

PANDEMIC PREPAREDNESS PLAN PALLURUTHY BLOCK PANCHAYAT



MESSAGE FROM PRESIDENT/CHAIR LSGI



The Palluruthy Block Panchayat, under the guidance of the Local Self Governance Department (LSGD) of Kerala, is committed to strengthening our pandemic preparedness efforts at the local level. Public health and the well-being of our community are our top priorities, and now more than ever, it is important that we work together to face any health challenges that may arise.

Community participation plays a crucial role in preventing the spread of diseases. By following safety protocols, staying informed, and supporting health initiatives, we can help protect our families and neighbors. It is important that every individual, along with health workers, local leaders, and educational institutions, adhere to the guidelines provided by the LSGD.

The Kumbalanghy Panchayat is dedicated to collaborating with local health officials and authorities to ensure we are ready to respond to future health threats. We call on all stakeholders to actively engage in this effort, as our success depends on everyone doing their part. Together, we can build a resilient and healthy community, ready to face any challenges ahead. Let us continue to work in unity and strength to protect our community's health.

SRI. AFSAL NAMBYARATH

President, PALLURUTHY BLOCK PANCHAYATH

MESSAGE FROM HEALTH & EDUCATION STANDING COMMITTEE CHAIR



പകർച്ചവ്യാധിയും പ്രകൃതി ദുരന്തങ്ങളും നമ്മുടെ സമൂഹത്തെ തകർത്തെറിഞ്ഞ ഈ കാലഘട്ടത്തിൽ, അടിയന്തര സാഹചര്യങ്ങളിൽ ആക്ഷൻ എടുക്കാനുള്ള തയ്യാറെടുപ്പിന്റെ പ്രാധാന്യം നമ്മെ പഠിപ്പിച്ചിട്ടുണ്ട്. ഈ പുസ്തകം, പ്രതിസന്ധികളെ നേരിടാനും, ആരോഗ്യ സംരക്ഷണം ഉറപ്പാക്കാനും, സമൂഹത്തെ സംരക്ഷിക്കാനുമുള്ള ഒരു പ്രധാന ഉപകരണമാണ്.

നമ്മുടെ ആരോഗ്യ സംവിധാനം ശക്തിപ്പെടുത്താനും, ദുരന്തനിവാരണ പ്രവർത്തനങ്ങൾ മെച്ചപ്പെടുത്താനും, പൊതുജനങ്ങളെ അവബോധം വളർത്താനും ഈ പുസ്തകം സഹായിക്കും എന്ന് ഞാൻ വിശ്വസിക്കുന്നു. എല്ലാ ആരോഗ്യപ്രവർത്തകർക്കും അധികാരികൾക്കും, പൊതുജനങ്ങൾക്കും ഈ പുസ്തകം ഒരു വിലപ്പെട്ട വിഭവമായിരിക്കും. ആരോഗ്യവും സുരക്ഷിതത്വവും ഉറപ്പാക്കാൻ നമുക്ക് ഒരുമിച്ച് പ്രവർത്തിക്കാം.

ഹൃദയപൂർവ്വം

SHEELA XAVIER

HEALTH AND EDUCATION STANDING COMMITTEE CHAIR PERSON

MESSAGE BY MEDICAL OFFICER



നമ്മുടെ ആരോഗ്യ സംവിധാനം കാലത്തിനനുസരിച്ച് ഏറെ മുൻപിലാണ്. എണ്ണമറ്റ രോഗാണുക്കൾക്ക് വിഹരിക്കാൻ പറ്റിയ ഒരു ചുറ്റുപാടാണ് എറണാകുളത്തെ കുമ്പളൂനി പരിസ്ഥിതി. നദികളും വെള്ളക്കെട്ടുകളും പാടങ്ങളും ഒക്കെയായി രോഗവ്യാപനം സാധ്യമാകുന്ന ഒരു കാലാവസ്ഥയാണ് ഇവിടെയുള്ളത്. ഇതൊക്കെയാണ് എറണാകുളത്തെ കുമ്പളൂനി മറ്റ് ജില്ലകളിൽ നിന്നും വ്യത്യസ്തമാക്കുന്നത്.

