7%	30%
26	Jashpur	776017	637	4122	196	4.5%	152	3.7%	24%
27	Narayanpur	118087	68	448	21	5.0%	14	3.1%	21%
St	ate Average	19603658	16273	90927	6300	5.9%	5378	5.9%	33%

The neonatal deaths recorded monthly are slightly higher during May and July.

MONTH	No. of Deaths Reported	Percentage %
January	427	8%
February	337	6%
March	405	8%
April	432	8%
May	539	10%
June	433	8%
July	512	10%
August	487	9%
September	421	8%
October	437	8%
November	490	9%
December	458	9%
Total	5378	100%

59% of the neonatal deaths recorded were of male children.

Gender	No. of Deaths reported	Percentage
Female	2200	41%
Male	3178	59%
Total	5378	100%

The causes for 31% of reported neonatal deaths are due to neonatal conditions (Birth Asphyxia & sepsis). Low Birth Weight and Pneumonia were also important causes of neonatal deaths.

Reported Causes	No.of Deaths reported in 2017	% in 2017	% in 2016	% in 2015	% in 2014	% in 2013
Accident	39	0.70%	1%	1%	0%	0%
Convulsion	159	3.00%	4%	3%	3%	2%
Fever	81	1.50%	2%	2%	3%	2%
Neonatal Jaundice	188	3.50%	4%	3%	4%	3%
Low Birth Weight	711	13.20%	16%	17%	14%	11%
Diarrhea	53	1.00%	1%	1%	1%	1%
Pneumonia	337	6.30%	8%	7%	7%	8%
T.B.	4	0.10%	0%	0%	0%	0%
Congenital Heart Disease/Anomalies	74	1.40%	1%			
Digestive Diseases	95	1.80%	3%			
Genito-urinary Diseases	8	0.10%	0%			
Neonatal Diabetes	7	0.10%	0%			
Sickle Cell Anemia	6	0.10%	0%			
Birth Asphyxia	926	17.22%	500/	610/	620/	<i>C</i> 00/
Neonatal sepsis	433	8.05%	59%	61%	63%	60%
Other	2257	42%	1%	5%	6%	12%
Total	5378	100%	100%	100%	100%	100%

Reported symptoms of Neonatal sepsis:

Reported Symptoms	No.of Deaths	%
Pus on umbilicus	19	4.39%
Distended abdomen	61	14.09%
Hypothermia	12	2.77%
Cry weak/stopped	22	5.08%
Increased Respiratory Rate	61	14.09%
Unconsciousness	39	9.01%
Feeding less/stopped	219	50.58%
Total	433	100%

5.2 District wise no. of Post-Neonatal Infant Deaths (29 days to 11 months age group) in 2017

The report covers 1676 of the total 6,614 estimated deaths in the 1-11 month age group in rural areas of the state. Thus the overall reporting percentage for this set of deaths is 25%. The reporting percentage is higher from districts like Bijapur, Sukma, Kawardha and is low from districts like Narayanpur, Raigarh and Kanker.

S.N.	District	Rural Population (Census 2011)	Expected no. of Neonatal deaths	Total reported deaths by VHSNC	No. of Post- Neonatal Deaths Reported in 2016	%	No. of Post- Neonatal Deaths Reported in 2017	%	Reporting %
1	Bijapur	225591	87	1203	74	6.0%	49	4.1%	57%
2	Sukma	221825	92	868	63	6.6%	35	4.0%	38%
3	Kawardha	734894	361	3210	118	3.3%	101	3.1%	28%
4	Dantewada	214830	86	1114	32	2.9%	34	3.1%	40%
5	Kondagaon	520382	154	1485	66	3.3%	45	3.0%	29%
6	Balrampur	695579	434	2403	156	3.9%	68	2.8%	16%
7	Bastar	697934	206	2394	102	3.9%	61	2.5%	30%
8	Gariyaband	556967	123	2378	98	3.1%	58	2.4%	47%
9	Surguja	703294	471	2894	108	3.1%	70	2.4%	15%
10	Bilaspur	1347093	402	4796	196	3.2%	106	2.2%	26%
11	Mungeli	636162	197	2564	60	2.4%	56	2.2%	28%
12	Raipur	884237	202	4788	71	1.5%	100	2.1%	50%
13	Bemetara	721077	226	3389	102	2.7%	70	2.1%	31%
14	Jashpur	776017	372	4122	101	2.3%	74	1.8%	20%
15	Surajpur	717439	464	2926	132	3.5%	51	1.7%	11%
16	Durg	617184	202	3738	67	1.7%	65	1.7%	32%
17	Balodabazar	1138729	241	6046	160	2.3%	103	1.7%	43%
18	Dhamtari	650045	169	4248	63	1.3%	70	1.6%	41%
19	Koria	453476	176	1160	58	3.7%	19	1.6%	11%
20	Rajnandgaon	1264980	384	6775	204	2.3%	109	1.6%	28%
21	Korba	760360	229	2324	83	2.6%	32	1.4%	14%
22	Mahasamund	912166	423	5439	111	1.7%	71	1.3%	17%
23	Janjgir	1395433	410	7288	157	2.0%	92	1.3%	22%
24	Balod	720697	216	4347	47	1.0%	48	1.1%	22%
25	Kanker	671834	267	3086	55	1.6%	31	1.0%	12%
26	Raigarh	1247346	433	5494	125	1.7%	54	1.0%	12%
27	Narayanpur	118087	35	448	17	4.0%	4	0.9%	11%
St	ate Average	19603658	6614	90927	2626	2.4%	1676	1.8%	25%

The post-neonatal infant deaths recorded monthly are slightly higher during May and October.

Month	No.of Death Reported	%
January	145	9%
February	124	7%
March	128	8%
April	158	9%
May	181	11%
June	117	7%
July	135	8%
August	123	7%
September	114	7%
October	166	10%
November	145	9%
December	140	8%
Total	1676	100%

51% of the post-neonatal deaths recorded were of male children.

Gender	No.of Death Reported	%
Male	863	51%
Female	813	49%
Total	1676	100%

Information regarding the specific cause of death has been recorded by VHSNCs. Pneumonia, Malnutrition and Congenital Heart Disease/Anomalies were the most common causes of deaths. Fever/Malaria, Diarrhoea and convulsion were also important causes.

Reported Causes	No.of Deaths reported in 2017	% in 2017	% in 2016	% in 2015	% in 2014	% in 2013
Accident	51	3%	4%	5%	1%	4%
Convulsion	61	4%	5%	3%	2%	2%
Fever/Malaria	118	7%	9%	10%	13%	16%
Childhood Jaundice	64	4%	4%	3%	4%	5%
Malnutrition	141	8%	15%	8%	10%	8%
Pneumonia	317	19%	35%	30%	28%	20%
Snake bite	7	0%	0%	0%	0%	0%
Diarrhea	81	5%	7%	6%	6%	8%
T.B.	4	0%	0%	0%	0%	1%
Congenital Heart Disease/Anomalies	139	8%	10%			
Digestive Diseases	53	3%	5%			
Genito-urinary Diseases	4	0%	0%			
Diabetes	0	0%	0%			
Sickle Cell Anemia	8	0%	0%			
Cancer	9	1%	0%			
Other	619	37%	4%	35%	35%	35%
Total	1676	100%	100%	100%	100%	100%

5.3 District wise no. of Child Deaths (1 to 4 years) in 2017

The report covers 1918 of the total 8,032 estimated deaths in the 1-4 year age group (older than 1 year and yet to complete 5 years age) in rural areas of the state. Thus the overall reporting percentage for this set of deaths is 24%. The reporting percentage is higher from districts like Narayanpur, Balrampur, Sukma and is low from districts like Raigarh, Kanker, Balod.

S.N.	District	Rural Population (Census 2011)	Expected no. of Neonatal deaths	Total reported deaths by VHSNC in 2017	No. of Child Deaths Reported in 2016	%	No. of Child Deaths Reported in 2017	%	Reporting %
1	Narayanpur	118087	38	448	17	4.0%	20	4.5%	53%
2	Balrampur	695579	773	2403	182	4.6%	106	4.4%	14%
3	Sukma	221825	115	868	46	4.8%	34	3.9%	29%
4	Bijapur	225591	97	1203	53	4.3%	47	3.9%	48%
5	Bastar	697934	191	2394	74	2.8%	92	3.8%	48%
6	Dantewada	214830	102	1114	51	4.5%	42	3.8%	41%
7	Bemetara	721077	162	3389	75	2.0%	100	3.0%	62%
8	Korba	760360	191	2324	87	2.7%	64	2.8%	34%
9	Surguja	703294	880	2894	82	2.3%	74	2.6%	8%
10	Mungeli	636162	286	2564	67	2.7%	63	2.5%	22%
11	Koria	453476	186	1160	31	2.0%	28	2.4%	15%
12	Kawardha	734894	361	3210	147	4.1%	77	2.4%	21%
13	Durg	617184	159	3738	45	1.1%	88	2.4%	55%
14	Bilaspur	1347093	548	4796	127	2.1%	111	2.3%	20%
15	Gariyaband	556967	199	2378	54	1.7%	53	2.2%	27%
16	Kondagaon	520382	154	1485	69	3.4%	33	2.2%	21%
17	Surajpur	717439	847	2926	64	1.7%	65	2.2%	8%
18	Raipur	884237	353	4788	63	1.3%	98	2.0%	28%
19	Jashpur	776017	531	4122	63	1.4%	75	1.8%	14%
20	Janjgir	1395433	352	7288	93	1.2%	128	1.8%	36%
21	Mahasamund	912166	233	5439	91	1.4%	92	1.7%	40%
22	Balodabazar	1138729	362	6046	121	1.8%	101	1.7%	28%
23	Rajnandgaon	1264980	288	6775	140	1.6%	104	1.5%	36%
24	Dhamtari	650045	127	4248	34	0.7%	60	1.4%	47%
25	Balod	720697	139	4347	43	1.0%	56	1.3%	40%
26	Kanker	671834	239	3086	39	1.1%	39	1.3%	16%
27	Raigarh	1247346	379	5494	103	1.4%	68	1.2%	18%
St	ate Average	19603658	8032	90927	2061	1.9%	1918	2.1%	24%

The 1-4 year age group deaths recorded monthly are slightly higher during July to October.

