

4. Basis of Diagnosis and Follow up

I. Imaging

Stroke diagnosis is clinical diagnosis based on the WHO definition. Imaging studies like CT/MRI helps in identifying the site of lesion, first-ever or recurrent, acute or chronic, and type of stroke. Imaging provides the confirmatory diagnosis of stroke, to rule out other differential diagnoses that mimic stroke, extent of brain damage and any further complications.

Table 4.1. Number (n) and proportion (%) of registered first-ever stroke cases by imaging done

Imaging done	Cuttack		Cachar		Tirunelveli		Kota		Varanasi	
	n	%	n	%	n	%	n	%	n	%
None	50	15.5	680	27.3	492	13.2	10	0.4	177	8.7
CT	2642	81.9	1810	72.6	2303	61.7	1326	56.5	1710	84.5
MRI	45	1.4	2	0.1	823	22.1	851	36.3	123	6.1
Both	39	1.2	1	0.0	112	3.0	160	6.8	14	0.7

II. Basis of Diagnosis

Basis of diagnosis included the modalities used for arriving at diagnosis of stroke. These included clinical diagnosis, imaging like CT or MRI, other interventions like lumbar puncture or carotid ultrasound. Death certificates from the local registrar offices of birth and death were collected to include cases with 'stroke' as a cause of death. When there were no matching records of clinical or imaging details, the basis of diagnosis was recorded as 'Death Certificate Only (DCO)' cases.

Table 4.2. Number (n) and proportion (%) of first-ever stroke cases by basis of diagnosis

Basis of diagnosis	Cuttack		Cachar		Tirunelveli		Kota		Varanasi	
	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females
	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)
Clinical only	350 (18.4)	221 (16.7)	44 (2.7)	22 (2.5)	221 (10.0)	172 (11.4)	11 (0.8)	8 (0.9)	77 (6.1)	45 (5.9)
Clinical and Imaging	1511 (79.4)	1058 (80.0)	1129 (70.2)	653 (73.8)	1891 (85.4)	1247 (82.3)	1452 (99.2)	876 (99.1)	1146 (91.2)	701 (91.4)
DCO*	43 (2.3)	43 (3.3)	435 (27.1)	210 (23.7)	103 (4.7)	96 (6.3)	0 (0.0)	0 (0.0)	34 (2.7)	21 (2.7)