2018-ലെ പ്രളയം, 2020-ലെ കൊറോണ തുടങ്ങിയവയെല്ലാം നമുക്ക് അതിജീവിക്കാൻ കഴിഞ്ഞു. ഇത്തരം സാഹചര്യങ്ങൾ ഉള്ളതുകൊണ്ടാണ് ഒരു എറണാകുളത്തെ കുമ്പളൂനി എപ്പിഡെമിക് പ്രിപ്പേർഡ്നസ് മോഡൽ' (Epidemic Preparedness Model) ആവശ്യമായി വരുന്നത്. കാലാകാലങ്ങളായി കുമ്പളൂനി അഭിമുഖീകരിച്ചിട്ടുള്ള ആരോഗ്യ പ്രശ്നങ്ങളെ മുൻനിർത്തി രൂപപ്പെടുത്തിയെടുത്ത ഒരു കാര്യമാണ് ഞങ്ങൾ ഇവിടെ വിവരിക്കുന്നത്.



Dr. Ashamol.C
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EXECUTIVE SUMMARY

Primary Health Centres and Family Health Centres under Palluruthy Block Panchayath, comprising Kumbalanghy, Chellanam, and Kumbalam Grama Panchayaths, serve as the frontline institutions for pandemic preparedness and response. These facilities ensure the delivery of essential public health services with a strong emphasis on disease surveillance, early detection, isolation, case management, vaccination, and risk communication. Supported by field-level functionaries including ASHA workers, Anganwadi staff, and local self-government institutions, the health system enables effective community-based interventions and outreach activities, even in geographically vulnerable coastal and rural areas. The block health system actively implements national programmes such as NHM and integrated disease surveillance mechanisms to monitor and control outbreaks. Coordination between health institutions, local governance bodies, and community stakeholders plays a crucial role in strengthening preparedness, ensuring continuity of essential services, and minimizing morbidity and mortality during pandemics. Continuous efforts in capacity building, infrastructure strengthening, digital reporting, and community awareness are prioritized to enhance resilience and ensure an effective and timely public health response across the block.

LIST OF ABBREVIATIONS

LSGD/LSGI	Local Self Government Department / Local Self Government Institution
BMO	Block Medical Officer
IDSP	Integrated Disease Surveillance Programme
NDMA	NATIONAL DISASTER MANAGEMENT AUTHORITY
PPE	PERSONAL PROTECTIVE EQUIPMENT
ICMR	INDIAN COUNCIL OF MEDICAL RESEARCH
CD	COMMUNICABLE DISEASES
NCD	NON-COMMUNICABLE DISEASES

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INTRODUCTION

Palluruthy Block Panchayat, situated within the urban–peri-urban interface of Ernakulam district, plays a vital role in the decentralized public health system of the region. With a diverse population that includes coastal communities, urban settlements, and migrant groups, the block faces unique public health challenges that require a well-coordinated and responsive healthcare delivery framework. Primary Health Centres (PHCs) and allied health institutions under the block serve as the frontline units for disease surveillance, prevention, and management, making block-level pandemic preparedness a critical component of overall health system resilience.

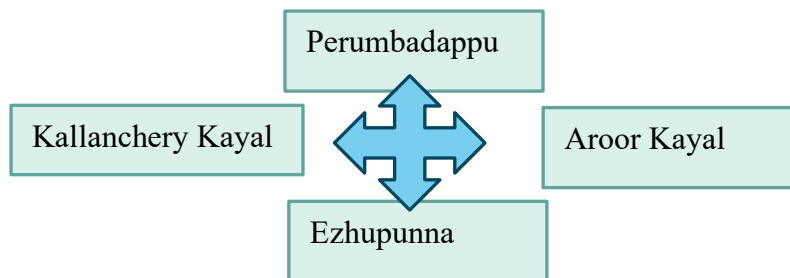
In the context of emerging and re-emerging infectious diseases, the need for a structured and comprehensive Pandemic Preparedness Plan at the Palluruthy Block Panchayat level is paramount. This plan establishes a unified framework for coordinated action among healthcare institutions, local self-government bodies, and community stakeholders. It emphasizes early detection, rapid response, efficient referral mechanisms, and continuity of essential health services during public health emergencies. Standard operating procedures for triage, isolation, outbreak investigation, and risk communication are incorporated to ensure clarity and uniformity in response across all institutions within the block.

The plan further acknowledges existing gaps, including limitations in advanced diagnostic facilities, constraints in emergency transport, and the need for continuous capacity building of healthcare personnel. Special focus is given to vulnerable populations such as the elderly, individuals with non-communicable diseases, socially marginalized groups, and migrant labourers who may face barriers in accessing timely care. A data-driven approach, supported by updated registers and surveillance systems, will enable targeted interventions and prioritization during emergencies.