Month	No.of Death Reported	%
January	135	7%
February	110	6%
March	137	7%
April	143	7%
May	188	10%
June	146	8%
July	199	10%
August	198	10%
September	198	10%
October	203	11%
November	152	8%
December	109	6%
Total	1918	100%

53% of the 1-4 year age group deaths recorded were of male children.

Gender	No.of Death Reported	%
Male	1014	53%
Female	904	47%
Total	1918	100%

Accidents were the most common cause. Fever/Malaria and Pneumonia were also important causes.

Reported Causes	No.of Deaths reported in 2017	% in 2017	% in 2016	% in 2015	% in 2014	% in 2013
Accident	261	14%	14%	12%	10%	12%
Convulsion	126	7%	7%	5%	3%	4%
Fever/Malaria	213	11%	17%	17%	21%	20%
Jaundice	119	6%	8%	6%	6%	6%
Malnutrition	116	6%	10%	6%	5%	5%
Pneumonia	199	10%	13%	10%	10%	7%
Snake bite	41	2%	2%	1%	2%	2%
Diarrhea	113	6%	8%	7%	6%	5%
T.B.	15	1%	0%	1%	1%	1%
Rabies	4	0%	0%	1%	1%	1%
Congenital Heart Disease/Anomalies	139	7%	8%			
Digestive Diseases	114	6%	7%			
Genito-urinary Diseases	2	0%	0%			
Diabetes	7	0%	0%			
Sickle Cell Anemia	30	2%	2%			
Cancer	37	2%	1%			
Other	382	20%	2%	35%	35%	37%
Total	1918	100%	100%	100%	100%	100%

Analysis of age groups older than 5 yrs age is available in Annexure - ${\bf II}$

Chapter 6: Analysis of Maternal Deaths in rural Chhattisgarh

District wise no. of Maternal (14-49 yrs) Deaths reported:

VHSNCs have reported 317 deaths during 2017 for which the cause is recorded as maternal death.

S.N.	District	Rural Population (Census 2011)	Total reported deaths by VHSNC	No.of Maternal Death reported by VHSNC in 2016	%	No.of Maternal Death reported by VHSNC in 2017	%
1	Sukma	221825	868	7	0.7%	8	0.9%
2	Mungeli	636162	2564	17	0.7%	20	0.8%
3	Balrampur	695579	2403	27	0.7%	18	0.7%
4	Kondagaon	520382	1485	14	0.7%	8	0.5%
5	Raipur	884237	4788	18	0.4%	25	0.5%
6	Dhamtari	650045	4248	6	0.1%	22	0.5%
7	Gariyaband	556967	2378	24	0.8%	12	0.5%
8	Bilaspur	1347093	4796	21	0.3%	23	0.5%
9	Koria	453476	1160	5	0.3%	5	0.4%
10	Mahasamund	912166	5439	22	0.3%	23	0.4%
11	Janjgir	1395433	7288	29	0.4%	25	0.3%
12	Kawardha	734894	3210	17	0.5%	11	0.3%
13	Bijapur	225591	1203	5	0.4%	4	0.3%
14	Surajpur	717439	2926	10	0.3%	9	0.3%
15	Balodabazar	1138729	6046	33	0.5%	18	0.3%
16	Raigarh	1247346	5494	19	0.3%	16	0.3%
17	Rajnandgaon	1264980	6775	25	0.3%	19	0.3%
18	Durg	617184	3738	6	0.2%	9	0.2%
19	Balod	720697	4347	8	0.2%	10	0.2%
20	Narayanpur	118087	448	1	0.2%	1	0.2%
21	Bastar	697934	2394	13	0.5%	5	0.2%
22	Dantewada	214830	1114	5	0.4%	2	0.2%
23	Bemetara	721077	3389	6	0.2%	6	0.2%
24	Jashpur	776017	4122	13	0.3%	7	0.2%
25	Surguja	703294	2894	15	0.4%	4	0.1%
26	Kanker	671834	3086	5	0.1%	4	0.1%
27	Korba	760360	2324	13	0.4%	3	0.1%
St	ate Average	19603658	90927	384	0.4%	317	0.3%

Month wise no. of Maternal Deaths reported:

The number of deaths per month is slightly higher during May to September.

Month	No.of Death Reported	Percentage
January	17	5%
February	12	4%
March	21	7%
April	24	8%
May	46	15%
June	24	8%
July	36	11%
August	38	12%
September	31	10%
October	28	9%
November	22	7%
December	18	6%
Total	317	100%

Cause wise no. of Maternal death in 2017

S.N.	Reported Causes	No. of Deaths	%
1	Maternal causes	272	86%
2	Accidents	7	2%
3	Convulsion	16	5%
4	Fever/ Malaria	6	2%
5	Malnutrition	1	0%
6	Diarrhea	2	1%
7	Pneumonia	1	0%
8	Jaundice	2	1%
9	Heart Disease	5	2%
10	Digestive Disease	1	0%
11	Snake bite	1	0%
12	Sickle Cell Disease	3	1%
	Total	317	100%

Chapter 7 : District wise variation of cause of deaths in rural Chhattisgarh

The Table below gives the proportion of deaths suspected due to 17 specific causes for each district. It helps to assess the proportion of preventable premature deaths for districts. Bijapur, Sukma, Dantewada, Koriya and Balrampur have relatively high proportion of deaths due to preventable causes. The pattern shows that districts in Bastar and Surguja divisions along with Kwardha have more deaths due to preventable causes. The pattern also shows that in such reasons, communicable diseases like Malaria. Diarrhea, Pneumonia are most important contributors.

On the other hand, Balod, Durg, Rajnandgaon, Mahasmund, Dhamtari and Janjgir districts have lower proportion of deaths due to preventable causes. Most of the districts in Raipur and Durg division followed by Bilaspur division have relatively less deaths due to preventable causes.