*DCO is Death Certificate Only cases

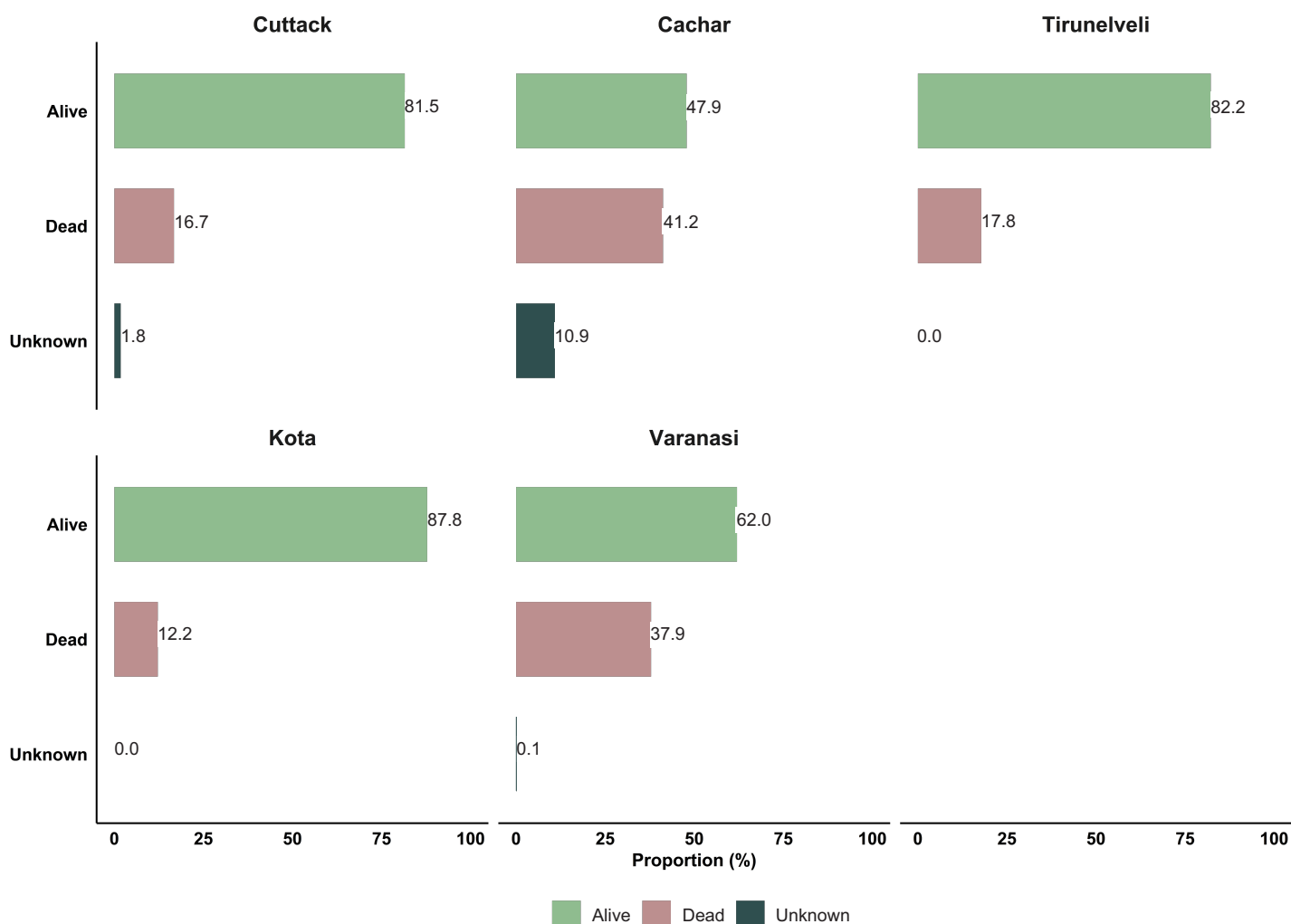
III. Follow up

Follow up at 28 days after onset of stroke was conducted to ascertain vital status of registered stroke cases. Follow-up was done by one or more methods- telephone, hospital visit, home visit.

Table 4.3. Number (n) and proportion (%) of first-ever stroke cases by method of follow-up

Method of follow-up	Cuttack		Cachar		Tirunelveli		Kota		Varanasi	
	n	%	n	%	n	%	n	%	n	%
Hospital visit	695	18.9	26	1.5	479	13.6	219	9.3	217	14.9
Home visit	741	20.1	7	0.4	7	0.2	24	1.0	3	0.2
Through telephone	2183	59.2	1609	93.0	3016	85.8	2103	89.6	1239	84.8
By post and others	68	1.8	88	5.1	12	0.3	2	0.1	2	0.1
No Follow-up	135	3.7	74	4.3	199	5.7	1	0.0	438	30.0

Figure 4.1 Proportion (%) of vital status on day 28 after onset of stroke among first-ever stroke cases



Key Findings

- The proportion of cases with imaging were high in all the PBSRs. Kota PBSR reported a high proportion of MRI (43.1%) done as compared to other PBSRs
- Majority of cases were followed up at 28 days through telephone (range 59.2% in Cuttack PBSR to 93.0% in Cachar PBSR), hospital (range 1.5% in Cachar PBSR to 18.9% in Cuttack PBSR) and home visit (range 0.2% in Tirunelveli PBSR and Varanasi PBSR to 20.1% in Cuttack PBSR)
- Proportion of registered stroke cases who were alive at 28 days after onset of stroke were in the range 47.9% in Cachar PBSR to 87.8% in Kota PBSR
- The proportion of dead cases were higher in Cachar PBSR (41.2%) due to high number of DCO cases