Through integrated planning, intersectoral coordination, and efficient utilization of available resources, this Pandemic Preparedness Plan aims to strengthen the capacity of Palluruthy Block Panchayat to effectively prevent, detect, and respond to public health threats. It envisions a resilient and adaptive health system that ensures equitable, timely, and quality healthcare services for all sections of the population during pandemics and other health emergencies.

LSGD AT A GLANCE

Palluruthy Block Panchayat is a key Local Self Government Institution located in Kochi Taluk of Ernakulam district, functioning as an important intermediate administrative unit coordinating development and public health activities across its constituent Grama Panchayats. Characterized by a mix of coastal and urbanizing regions, the block includes traditional fishing communities, backwater ecosystems, and densely populated settlements, closely linked to Kochi city. The Block Panchayat plays a significant role in strengthening primary healthcare delivery, supporting national health programmes, and promoting sanitation, disease surveillance, and community-based interventions. It also contributes to local economic development through fisheries, small-scale industries, and tourism, while emphasizing sustainable practices, community participation, and resilience to public health and environmental challenges.

Boundaries:

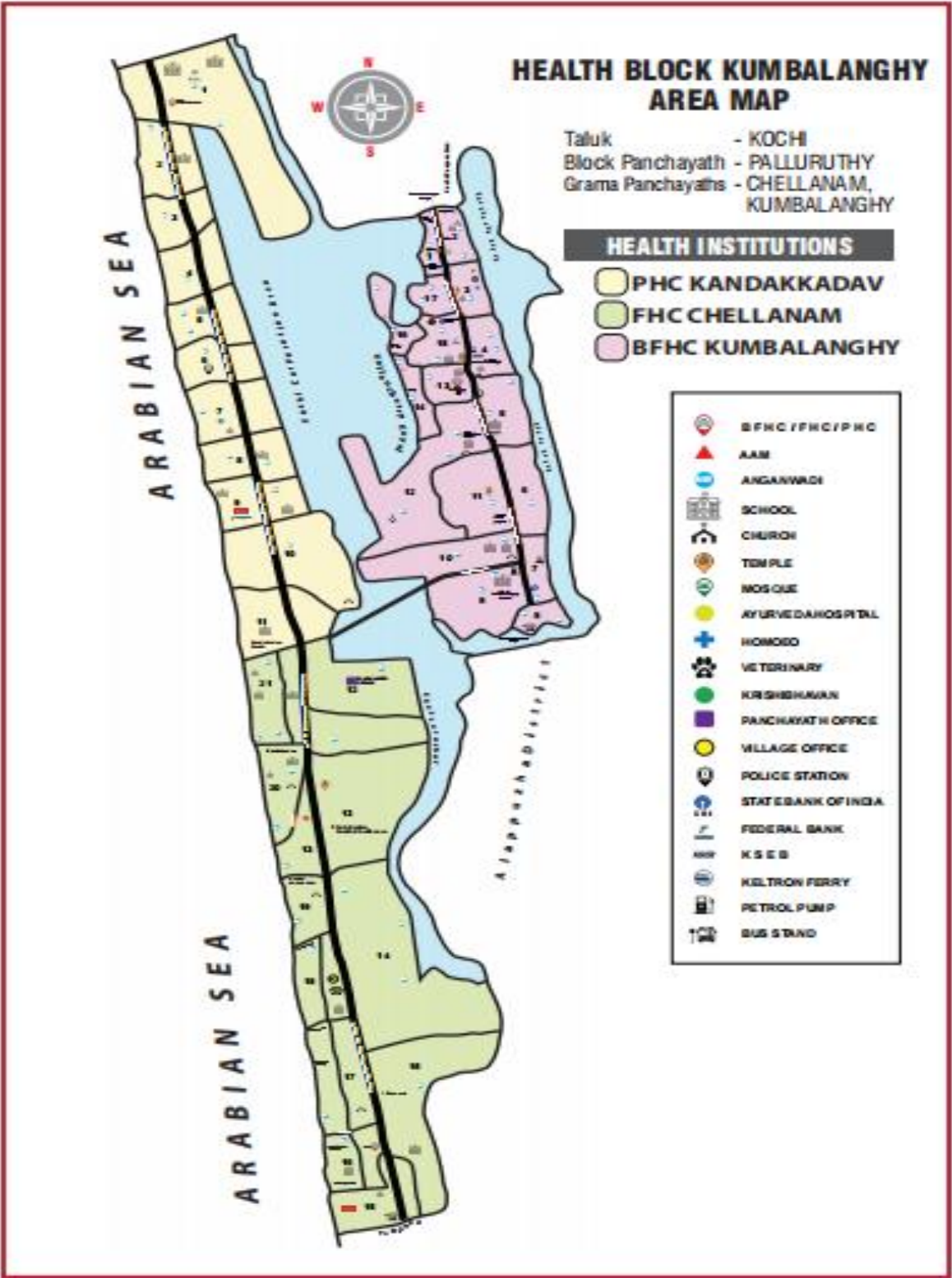


Table 1

Baseline data

LSGD	Ward	Houses	Population	Migrants	Wells	Hotspot	Ed. Institutions	Hosp pvt/govt.