S.N.	District	Total reported deaths by VHSNC	% of Fever/ Malaria deaths	% of Pneumonia deaths	% of Diarrhea deaths	% of Jaundice deaths	% of TB deaths	% of Accident deaths	% of Suicide deaths	% of Murder deaths	% of Snake Bite deaths	% of Doge Bite deaths	% of Maternal deaths	% of Neonatal causes deaths	% of Malnutrition deaths	% of Convulsion deaths	% of Old age & other deaths
1	BIJAPUR	1203	10.6%	3.7%	2.2%	4.6%	5.7%	9.3%	5.4%	2.0%	1.8%	0.2%	0.3%	6.4%	1.0%	0.6%	26%
2	SUKMA	868	5.0%	2.6%	3.1%	1.0%	7.3%	9.0%	5.5%	1.5%	2.1%	0.0%	0.9%	8.8%	2.1%	2.3%	35%
3	BASTAR	2394	4.7%	1.9%	2.5%	2.6%	3.3%	8.7%	3.3%	0.7%	0.9%	0.3%	0.2%	6.3%	1.9%	1.3%	28%
4	DANTEWADA	1114	3.8%	3.1%	1.5%	2.5%	2.7%	8.6%	5.7%	0.9%	2.0%	0.0%	0.2%	8.3%	2.2%	0.7%	40%
5	RAIGARH	5494	3.3%	0.3%	1.2%	1.9%	2.7%	5.7%	3.0%	0.5%	0.6%	0.1%	0.3%	5.7%	2.1%	1.2%	31%
6	KORIA	1160	3.3%	0.4%	1.5%	1.1%	2.2%	9.2%	3.7%	0.5%	1.5%	0.3%	0.4%	7.9%	2.1%	1.3%	33%
7	BALODABAZAR	6046	3.2%	1.0%	0.6%	2.6%	2.2%	7.4%	2.8%	0.1%	0.3%	0.0%	0.3%	5.6%	1.8%	0.7%	39%
8	SURGUJA	2894	3.1%	0.7%	1.9%	1.9%	1.5%	9.6%	3.4%	1.2%	0.7%	0.1%	0.1%	5.4%	1.8%	0.3%	32%
9	BILASPUR	4796	3.0%	1.6%	0.6%	1.8%	1.6%	7.4%	3.0%	0.5%	0.7%	0.1%	0.5%	6.4%	2.1%	1.1%	30%
10	BALRAMPUR	2403	2.9%	0.8%	2.2%	2.7%	2.0%	9.7%	2.9%	0.9%	1.8%	0.0%	0.7%	7.7%	2.5%	0.7%	27%
11	GARIYABAND	2378	2.5%	2.3%	1.6%	2.7%	2.5%	4.2%	3.2%	0.3%	0.5%	0.0%	0.5%	7.1%	3.4%	0.6%	45%
12	NARAYANPUR	448	2.2%	0.4%	2.7%	2.5%	4.9%	6.9%	4.9%	2.0%	1.3%	0.0%	0.2%	3.1%	3.1%	1.8%	25%
13	MUNGELI	2564	2.1%	1.7%	0.8%	2.6%	1.2%	6.6%	2.4%	0.3%	1.0%	0.0%	0.8%	8.9%	2.3%	1.7%	27%
14	JASHPUR	4122	2.1%	0.4%	1.0%	1.6%	2.3%	8.7%	2.4%	0.7%	0.4%	0.2%	0.2%	3.7%	2.3%	0.5%	42%
15	BEMETARA	3389	2.0%	1.5%	0.8%	2.8%	2.3%	5.2%	2.3%	0.8%	0.4%	0.1%	0.2%	7.0%	2.0%	0.8%	33%
16	KANKER	3086	1.7%	1.3%	1.2%	2.2%	3.3%	6.2%	4.1%	0.3%	1.1%	0.0%	0.1%	3.7%	0.9%	0.7%	34%
17	RAIPUR	4788	1.6%	1.2%	0.5%	1.6%	1.6%	7.8%	4.5%	0.6%	0.3%	0.0%	0.5%	6.5%	1.2%	1.0%	35%
18	DHAMTARI	4248	1.6%	0.6%	0.8%	2.1%	2.4%	5.6%	4.4%	0.3%	0.2%	0.0%	0.5%	4.5%	1.2%	0.5%	34%
19	JANJGIR	7288	1.6%	0.5%	0.7%	2.2%	1.3%	6.9%	2.9%	0.3%	0.8%	0.1%	0.3%	4.8%	1.4%	0.9%	28%
20	KAWARDHA	3210	1.4%	1.8%	1.6%	2.1%	2.2%	6.2%	2.7%	0.5%	0.9%	0.1%	0.3%	6.0%	1.9%	1.9%	28%
21	MAHASAMUND	5439	1.2%	0.6%	0.6%	1.4%	1.9%	5.9%	3.4%	0.1%	0.5%	0.1%	0.4%	6.4%	1.7%	0.6%	45%
22	KONDAGAON	1485	1.1%	2.9%	2.2%	2.4%	3.2%	8.8%	5.6%	0.8%	1.3%	0.2%	0.5%	6.3%	2.2%	1.8%	36%
23	RAJNANDGAON	6775	1.0%	1.0%	0.8%	2.1%	1.5%	5.2%	2.8%	0.3%	0.5%	0.1%	0.3%	6.8%	2.4%	1.1%	35%
24	KORBA	2324	0.9%	0.8%	0.6%	1.7%	2.7%	7.9%	3.3%	0.7%	0.9%	0.1%	0.1%	5.9%	2.6%	1.4%	34%
25	SURAJPUR	2926	0.9%	1.4%	0.7%	2.0%	2.7%	10.0%	4.3%	0.8%	0.5%	0.1%	0.3%	6.1%	2.5%	0.3%	30%
26	BALOD	4347	0.9%	0.7%	0.3%	1.8%	1.2%	5.1%	3.6%	0.2%	0.2%	0.0%	0.2%	4.2%	1.0%	0.2%	41%
27	DURG	3738	0.6%	0.8%	0.4%	2.0%	1.2%	6.3%	4.8%	0.2%	0.3%	0.1%	0.2%	6.1%	1.1%	0.9%	24%
S	tate Average	90927	2.1%	1.1%	1.0%	2.1%	2.1%	6.9%	3.4%	0.5%	0.7%	0.1%	0.3%	5.9%	1.8%	0.9%	34%

Chapter 8 : Analysis of Urban-Slum Deaths in Chhattisgarh

Mahila Aarogya Samitis (MAS) i.e. Women's Health Committees are formed at each Mitanin's Urban-Slum area in 19 city of Chhattisgarh under the National Urban Health Mission (NUHM). The objectives of MAS is to Monitor the Health, Nutrition and Sanitation of the ward, Available the information of Govt. Schemes to community, To build-up a local level work plan through the participation of community, To help the more poor and remotest family, To help for access the health services and To improve the participation on Health, Nutrition and Sanitation related issues.

MAS are mandated to record the deaths happening in their area. One of the key purposes of keeping a register of deaths in MAS is to enable health monitoring. The death registers of MAS are compiled and computerized into a database at the state level by SHRC.

The causes of the deaths analysed in this report are as perceived and reported by the communities in MAS meetings. Therefore the definitions may not match with the technical definitions. Despite this issue, the information available through MAS registers is still useful for understand the likely and approximate causes of a large share of deaths in the state.

This report analyses nearly 9177 Urban-Slum deaths that were recorded by MAS during the year 2017. The deaths covered in 2017 compilation constitute 77% of total no. of deaths expected according to Crude Death Rate of the state (SRS 2015). The urban data pertains to slums of 19 cities with 1977237 slum population (according to Mitanin Database).

MAS based system of recording deaths and causes and its compilation and analysis is a new step. Soon, it will mature and be more useful in providing a clearer picture of mortality in urban-slum parts the state.

Deaths	Expected urban slum Deaths	No.of reported deaths in 2015	%	No.of reported deaths in 2016	%	No.of reported deaths in 2017	%
Overall Deaths	11863	2764	23%	8162	69%	9177	77%
Neonatal Deaths	830	525	63%	743	89%	703	85%
1-11 month age group Deaths	435	97	22%	173	40%	158	36%
1-4 Year age group Deaths	119	60	51%	114	96%	127	107%
Maternal Deaths	96	14	15%	26	27%	35	36%
Other age groups	10383	2068	20%	7106	68%	8154	79%

Urban-slum city wise no. of deaths reported

S.N.	Name of City	Expected no. of deaths	No. of Deaths Reported in 2015	%	No. of Deaths Reported in 2016	%	No. of Deaths Reported in 2017	%
1	Ambikapur	291	58	20%	75	26%	115	40%
2	Bhatapara	206	57	28%	206	100%	185	90%
3	Bhillai	1593	178	11%	733	46%	765	48%
4	Bilaspur	1194	193	16%	697	58%	936	78%
5	Birgaon	286	28	10%	132	46%	196	69%
6	Charoda	362	140	39%	358	99%	336	93%
7	Chirmiri	382	97	25%	290	76%	250	66%
8	Dhamtari	401	150	37%	435	109%	380	95%
9	Durg	760	155	20%	840	110%	883	116%
10	Jagdalpur	334	50	15%	190	57%	295	88%
11	Janjgir	80	74	93%	154	193%	167	210%
12	Kanker	75	47	63%	162	217%	160	214%
13	Kawardha	67	48	72%	150	226%	125	188%
14	Korba	1454	160	11%	501	34%	681	47%
15	Mahasamund	255	71	28%	160	63%	129	51%
16	Mungeli	161	51	32%	94	58%	118	73%
17	Raigarh	540	141	26%	545	101%	493	91%
18	Raipur	2788	942	34%	1930	69%	2300	82%
19	Rajnandgaon	636	124	19%	510	80%	663	104%
	TOTAL	11863	2764	23%	8162	69%	9177	77%

The analysis of causes recorded by MAS shows the following as the common causes for majority of deaths in different age categories:

Table: Causes for deaths reported in different age categories

S.N.	Reported Causes	0 to28 days	1-11 months	1-4 yrs	5 to 14 yrs	15 to 49 yrs	50 to 59 yrs	60 to 69 yrs	Above 70 yrs	Total
1	Accident	1	2	21	53	348	80	93	141	739
2	Convulsions	11	14	8	4	8	3	4	6	58
3	Fever/ Malaria	4	11	13	17	51	24	34	35	189
4	Neonatal Jaundice	15								15
5	Jaundice		3	7	7	80	14	17	10	138
6	Low Birth Weight	50								50
7	Malnutrition		11	5	1	1	0	0		18
8	Diarrhea	1	5	10	6	24	7	7	15	75
9	Pneumonia	10	29	12	9	12	4	8	6	90
10	Heart Disease/Stroke (including Congenital Heart Disease/Anomalies)	10	31	22	6	426	440	478	497	1910
11	Digestive Diseases	4	4	6	9	166	75	54	54	372
12	Genito-urinary Diseases	0	0	0	0	0	0	2		2
13	Diabetes	1	0	1	2	69	71	83	101	328
14	HIV/AIDS	0	0	0	1	40	7	1	3	52
15	T.B.	0	0	1	4	125	59	35	31	255
16	Snake Bite		0	0	2	4	0	0	1	7
17	Rabies			0	1	7	2	1	3	14
18	Birth Asphyxia	131								333
19	Neonatal Sepsis	38								38
20	Maternal causes					15				15
21	Murder					43	0	2	2	47
22	Suicide					386	47	20	16	469
23	Sickle Cell Anemia			0	6	33	1	1		41
24	Cancer	1	0	2	12	195	118	101	76	505
25	Others	426	48	19			3126			3619
	Total	703	158	127	3266	2033	952	941	997	9177

In urban slum areas, Heart Disease/stroke, Neonatal conditions, Accidents, Suicide, Cancer and Diabetes are leading cause of deaths. Amongst infectious diseases, TB and Fever/Malaria are the leading cause of death in urban slums.

Classification of causes of Neonatal Deaths (below age of 28 days):

703 Neonatal deaths were reported by MAS. An attempt has been made to further unpack this category by causes. For this purpose, a sample of 277 deaths was drawn and details available regarding the specific primary cause of death were coded. It shows the following picture:

Reported Cause	No.of Deaths	%
Accident	1	0.15%
Convulsion	11	1.65%
Fever	4	0.60%
Neonatal Jaundice	15	2.26%
Low Birth Weight	50	7.52%
Diarrhoea	1	0.15%
Pneumonia	10	1.50%
T.B.	0	0.00%
Congenital Heart Disease/Anomalies	10	1.50%
Digestive Diseases	4	0.60%
Genito-urinary Diseases	0	0.00%
Neonatal Diabetes	1	0.15%
Sickle Cell Anemia	0	0.00%
Neonatal Cancer	1	0.15%
Birth Asphyxia	131	19.70%
Neonatal sepsis	38	5.71%
Other	426	64.06%
Total	665	100.00%

18% deaths due birth asphyxia, is the most common cause of neonatal deaths. Premature births and Low birth weight are also important causes of neonatal deaths.