Kumbalanghy	19	8049	31370	233	416	4	10	0/1
Chellanam	22	9415	38412	234	234	4	17	2/4
Kumbalam	19	8284	32568	310	628	0	10	1
Palluruthy Block	60	25748	102350	777	1278	8	37	3/5

Background of the LSGI

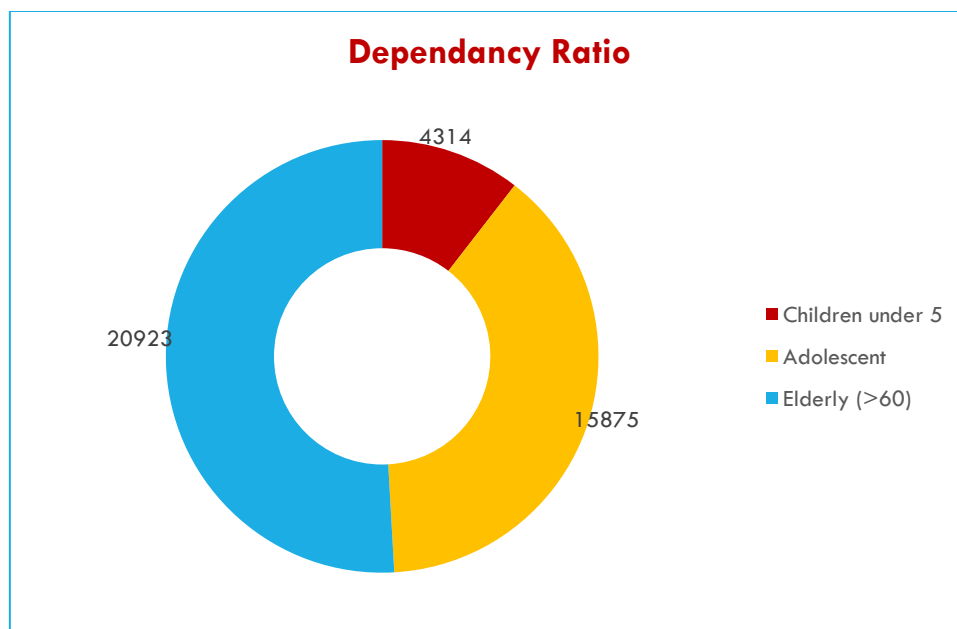
Description	Chellanam	Kumbalam	Kumbalanghy	Palluruthy Block
Type	Grama Panchayath	Grama Panchayath	Grama Panchayath	Block Panchayath
District	Ernakulam	ERNAKULAM	Ernakulam	Ernakulam
Number of wards	22	19	19	60
Total area (sq. km)	19.37sq.km	20 sq.km	15.21sq.km	54.58sq.km
Population (Projected)	38412	32568	31370	102350
Population density	1930persons/sq km	1628 persons/sq km	2062/sq km	
Terrain	Costal	NIL	Low lying/backwaters	Coastal & Back Water
Number of rivers passing through LSGI	12,12,19,21	NIL	Nil	4
Number of water bodies in the LSGI	9	3	9 (Lake & Ponds)	21
Number of educational institutions	17	8	10	35
Factories / small-scale industries	15	2	NIL	17

Flood-prone wards	1 TO 10	NIL	19	29
Landslide-prone wards	NIL	NIL	NIL	NIL
Death Management and Disposal Facilities (crematorium, including electric)	2		4	6
Auditoriums/Marriage halls/convention centres/community halls	10	7	19	36

Demographic and Vulnerable Population

Understanding the demographic composition and vulnerable population groups is essential for pandemic preparedness. Children, elderly, economically deprived families, migrant workers, and socially vulnerable groups are at increased risk during public health emergencies due to higher exposure, limited access to services, and dependency on public systems.

Description	Kumbalanghy	Chellanam	Kumbalam	Palluruthy block
Total population	31370	38412	32568	102350
Male	15346	19479	16237	51062
Female	16024	18933	16331	51288
Transgender	0	1	1	2
Children under 5	1090	1748	1476	4314
Adolescent	4320	3637	7918	15875
Elderly (>60)	5670	8069	7184	20923
SOCIAL/LIVELIHOOD VULNERABILITY				
Previous EPEP family	73	73	111	257
BPL family	2910	2910	2899	8719
Tribal communities	0	0	NIL	0
Migration	Immigrant	233	310	776
	Emigrant	750	319	1341
Socio-economically deprived	73	73	436	582
Fisherfolk	752	752	436	1940
SC Community	1855	1855	3740	7450
ST Community	NIL	NIL	83	83



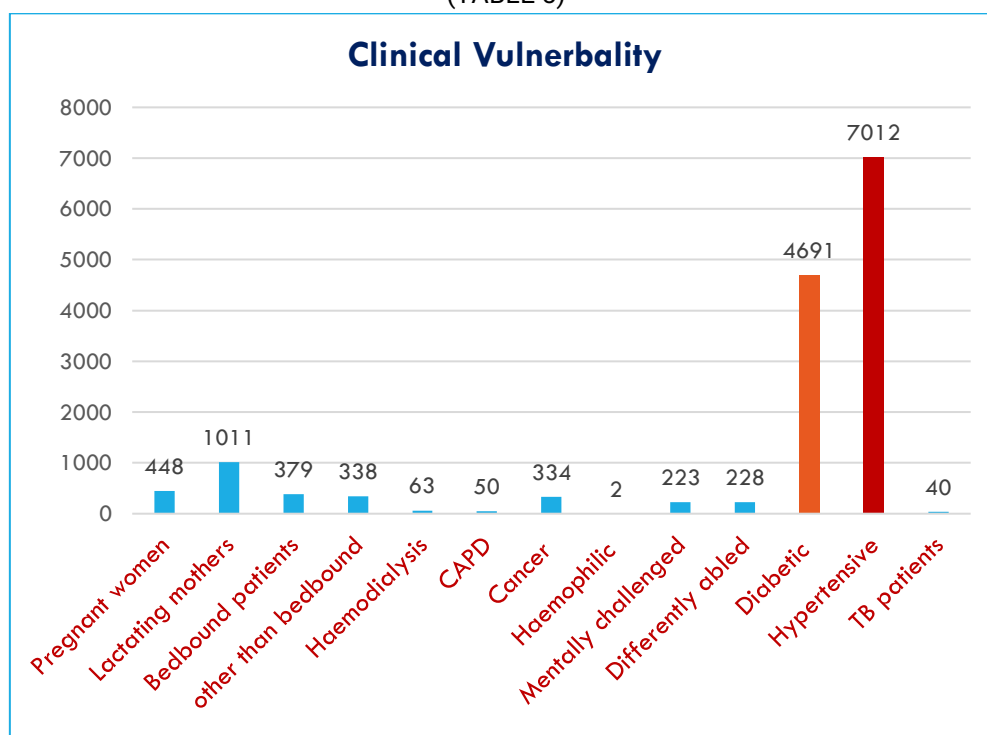
Clinical Vulnerability

Certain population group needs priority healthcare & are at higher risk of severe illness, complications, and mortality during pandemics. Patients with chronic diseases, those requiring regular medical care, and individuals with mobility or functional limitations face challenges in accessing timely care during emergencies. Mapping these groups helps in prioritizing continuity of treatment, medicine stock planning, oxygen support, referral transport, and targeted home-based care.

Description	Kumbalanghy	Chellanam	Kumbalam	Palluruthy block
Pregnant women	128	144	176	448
Lactating mothers	272	346	393	1011
Bedbound patients	106	149	124	379
other than bedbound	54	236	48	338
Hemodialysis	26	19	18	63
CAPD	1	49	Nil	50
Cancer patient	123	92	119	334

Hemophilic patients	0	1	1	2
Mentally challenged	85	104	34	223
Differently abled	61	92	75	228
Diabetic patients	2708	1503	480	4691
Hypertensive patients	2871	2816	1325	7012
TB patients	14	11	15	40

(TABLE 5)



Major Festivals & Events specific to the LSGI

(Table 6)