Reported Symptoms	No.of Deaths	%
Pus on umbilicus	2	5.26%
Distended abdomen	5	13.16%
Hypothermia	3	7.89%
Cry weak/stopped	0	0.00%
Increased RR	8	21.05%
Unconsciousness	14	36.84%
Feeding less/stopped	6	15.79%
Total	38	100.00%

Year	0-59 yrs Total deaths	0-59 yrs Fever/Malaria	%	Total Fever/Malaria in 19 city	Total Fever/Malari a in 5 city	%	0-59 yrs Pneumonia	%	0-59 yrs Diarrhea	%
2015	2067	100	4.8%	149	28	1.4%	67	3.2%	32	1.5%
2016	7092	97	1.4%	156	34	0.5%	59	0.8%	61	0.9%
2017	7239	120	1.7%	189	46	0.6%	76	1.0%	53	0.7%

Chapter 9: Conclusion

This analysis shows that compiling death Registers of VHSNCs and MAS is a useful tool to identify approximate causes of mortality. It helps in identifying the key public health problems on which the efforts need to be focused.

Most common reported causes of deaths by age groups: The below analysis of causes recorded shows the following situation in Chhattisgarh:

A. Causes for deaths reported in different age categories in Rural Chhattisgarh

S.N.	Domested Courses	0 to28	1-11	1-4	5 to	15 to	50 to	60 to 69	Above	Total
3.11.	Reported Causes	days	months	yrs	14 yrs	49 yrs	59 yrs	yrs	70 yrs	Total
1	Accident	39	51	261	530	3458	681	514	772	6306
2	Convulsion	159	61	126	90	233	41	55	57	822
3	Fever/ Malaria	81	118	213	259	502	139	190	425	1927
4	Neonatal Jaundice	188								188
5	Jaundice		64	119	181	851	197	137	163	1712
6	Low Birth Weight	711								711
7	Malnutrition		141	116	21	25	3	10	57	373
8	Diarrhea	53	81	113	91	218	78	91	180	905
9	Pneumonia	337	317	199	45	59	12	4	19	992
10	T.B.	4	4	15	19	797	376	356	364	1935
11	Snake Bite		7	41	119	298	64	47	35	611
12	Rabies			4	16	19	18	9	10	76
13	Birth Asphyxia	926								926
14	Neonatal Sepsis	433								433
15	Maternal causes					272				272
16	Murder					323	50	44	32	449
17	Suicide					2401	338	195	171	3105
18	Cancer	0	9	37	74	1513	958	879	843	4313
19	HIV/AIDS				4	86	11	9	3	113
20	Heart Disease/Stroke (Including CHD/Anomalies)	74	139	139	203	3565	3313	5001	10462	22896
21	Digestive Diseases	95	53	114	179	1441	696	713	919	4210
22	Genito-urinary Diseases	8	4	2	3	41	14	29	50	151
23	Diabetes	7	0	7	25	594	555	777	1067	3032
24	Sickle Cell Anemia	6	8	30	112	265	34	25	26	506
25	Others	2257	619	382	583	5297	3150	5014	16661	33963
	Total	5378	1676	1918	2554	22258	10728	14099	32316	90927

The following table gives the proportion of a cause for each age-group. The important causes for each age have been shaded. Overall Stroke, Accidents, Pneumonia and Malaria emerge as most important causes for deaths below age of 60.

S.N.	Donasta d Course	0 to28	1-11	1.4	5 to 14	15 to 49	50 to 59	60 to 69	Above	Total
	Reported Causes	days	months	1-4 yrs	yrs	yrs	yrs	yrs	70 yrs	6.00/
1	Accident	0.7%	3.0%	13.6%	20.8%	15.5%	6.3%	3.6%	2.4%	6.9%
2	Convulsions	3.0%	3.6%	6.6%	3.5%	1.0%	0.4%	0.4%	0.2%	0.9%
3	Fever/ Malaria	1.5%	7.0%	11.1%	10.1%	2.3%	1.3%	1.3%	1.3%	2.1%
4	Neonatal Jaundice	3.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%
5	Jaundice	0.0%	3.8%	6.2%	7.1%	3.8%	1.8%	1.0%	0.5%	1.9%
6	Low Birth Weight	13.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.8%
7	Malnutrition	0.0%	8.4%	6.0%	0.8%	0.1%	0.0%	0.1%	0.2%	0.4%
8	Diarrhoea	1.0%	4.8%	5.9%	3.6%	1.0%	0.7%	0.6%	0.6%	1.0%
9	Pneumonia	6.3%	18.9%	10.4%	1.8%	0.3%	0.1%	0.0%	0.1%	1.1%
10	T.B.	0.1%	0.2%	0.8%	0.7%	3.6%	3.5%	2.5%	1.1%	2.1%
11	Snake Bite	0.0%	0.4%	2.1%	4.7%	1.3%	0.6%	0.3%	0.1%	0.7%
12	Rabies	0.0%	0.0%	0.2%	0.6%	0.1%	0.2%	0.1%	0.0%	0.1%
13	Birth Asphyxia	17.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.8%
14	Neonatal Sepsis	8.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.5%
15	Maternal causes	0.0%	0.0%	0.0%	0.0%	1.2%	0.0%	0.0%	0.0%	0.3%
16	Murder	0.0%	0.0%	0.0%	0.0%	1.5%	0.5%	0.3%	0.1%	0.5%
17	Suicide	0.0%	0.0%	0.0%	0.0%	10.8%	3.2%	1.4%	0.5%	3.4%
18	Cancer	0.0%	0.5%	1.9%	2.9%	6.8%	8.9%	6.2%	2.6%	4.7%
19	HIV/AIDS	0.0%	0.0%	0.0%	0.2%	0.4%	0.1%	0.1%	0.0%	0.1%
	Heart Disease/Stroke									
20	(Including	1.4%	8.3%	7.2%	7.9%	16.0%	30.9%	35.5%	32.4%	25.2%
	CHD/Anomalies)									
21	Digestive Diseases	1.8%	3.2%	5.9%	7.0%	6.5%	6.5%	5.1%	2.8%	4.6%
22	Genito-urinary Diseases	0.1%	0.2%	0.1%	0.1%	0.2%	0.1%	0.2%	0.2%	0.2%
23	Diabetes	0.1%	0.0%	0.4%	1.0%	2.7%	5.2%	5.5%	3.3%	3.3%
24	Sickel Cell Anemia	0.1%	0.5%	1.6%	4.4%	1.2%	0.3%	0.2%	0.1%	0.6%
25	Others	42.0%	36.9%	19.9%	22.8%	23.8%	29.4%	35.6%	51.6%	37.4%
	Total	100%	100%	100%	100%	100%	100%	100%	100%	100%

- > 0 to 28 days neonates, Newborn causes (Birth Asphyxia and Sepsis) are the leading causes of death.
- ➤ 1 to 11 month children, Pneumonia is the leading cause of death.
- ➤ 1 to 4 years children, Accident, Fever/Malaria and Pneumonia are the leading causes of death
- > 5 to 14 year age group, Accident, Fever/Malaria, heart disease and Jaundice are the leading causes of death.

- ➤ 15-49 years age group, Accidents, Suicides and Heart Disease/stroke are the leading causes of death.
- ➤ For 50-59 years age groups, Heart Disease/stroke, Cancer, Accident, Diabetes and Fever/Malaria are the leading causes of death. For deaths in 60-69 years and 70 years and above age groups, same set of causes dominate.

B. Causes for deaths reported in different age categories in Urban-Slum areas of Chhattisgarh

S.N.	Reported Causes	0 to28 days	1-11 months	1-4 yrs	5 to 14 yrs	15 to 49 yrs	50 to 59 yrs	60 to 69 yrs	Above 70 yrs	Total
1	Accident	1	2	21	53	348	80	93	141	739
2	Convulsions	11	14	8	4	8	3	4	6	58
3	Fever/ Malaria	4	11	13	17	51	24	34	35	189
4	Neonatal Jaundice	15								15
5	Jaundice		3	7	7	80	14	17	10	138
6	Low Birth Weight	50								50
7	Malnutrition		11	5	1	1	0	0		18
8	Diarrhea	1	5	10	6	24	7	7	15	75
9	Pneumonia	10	29	12	9	12	4	8	6	90
10	Heart Disease/Stroke (including Congenital Heart Disease/Anomalies)	10	31	22	6	426	440	478	497	1910
11	Digestive Diseases	4	4	6	9	166	75	54	54	372
12	Genito-urinary Diseases	0	0	0	0	0	0	2		2
13	Diabetes	1	0	1	2	69	71	83	101	328
14	HIV/AIDS	0	0	0	1	40	7	1	3	52
15	T.B.	0	0	1	4	125	59	35	31	255
16	Snake Bite		0	0	2	4	0	0	1	7
17	Rabies			0	1	7	2	1	3	14
18	Birth Asphyxia	131								333
19	Neonatal Sepsis	38								38
20	Maternal causes					15				15
21	Murder					43	0	2	2	47
22	Suicide					386	47	20	16	469
23	Sickle Cell Anemia			0	6	33	1	1		41
24	Cancer	1	0	2	12	195	118	101	76	505
25	Others	426	48	19			3126			3619
	Total	703	158	127	3266	2033	952	941	997	9177

In urban slum areas, Heart Disease/stroke, Neonatal conditions, Accidents, Suicide, Cancer and Diabetes are leading cause of death. Amongst infectious diseases, TB and Fever/Malaria are the leading cause of death in urban slums.

S.N.	Reported Causes	0 to28 days	1-11 months	1-4 yrs	5 to 14 years	15 to 49 years	50 to 59 yrs	60 to 69 yrs	Above 70 years	Total
1	Accident	0.1%	1.3%	16.5%	1.6%	17.1%	8.4%	9.9%	14.1%	8.1%
2	Convulsions	1.6%	8.9%	6.3%	0.1%	0.4%	0.3%	0.4%	0.6%	0.6%
3	Fever/ Malaria	0.6%	7.0%	10.2%	0.5%	2.5%	2.5%	3.6%	3.5%	2.1%
4	Neonatal Jaundice	2.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%
5	Jaundice	0.0%	1.9%	5.5%	0.2%	3.9%	1.5%	1.8%	1.0%	1.5%
6	Low Birth Weight	7.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.5%
7	Malnutrition	0.0%	7.0%	3.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%
8	Diarrhoea	0.1%	3.2%	7.9%	0.2%	1.2%	0.7%	0.7%	1.5%	0.8%
9	Pneumonia	1.4%	18.4%	9.4%	0.3%	0.6%	0.4%	0.9%	0.6%	1.0%
10	Heart Disease/Stroke (including Congenital Heart Disease/Anomalies)	1.4%	19.6%	17.3%	0.2%	21.0%	46.2%	50.8%	49.8%	20.8%
11	Digestive Diseases	0.6%	2.5%	4.7%	0.3%	8.2%	7.9%	5.7%	5.4%	4.1%
12	Genito-urinary Diseases	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%	0.0%	0.0%
13	Diabetes	0.1%	0.0%	0.8%	0.1%	3.4%	7.5%	8.8%	10.1%	3.6%
14	HIV/AIDS	0.0%	0.0%	0.0%	0.0%	2.0%	0.7%	0.1%	0.3%	0.6%
15	T.B.	0.0%	0.0%	0.8%	0.1%	6.1%	6.2%	3.7%	3.1%	2.8%
16	Snake Bite	0.0%	0.0%	0.0%	0.1%	0.2%	0.0%	0.0%	0.1%	0.1%
17	Rabies	0.0%	0.0%	0.0%	0.0%	0.3%	0.2%	0.1%	0.3%	0.2%
18	Birth Asphyxia	18.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.4%
19	Neonatal Sepsis	5.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.4%
20	Maternal causes	0.0%	0.0%	0.0%	0.0%	0.7%	0.0%	0.0%	0.0%	0.2%
21	Murder	0.0%	0.0%	0.0%	0.0%	2.1%	0.0%	0.2%	0.2%	0.5%
22	Suicide	0.0%	0.0%	0.0%	0.0%	19.0%	4.9%	2.1%	1.6%	5.1%
23	Sickel Cell Anemia	0.0%	0.0%	0.0%	0.2%	1.6%	0.1%	0.1%	0.0%	0.4%
24	Cancer	0.1%	0.0%	1.6%	0.4%	9.6%	12.4%	10.7%	7.6%	5.5%
25	Others	60.6%	30.4%	15.0%	95.7%	0.0%	0.0%	0.0%	0.0%	39.4%
	Total	100%	100%	100%	100%	100%	100%	100%	100%	100%

$\underline{Annexure-I}$

<u>Table No.1 District wise no. of Deaths reported as Jaundice (including Neonatal Jaundice):</u>

VHSNCs have reported 1900 deaths during 2017 for which the cause is recorded as jaundice.

S.N.	District	No.of Death reported	Death Reporting %
1	Balod	80	4%
2	Balodabazar	158	8%
3	Balrampur	64	3%
4	Bastar	63	3%
5	Bemetara	95	5%
6	Bijapur	55	3%
7	Bilaspur	86	5%
8	Dantewada	28	1%
9	Dhamtari	90	5%
10	Durg	73	4%
11	Gariyaband	65	3%
12	Janjgir	159	8%
13	Jashpur	64	3%
14	Kanker	68	4%
15	Kawardha	67	4%
16	Kondagaon	35	2%
17	Korba	39	2%
18	Koria	13	1%
19	Mahasamund	77	4%
20	Mungeli	66	3%
21	Narayanpur	11	1%
22	Raigarh	103	5%
23	Raipur	78	4%
24	Rajnandgaon	140	7%
25	Sukma	9	0%
26	Surajpur	59	3%
27	Surguja	55	3%
	TOTAL	1900	100%

<u>Table No.2 Age wise no. of Deaths reported as Jaundice (including Neonatal Jaundice):</u>

45% of these deaths are in 15-49 year age group. Deaths due to neonatal jaundice are also large in number.

S.N.	Age Category	No.of Death reported	Percentage
1	0-28 days	188	10%
2	1-11 month	64	3%
3	1-4 year	119	6%
4	5-14 year	181	10%
5	15-49year	851	45%
6	50-59year	197	10%
7	60-69year	137	7%
8	More than 70year	163	9%
	Total	1900	100%

<u>Table No.3 Gender wise no. of Deaths reported as Jaundice (including Neonatal Jaundice):</u>

59% of the deaths due to jaundice are of males.

Gender	No.of Death Reported	Percentage
Male	1115	59%
Female	785	41%
Total	1900	100%

<u>Table No.4 Month wise no. of Deaths reported as Jaundice (including Neonatal Jaundice):</u>

The number of deaths per month is slightly higher during July to November.

Month	No.of Death Reported	Percentage
January	105	6%
February	95	5%
March	107	6%
April	156	8%
May	164	9%
June	129	7%
July	186	10%
August	213	11%
September	207	11%
October	197	10%
November	209	11%
December	132	7%
Total	1900	100%

Table No.5 District wise no. of Deaths reported as Malnutrition and Low Birth Weight:

VHSNCs have reported 1084 deaths during 2017 for which the cause is recorded as malnutrition.

S.N.	District	No.of Death reported	Death Reporting %
1	Balod	26	2%
2	Balodabazar	61	6%
3	Balrampur	50	5%
4	Bastar	44	4%
5	Bemetara	46	4%
6	Bijapur	13	1%
7	Bilaspur	67	6%
8	Dantewada	15	1%
9	Dhamtari	38	4%
10	Durg	27	2%
11	Gariyaband	26	2%
12	Janjgir	49	5%
13	Jashpur	49	5%
14	Kanker	35	3%
15	Kawardha	45	4%
16	Kondagaon	33	3%
17	Korba	23	2%
18	Koria	15	1%
19	Mahasamund	89	8%
20	Mungeli	36	3%
21	Narayanpur	16	1%
22	Raigarh	73	7%
23	Raipur	57	5%
24	Rajnandgaon	85	8%
25	Sukma	14	1%
26	Surajpur	32	3%
27	Surguja	20	2%
	TOTAL	1084	100%

Table No.6 Age wise no. of Deaths reported as Malnutrition and Low Birth Weight:

The deaths due to low birth weights are concentrated amongst newborn as 66% of these deaths are in 0-28 days age group. Deaths due to malnutrition are high in the 1month-1 year age group.

S.N.	Age Category	No.of Death reported	Percentage
1	0-28 days	711	66%
2	1-11 month	141	13%
3	1-4 year	116	11%
4	5-14 year	21	2%
5	15-49year	25	2%
6	50-59year	3	0%
7	60-69year	10	1%
8	More than 70year	57	5%
	Total	1084	100%

<u>Table No.7 Gender wise no. of Deaths reported as Malnutrition and Low Birth Weight:</u>

53% of the deaths due to low birth weight and malnutrition are male.

Gender	No.of Death Reported	Percentage
Male	578	53%
Female	506	47%
Total	1084	100%

Table No.8 Month wise no. of Deaths reported as Malnutrition and Low Birth Weight:

The number of deaths per month is slightly higher in January.

Month	No.of Death Reported	Percentage
January	172	16%
February	86	8%
March	82	8%
April	71	7%
May	111	10%
June	85	8%
July	67	6%
August	89	8%
September	55	5%
October	78	7%
November	87	8%
December	101	9%
Total	1084	100%

Table No.9 District wise no. of Deaths reported as Murder:

VHSNCs have reported 449 deaths during 2017 for which the cause is recorded as murder.

S.N.	District	No.of Death reported	Death Reporting %
1	Balod	10	2%
2	Balodabazar	9	2%
3	Balrampur	22	5%
4	Bastar	17	4%
5	Bemetara	26	6%
6	Bijapur	24	5%
7	Bilaspur	24	5%
8	Dantewada	10	2%
9	Dhamtari	13	3%
10	Durg	8	2%
11	Gariyaband	7	2%
12	Janjgir	20	4%
13	Jashpur	29	6%
14	Kanker	10	2%
15	Kawardha	16	4%
16	Kondagaon	12	3%
17	Korba	17	4%
18	Koria	6	1%
19	Mahasamund	6	1%
20	Mungeli	8	2%
21	Narayanpur	9	2%
22	Raigarh	26	6%
23	Raipur	28	6%
24	Rajnandgaon	20	4%
25	Sukma	13	3%
26	Surajpur	23	5%
27	Surguja	36	8%
	TOTAL	449	100%

Table No.10 Age wise no. of Deaths reported as Murder:

72% of these deaths are in 15-49 year age group. Deaths due to murder are also high in the 50-59 year age group.

S.N.	Age Category	No.of Death reported	Percentage
1	15-49year	323	72%
2	50-59year	50	11%
3	60-69year	44	10%
4	More than 70year	32	7%
	Total	449	100%

Table No.11 Gender wise no. of Deaths reported as Murder:

63% of the deaths due to murder are of male persons.

Gender	No.of Death Reported	Percentage
Male	285	63%
Female	164	37%
Total	449	100%

Table No.12 Month wise no. of Deaths reported as Murder:

The number of deaths per month is slightly higher during May and July.

Month	No.of Death Reported	Percentage
January	26	6%
February	24	5%
March	36	8%
April	36	8%
May	69	15%
June	38	8%
July	55	12%
August	38	8%
September	42	9%
October	35	8%
November	24	5%
December	26	6%
Total	449	100%

3.6 Deaths due to HIV-AIDS:

VHSNCs have reported 113 deaths during 2017 for which the cause is recorded as HIV-AIDS $\,$

S.N.	District	No.of Death reported	Death Reporting
1	Balod	3	1%
2	Balodabazar	10	2%
3	Balrampur	2	0%
4	Bastar	10	2%
5	Bemetara	7	1%
6	Bijapur	0	0%
7	Bilaspur	11	2%
8	Dantewada	1	0%
9	Dhamtari	1	0%
10	Durg	4	1%
11	Gariyaband	1	0%
12	Janjgir	4	1%
13	Jashpur	0	0%
14	Kanker	2	0%
15	Kawardha	9	2%
16	Kondagaon	0	0%
17	Korba	0	0%
18	Koria	0	0%
19	Mahasamund	9	2%
20	Mungeli	0	0%
21	Narayanpur	0	0%
22	Raigarh	3	1%
23	Raipur	19	4%
24	Rajnandgaon	13	3%
25	Sukma	0	0%
26	Surajpur	2	0%
27	Surguja	2	0%
	TOTAL	113	22%

17% of these deaths are in 15-49 year age group.

S.N.	Age Category	No.of Death reported	Percentage
1	0-28 days	0	0.0%
2	1-11 month	0	0.0%
3	1-4 year	0	0%
4	5-14 year	4	1%
5	15-49year	86	17%
6	50-59year	11	2.2%
7	60-69year	9	1.8%
8	More than 70year	3	0.6%
	Total	113	22%

65% of the deaths are of male persons.

Category	No.of Death Reported	Percentage
Male	73	65%
Female	40	35%
Total	113	100%

The number of deaths per month does not have a seasonal pattern.

Month	No.of Death Reported	Percentage
January	5	1%
February	8	2%
March	6	1%
April	6	1%
May	17	3%
June	7	1%
July	8	2%
August	8	2%
September	18	4%
October	16	3%
November	7	1%
December	7	1%
Total	113	22%

3.7 Deaths due to Genito-Urinary Disease:

VHSNCs have reported 151 deaths during 2017 for which the cause is recorded as Genitourinary disease

S.N.	District	No.of Death reported	Death Reporting	
1	Balod	6	1%	
2	Balodabazar	0	0%	
3	Balrampur	16	3%	
4	Bastar	10	2%	
5	Bemetara	4	1%	
6	Bijapur	4	1%	
7	Bilaspur	13	3%	
8	Dantewada	2	0%	
9	Dhamtari	2	0%	
10	Durg	4	1%	
11	Gariyaband	5	1%	
12	Janjgir	4	1%	
13	Jashpur	6	1%	
14	Kanker	10	2%	
15	Kawardha	5	1%	
16	Kondagaon	5	1%	
17	Korba	9	2%	
18	Koria	1	0%	
19	Mahasamund	1	0%	
20	Mungeli	4	1%	
21	Narayanpur	1	0%	
22	Raigarh	4	1%	
23	Raipur	4	1%	
24	Rajnandgaon	20	4%	
25	Sukma	0	0%	
26	Surajpur	5	1%	
27	Surguja	6	1%	
	TOTAL	151	30%	

8% of these deaths are in 15-49 year age group

S.N.	Age Category	No.of Death reported	Percentage
1	0-28 days	8	1.6%
2	1-11 month	4	0.8%
3	1-4 year	2	0%
4	5-14 year	3	1%
5	15-49year	41	8%
6	50-59year	14	2.8%
7	60-69year	29	5.7%
8	More than 70year	50	9.9%
	Total	151	30%

66% of the deaths are of male persons.

Category	No.of Death Reported	Percentage	
Male	100	66%	
Female	51	34%	
Total	151	100%	

The number of deaths per month does not have a seasonal pattern.

Month	No.of Death Reported	Percentage
January	14	3%
February	23	5%
March	4	1%
April	2	0%
May	9	2%
June	8	2%
July	18	4%
August	16	3%
September	10	2%
October	21	4%
November	9	2%
December	17	3%
Total	151	30%

Annexure – II

Table No.13 District wise no. of Deaths in 5 to 14 years age group in 2017

The report covers 2554 deaths in the 5-14 year age group in rural areas of the state.

S.N.	District	No.of Death reported	%
1	Balod	62	2%
2	Balodabazar	202	8%
3	Balrampur	131	5%
4	Bastar	86	3%
5	Bemetara	78	3%
6	Bijapur	82	3%
7	Bilaspur	128	5%
8	Dantewada	54	2%
9	Dhamtari	76	3%
10	Durg	74	3%
11	Gariyaband	66	3%
12	Janjgir	176	7%
13	Jashpur	108	4%
14	Kanker	80	3%
15	Kawardha	115	5%
16	Kondagaon	49	2%
17	Korba	76	3%
18	Koria	54	2%
19	Mahasamund	91	4%
20	Mungeli	93	4%
21	Narayanpur	23	1%
22	Raigarh	130	5%
23	Raipur	97	4%
24	Rajnandgaon	166	6%
25	Sarguja	105	4%
26	Sukma	27	1%
27	Surajpur	123	5%
	Total	2554	100%

Table No.14 Month wise no. of Deaths in 5 to 14 years age group in 2017

The 5-14 year age group deaths recorded monthly are higher during July to September.

Month	No.of Death Reported	%	
January	140	5%	
February	130	5%	
March	131	5%	
April	214	8%	
May	227	9%	
June	255	10%	
July	307	12%	
August	273	11%	
September	282	11%	
October	225	9%	
November	225	9%	
December	144	6%	
Total	2554	100%	

Table No.15 Gender wise no. of Deaths in 5 to 14 years age group in 2017

54% of the 5-14 year age group deaths recorded were of male children.

Gender	No.of Death Reported	%
Male	1379	54%
Female	1175	46%
Total	2554	100%

Table No.16 Cause wise no. of Deaths in 5 to 14 years age group in 2017

Still, for 1971, 5-14 year age group deaths clear information regarding the cause of death has been recorded by VHSNCs. For these deaths, Accident and Fever/Malaria was the most common cause, Jaundice were also causes. Deaths with Fever/Malaria are decreases and Accident is increases from last 4 years.

Reported Causes	No.of Deaths reported in 2017	% in 2017	% in 2016	% in 2015	% in 2014	% in 2013
Accident	530	21%	18%	15%	12%	14%
Convulsion	90	4%	3%	2%	2%	1%
Fever/Malaria	259	10%	12%	14%	16%	17%
Jaundice	181	7%	7%	6%	7%	6%
Malnutrition	21	1%	1%	1%	1%	1%
Pneumonia	45	2%	2%	2%	2%	1%
Snake bite	119	5%	4%	5%	5%	4%
Diarrhea	91	4%	4%	3%	4%	3%
T.B.	19	1%	1%	1%	1%	1%
Rabies	16	1%	1%	1%	1%	2%
Heart Disease/stroke (including CHD/Anomalies)	203	8%	3%			
Digestive Disease	179	7%	5%			
Genito-urinary disease	3	0%	0%			
Diabetes	25	1%	1%			
Cancer	74	3%	3%			
Sickle Cell Anemia	112	4%	2%			
HIV/AIDS	4	0%	0%			
Other	583	23%	33%	49%	49%	50%
Total	2554	100%	100%	100%	100%	100%

<u>Table No.17 District wise no. of Deaths in 15 to 49 years age group in 2017</u>

The report covers 22258 deaths in the 15-49 year age group in rural areas of the state.

S.N.	District	No.of Death reported	%
1	Balod	856	4%
2	Balodabazar	1346	6%
3	Balrampur	642	3%
4	Bastar	682	3%
5	Bemetara	728	3%
6	Bijapur	458	2%
7	Bilaspur	1211	5%
8	Dantewada	390	2%
9	Dhamtari	1034	5%
10	Durg	921	4%
11	Gariyaband	546	2%
12	Janjgir	1695	8%
13	Jashpur	915	4%
14	Kanker	917	4%
15	Kawardha	785	4%
16	Kondagaon	445	2%
17	Korba	625	3%
18	Koria	311	1%
19	Mahasamund	1140	5%
20	Mungeli	638	3%
21	Narayanpur	168	1%
22	Raigarh	1235	6%
23	Raipur	1320	6%
24	Rajnandgaon	1644	7%
25	Sarguja	290	1%
26	Sukma	673	3%
27	Surajpur	642	3%
	TOTAL	22258	100%

Table No.18 Month wise no. of Deaths in 15 to 49 years age group in 2017

The 15-49 year age group deaths recorded monthly are slightly higher during May to September.

Month	No.of Death Reported	%
January	1486	7%
February	1362	6%
March	1560	7%
April	1718	8%
May	2278	10%
June	1837	8%
July	2276	10%
August	2203	10%
September	2159	10%
October	2042	9%
November	1806	8%
December	1531	7%
Total	22258	100%

Table No.19 Gender wise no. of Deaths in 15 to 49 years age group in 2017

63% of the 15-49 year age group deaths recorded were of male persons.

Gender	No.of Death Reported	%
Male	13945	63%
Female	8313	37%
Total	22258	100%

Table No.20 Cause wise no. of Deaths in 15 to 49 years age group in 2017

Still, for 16961 deaths in this age group, clear information regarding the cause of death has been recorded by VHSNCs. For these deaths, Accidents, Suicides, Heart disease and Cancer

were the common causes of deaths. TB, Jaundice and Fever/Malaria were causes. Deaths with Fever/Malaria is slightly decreases from last 4 years.

Reported Causes	No.of Deaths reported in 2017	% in 2017	% in 2016	% in 2015	% in 2014	% in 2013
Accident	3458	16%	13%	14%	13%	12%
Convulsion	233	1%	1%	1%	1%	1%
Fever/Malaria	502	2%	3%	5%	6%	6%
Jaundice	851	4%	4%	4%	4%	3%
Malnutrition	25	0%	0%	0%	0%	0%
Murder	323	1%	1%	1%	1%	1%
Pneumonia	59	0%	0%	0%	0%	0%
Snake bite	298	1%	2%	2%	2%	2%
Diarrhea	218	1%	1%	1%	1%	2%
T.B.	797	4%	4%	5%	4%	4%
Suicide	2401	11%	10%	13%	12%	11%
Rabies	19	0%	0%	0%	0%	0%
Maternal cause	272	1%	1%	2%	2%	2%
Heart Disease/stroke	3565	16%	8%			
Cancer	1513	7%	6%			
Digestive Disease	1441	6%	4%			
Diabetes	594	3%	2%			
Sickle Cell Anemia	265	1%	1%			
HIV/AIDS	86	0%	0%			
Genito-urinary disease	41	0%	0%			
Other	5297	24%	37%	52%	54%	56%
Total	22258	100%	100%	100%	100%	100%

<u>Table No.21 District wise no. of Deaths in 50 to 59 years age group in 2017</u>

The report covers 10728 deaths in the 50-59 year age group in rural areas of the state.

S.N.	District	No.of Death reported	%
1	Balod	531	5%
2	Balodabazar	777	7%
3	Balrampur	260	2%
4	Bastar	302	3%
5	Bemetara	385	4%
6	Bijapur	151	1%
7	Bilaspur	544	5%
8	Dantewada	105	1%
9	Dhamtari	578	5%
10	Durg	466	4%
11	Gariyaband	238	2%
12	Janjgir	919	9%
13	Jashpur	476	4%
14	Kanker	394	4%
15	Kawardha	331	3%
16	Kondagaon	163	2%
17	Korba	287	3%
18	Koria	136	1%
19	Mahasamund	525	5%
20	Mungeli	253	2%
21	Narayanpur	75	1%
22	Raigarh	597	6%
23	Raipur	582	5%
24	Rajnandgaon	852	8%
25	Sarguja	360	3%
26	Sukma	79	1%
27	Surajpur	362	3%
	Total	10728	100%

Table No.22 Month wise no. of Deaths in 50 to 59 years age group in 2017

The 50-59 year age group deaths recorded monthly are slightly higher in July.

Month	No.of Death Reported	%
January	876	8%
February	684	6%
March	726	7%
April	838	8%
May	1001	9%
June	893	8%
July	1065	10%
August	1012	9%
September	968	9%
October	869	8%
November	919	9%
December	876	8%
Total	10728	100%

Table No.23 Gender wise no. of Deaths in 50 to 59 years age group in 2017

64% of the 50-59 year age group deaths recorded were of male persons.

Gender	No.of Death Reported	%
Male	6852	64%
Female	3876	36%
Total	10728	100%

Table No.24 Cause wise no. of Deaths in 50 to 59 years age group in 2017

Still, for 7578 deaths in this age group, clear information regarding the cause of death has been recorded by VHSNCs. For these deaths, Heart disease, Cancer and Diabetes are most common cause of death. Accidents, Suicides and TB were causes. Deaths with Fever/Malaria are decreases from last 4 years.

Reported Causes	No.of Deaths reported in 2017	% in 2017	% in 2016	% in 2015	% in 2014	% in 2013
Accident	681	6%	6%	6%	5%	5%
Convulsion	41	0%	0%	0%	0%	0%
Fever/Malaria	139	1%	2%	4%	5%	4%
Jaundice	197	2%	2%	2%	2%	1%
Malnutrition	3	0%	0%	0%	0%	0%
Murder	50	0%	1%	1%	1%	0%
Pneumonia	12	0%	0%	0%	0%	0%
Snake bite	64	1%	1%	1%	1%	1%
Diarrhea	78	1%	1%	1%	1%	1%
T.B.	376	4%	4%	5%	4%	5%
Suicide	338	3%	3%	4%	3%	4%
Rabies	18	0%	0%	0%	0%	0%
Heart Disease/stroke	3313	31%	12%			
Cancer	958	9%	8%			
Diabetes	555	5%	6%			
Digestive Disease	696	6%	4%			
Sickle Cell Anemia	34	0%	0%			
Genito-urinary disease	14	0%	0%			
HIV/AIDS	11	0%	0%			
Other	3150	29%	50%	76%	78%	79%
Total	10728	100%	100%	100%	100%	100%

<u>Table No.25 District wise no. of Deaths in 60 to 69 years age group in 2017</u>

The report covers 14099 deaths in the 60-69 year age group in rural areas of the state.

S.N.	District	No.of Death reported	%
1	Balod	745	5%
2	Balodabazar	895	6%
3	Balrampur	334	2%
4	Bastar	393	3%
5	Bemetara	573	4%
6	Bijapur	180	1%
7	Bilaspur	785	6%
8	Dantewada	73	1%
9	Dhamtari	714	5%
10	Durg	681	5%
11	Gariyaband	278	2%
12	Janjgir	1288	9%
13	Jashpur	559	4%
14	Kanker	512	4%
15	Kawardha	542	4%
16	Kondagaon	194	1%
17	Korba	397	3%
18	Koria	157	1%
19	Mahasamund	636	5%
20	Mungeli	388	3%
21	Narayanpur	65	0%
22	Raigarh	1003	7%
23	Raipur	675	5%
24	Rajnandgaon	1038	7%
25	Sarguja	450	3%
26	Sukma	101	1%
27	Surajpur	444	3%
	TOTAL	14099	100%

Table No.26 Month wise no. of Deaths in 60 to 69 years age group in 2017

The 60-69 year age group deaths recorded monthly are slightly higher during May and July.

Month	No.of Death Reported	%
January	1139	8%
February	913	6%
March	987	7%
April	1096	8%
May	1431	10%
June	1159	8%
July	1394	10%
August	1234	9%
September	1178	8%
October	1134	8%
November	1246	9%
December	1189	8%
Total	14099	100%

Table No.27 Gender wise no. of Deaths in 60 to 69 years age group in 2017

58% of the 60-69 year age group deaths recorded were of male persons.

Gender	No.of Death Reported	%
Male	8174	58%
Female	5925	42%
Total	14099	100%

Table No.28 Cause wise no. of Deaths in 60 to 69 years age group in 2017

Still, for 9085 deaths in this age group, clear information regarding the cause of death has been recorded by VHSNCs. For these deaths, Heart disease, Cancer and Diabetes are most common cause of death. Accident, Fever/Malaria and TB were also causes. Deaths with Fever/Malaria are decreases and Accident slightly increases from last 4 years.

Reported Causes	No.of Deaths reported in 2017	% in 2017	% in 2016	% in 2015	% in 2014	% in 2013
Accident	514	4%	4%	3%	2%	2%
Convulsion	55	0%	0%	0%	0%	0%
Fever/Malaria	190	1%	3%	4%	5%	4%
Jaundice	137	1%	1%	1%	1%	1%
Malnutrition	10	0%	0%	0%	0%	0%
Murder	44	0%	0%	0%	0%	0%
Pneumonia	4	0%	0%	0%	0%	0%
Snake bite	47	0%	0%	0%	0%	0%
Diarrhea	91	1%	1%	1%	1%	1%
T.B.	356	3%	3%	3%	3%	2%
Suicide	195	1%	1%	2%	1%	1%
Rabies	9	0%	0%	0%	0%	0%
Heart Disease/stroke	5001	35%	11%			
Cancer	879	6%	6%			
Diabetes	777	6%	5%			
Digestive Disease	713	5%	4%			
Sickle Cell Anemia	25	0%	0%			
HIV/AIDS	9	0%	0%			
Genito-urinary disease	29	0%	0%			
Other	5014	36%	61%	84%	86%	89%
Total	14099	100%	100%	100%	100%	100%

Table No.29 District wise no. of Deaths in above 70 years age group in 2017

The report covers 32316 deaths in the more than 70 year age group in rural areas of the state.

S.N.	District	No.of Death reported	%
1	Balod	1453	4%
2	Balodabazar	1775	5%
3	Balrampur	834	3%
4	Bastar	764	2%
5	Bemetara	1259	4%
6	Bijapur	180	1%
7	Bilaspur	1868	6%
8	Dantewada	76	0%
9	Dhamtari	1620	5%
10	Durg	1909	6%
11	Gariyaband	438	1%
12	Janjgir	3598	11%
13	Jashpur	1263	4%
14	Kanker	1026	3%
15	Kawardha	1358	4%
16	Kondagaon	320	1%
17	Korba	636	2%
18	Koria	347	1%
19	Mahasamund	1530	5%
20	Mungeli	1135	4%
21	Narayanpur	120	0%
22	Raigarh	2582	8%
23	Raipur	1420	4%
24	Rajnandgaon	2271	7%
25	Sarguja	1162	4%
26	Sukma	120	0%
27	Surajpur	1251	4%
	TOTAL	32316	100%

Table No.30 Month wise no. of Deaths in above 70 years age group in 2017

Deaths recorded monthly for this age group are slightly higher in May.

Month	No.of Death reported	%
January	2857	9%
February	2184	7%
March	2225	7%
April	2426	8%
May	3406	11%
June	2271	7%
July	2832	9%
August	2845	9%
September	2708	8%
October	2376	7%
November	2985	9%
December	3202	10%
Total	32316	100%

Table No.31 Gender wise no. of Deaths in above 70 years age group in 2017

57% of the More than 70 year age group deaths recorded were of male persons.

Gender	No.of Death reported	%
Male	18343	57%
Female	13973	43%
Total	32316	100%

Table No.32 Cause wise no. of Deaths in above 70 years age group in 2017

Still, for 15655 deaths in this age group, clear information regarding the cause of death has been recorded by VHSNCs. For these deaths, Heart disease, Diabetes and Fever/Malaria are most common cause of death. Accidents and Cancer were also causes. Deaths with Fever/Malaria is slightly decreases and Accident is slightly increases from last 4 years.

Reported Causes	No.of Deaths reported in 2017	% in 2017	% in 2016	% in 2015	% in 2014	% in 2013
Accident	772	2%	2%	1%	1%	1%
Convulsion	57	0%	0%	0%	0%	0%
Fever/Malaria	425	1%	3%	3%	3%	2%
Jaundice	163	1%	0%	0%	0%	0%
Malnutrition	57	0%	0%	0%	0%	0%
Murder	32	0%	0%	0%	0%	0%
Pneumonia	19	0%	0%	0%	0%	0%
Snake bite	35	0%	0%	0%	0%	0%
Diarrhea	180	1%	1%	1%	1%	0%
T.B.	364	1%	1%	1%	1%	1%
Suicide	171	1%	0%	1%	1%	0%
Rabies	10	0%	0%	0%	0%	0%
Heart Disease/stroke	10462	32%	6%			
Diabetes	1067	3%	3%			
Digestive Disease	919	3%	2%			
Cancer	843	3%	2%			
Genito-urinary disease	50	0%	0%			
Sickle Cell Anemia	26	0%	0%			
HIV/AIDS	3	0%	0%			
Other	16661	52%	78%	92%	93%	95%
Total	32316	100%	100%	100%	100%	100%

Table No.33 District wise no. of reported deaths in all age group in 2017

S.N.	District	No.of Death Reported in 2013	No.of Death Reported in 2014	No.of Death Reported in 2015	No.of Death Reported in 2016	No.of Death Reported in 2017	
1	BALOD	2623	3801	4218	4482	4347	
2	BALODABAZAR	4970	5626	5663	6878	6046	
3	BALRAMPUR	2293	2414	3372	3969	2403	
4	BASTAR	2264	2155	2938	2608	2394	
5	BEMETARA	1853	2587	3201	3820	3389	
6	BIJAPUR	571	835	1094	1243	1203	
7	BILASPUR	2631	3095	4797	6085	4796	
8	DANTEWADA	488	2998	751	1122	1114	
9	DHAMTARI	3120	3228	4000	4792	4248	
10	DURG	2076	2761	3567	3965	3738	
11	GARIYABAND	1736	1968	2627	3199	2378	
12	JANJGIR	3490	4959	6799	7977	7288	
13	JASHPUR	2792	3480	4221	4351	4122	
14	KANKER	2495	2610	3233	3513	3086	
15	KAWARDHA	2109	2507	2634	3552	3210	
16	KONDAGAON	1694	1694	2133	2019	1485	
17	KORBA	1835	1569	2655	3228	2324	
18	KORIA	867	876	1315	1550	1160	
19	MAHASAMUND	2275	3396	4661	6488	5439	
20	MUNGELI	809	1773	2552	2481	2564	
21	NARAYANPUR	277	304	409	420	448	
22	RAIGARH	3219	4702	6348	7465	5494	
23	RAIPUR	2337	3214	4244	4879	4788	
24	RAJNANDGAON	4142	6116	6545	8838	6775	
25	SUKMA	475	629	846	949	868	
26	SURAJPUR	2497	2743	3419	3784	2926	
27	SURGUJA	2618	2239	2905	3537	2894	
Total		58556	74279	91147	107194	90927	

Table No.34 Month wise no. of reported deaths in all age group in 2017

The no. of deaths reported monthly is higher in May.

Month	No.of Death Reported	Percentage	
January	7719	8%	
February	5939	7%	
March	6371	7%	
April	6892	8%	
May	8851	10%	
June	6957	8%	
July	8216	9%	
August	8490	9%	
September	8056	9%	
October	7720	8%	
November	7986	9%	
December	7730	9%	
Total	90927	100%	

Table No.35 Gender wise no. of reported deaths in all age group in 2017

59% of the total deaths reported are of male persons.

Gender	No.of Death Reported	Percentage	
Male	35738	59%	
Female	24484	41%	
Total	60222	100%	

Table No.36 Year & cause wise no. of reported deaths in all age group from 2012 to 2017

Other than the deaths attributed to old age, unknown or miscellaneous causes, Heart Disease, Accident and Cancer is the biggest killer in the state. It is followed by Fever/Malaria, Suicide, Diabetes and Neonatal deaths in terms of common causes of rural deaths recorded by VHSNCs.

S.N.	Reported Causes	No.of Deaths Reported in 2012	No.of Deaths Reported in 2013	No.of Deaths Reported in 2014	No.of Deaths Reported in 2015	No.of Deaths Reported in 2016	No.of Deaths Reported in 2017
1	Heart Disease/Stroke (including Congenital Heart Disease/Anomalies)					8233	22896
2	Accident	1854	2935	3722	5072	6521	6306
3	Cancer					4436	4313
5	Digestive Diseases					3585	4210
7	Suicide	1476	2063	2728	3363	3472	3105
8	Diabetes					3238	3032
9	T.B.	934	1376	1795	2183	2383	1935
6	Fever/Malaria	2467	2872	3962	4071	3531	1927
10	Jaundice	619	850	1429	1669	2079	1712
4	Neonatal causes	1863	2619	3262	3617	3747	1646
11	Pneumonia	582	754	1199	1384	1873	992
12	Diarrhea	607	752	949	1197	1534	905
14	Convulsions	238	301	485	678	997	822
13	Low Birth Weight	235	474	715	998	1006	711
15	Snake bite	342	451	585	677	737	611
17	Sickle Cell Anemia					457	506
18	Murder	229	272	336	339	445	449
16	Malnutrition	109	216	331	442	672	373
19	Maternal causes	230	244	326	402	384	272
20	Neonatal Jaundice	109	147	213	178	263	188
23	Genito-urinary Diseases					76	151
22	HIV/AIDS					107	113
21	Rabies	72	106	118	142	119	76
24	Others	27202	42124	52124	64735	57299	33676
	Total		58556	74279	91147	107194	90927

S.N.	Reported Causes	% of Deaths Reported in 2012	% of Deaths Reported in 2013	% of Deaths Reported in 2014	% of Deaths Reported in 2015	% of Deaths Reported in 2016	% of Deaths Reported in 2017
1	Heart Disease/Stroke (including Congenital Heart Disease/Anomalies)					7.7%	25.2%
2	Accident	4.7%	5.0%	5.0%	5.6%	6.1%	6.9%
3	Cancer					4.1%	4.7%
5	Digestive Diseases					3.3%	4.6%
7	Suicide	3.8%	3.5%	3.7%	3.7%	3.2%	3.4%
8	Diabetes					3.0%	3.3%
9	T.B.	2.4%	2.3%	2.4%	2.4%	2.2%	2.1%
6	Fever/Malaria	6.3%	4.9%	5.3%	4.5%	3.3%	2.1%
10	Jaundice	1.6%	1.5%	1.9%	1.8%	1.9%	1.9%
4	Neonatal causes	4.8%	4.5%	4.4%	4.0%	3.5%	1.8%
11	Pneumonia	1.5%	1.3%	1.6%	1.5%	1.7%	1.1%
12	Diarrhea	1.5%	1.3%	1.3%	1.3%	1.4%	1.0%
14	Convulsions	0.6%	0.5%	0.7%	0.7%	0.9%	0.9%
13	Low Birth Weight	0.6%	0.8%	1.0%	1.1%	0.9%	0.8%
15	Snake bite	0.9%	0.8%	0.8%	0.7%	0.7%	0.7%
17	Sickle Cell Anemia					0.4%	0.6%
18	Murder	0.6%	0.5%	0.5%	0.4%	0.4%	0.5%
16	Malnutrition	0.3%	0.4%	0.4%	0.5%	0.6%	0.4%
19	Maternal causes	0.6%	0.4%	0.4%	0.4%	0.4%	0.3%
20	Neonatal Jaundice	0.3%	0.3%	0.3%	0.2%	0.2%	0.2%
23	Genito-urinary Diseases					0.1%	0.2%
22	HIV/AIDS					0.1%	0.1%
21	Rabies	0.2%	0.2%	0.2%	0.2%	0.1%	0.1%
24	Others	69.4%	71.9%	70.2%	71.0%	53.5%	37.0%
Total		100%	100%	100%	100%	100%	100%