Sl. No.	Name of festival	Month	Expected Crowd size
1	Bhuvaneswari temple	January	2000
2	Arakkal Temple	February	1500
3	St. George	19-Mar	2000
4	St. peters	19-Mar	2500
5	Azhikkakathu	19-Mar	750
6	St. Joseph	19-Mar	1500
7	Kallanchey Fest	March	1000
8	Illickal temple	April	2500
9	Gurumandapam	Every month	250
10	SNDP Hall	Every month	200
11	St.Sebastain Church North Chellanam	January, March 16	2000
12	St Joseph church Kannamaly	March 19 every year	8000
13	Nithyasahaya Church	Every January	1500

INFRASTRUCTURE & RESOURCE INVENTORY

Health Facility Directory & Basic Capacity in the LSGD

This section provides an overview of the healthcare infrastructure available within the LSGD area. It outlines the distribution and basic capacity of health facilities that form the backbone of service delivery during routine times and public health emergencies.

Family Health Centres (FHCs) and Community Health Centres (CHCs) generally function as the first point of contact for the community, providing essential outpatient and inpatient services. General Hospitals (GH) and Medical College Hospitals (MCH), where accessible, serve as the main referral centres for advanced diagnostics, specialist care, and critical services during public health emergencies. This inventory helps identify existing strengths, gaps, and potential surge capacity that can be mobilised during a pandemic or disaster.

Sl.no .	Health Facility	Type of Facility	Contact Number	Total beds	ICU Beds	Oxygen-Supported/ Ventilator Beds	Ambulances
Government Healthcare Facilities							
1	Kumbalangi	CHC	9446452419, 048402240472	12	3	NIL	2
2	Chellanam	FHC	4842245001	NIL	NIL	NIL	NIL
3	Kandakkadu	FHC	4842245001	NIL	NIL	NIL	NIL
4	Fhc Panangad	FHC	4842703535	2	0	0	1
AYUSH Healthcare Facilities							
1	Govt. Ayurvedha Dispensary	Dispensary	9446579216	NIL	NIL	NIL	NIL
2	Govt. Homoeo Dispensary	Dispensary	94476454121	NIL	NIL	NIL	NIL
3	Govt. Ayurvedha Dispensary	Dispensary	8281922207	0	0	0	0

4	Govt. Homoeo Dispensary	Dispensary	9446820304	0	0	0	0
Private Healthcare facilities							
1	CORTINA HOSPITAL	PRIVATE	9158157090	12	0		0
2	ST: Joseph Hospital Kannamaly	PRIVATE	0484 2247448	20	0	0	0

Private Clinics

Private clinics are an essential part of pandemic preparedness, as they are often the first-place people seek care when symptoms begin. In many communities, private clinics manage a significant share of outpatient visits and therefore play a critical role in early case detection, timely referrals, and disease surveillance. Having an up-to-date understanding of where these clinics are located, the services they provide, and how they are linked to the public health system helps ensure that no cases are missed during an outbreak. It also allows health authorities to engage private practitioners more effectively for reporting, risk communication, and coordinated response, strengthening the overall capacity of the health system to manage public health emergencies.

Sl. No.	Name of Clinic	Registered (Y/N)	Clinic (General / Specialty)	Address	Contact Number	Diagnostic Facility (Y/N)	Ambulance Linkage (Y/N)
1	WELCARE	No	General	Illickal Kumbalanghy	8921280526	No	No
2	Family care clinic	NO	General	Pazhangad Kumbalanghy	8089226354	No	No
3	MEDICAL CENTRE	NO	Private	Niji Theatre Chellanam	7025738349	No	No
4	Dental Clinic	Yes	Private	Kannamaly	984768475	No	No
5	Dr.Sooraj Clinic	Yes	Private	Near St.George Chellanam	9947295860	No	No
6	SKY	No	GENERAL	PANANGAD, KUMBALAM	8485214574	Yes	No

7	NES MED	No	GENERAL	PANANGAD, KUMBALAM	828145612 36	Yes	No
8	TRINITY	No	GENERAL	KUMBALAM	994658214 5	Yes	No

Healthcare Education & Training Institutions- Nil

Specialized Services & Emergency Inventory

This section provides a detailed view of the specialized medical resources available to the community, focusing on emergency response and critical care capabilities. This table tracks the vital assets required for managing severe illnesses and emergencies across Government, Private, and AYUSH sectors.

(Table 9)

Item	Govt	Private	AYUSH	Total
Hospital beds	17	21	0	38
Oxygen-generating systems(Y/N)	2	1	0	3
Oxygen-supported beds (Numbers)	1	1	0	2
Ventilator-supported beds	0	0	0	0
ICU beds	0	0	0	0
Burns units	0	0	0	0
Blood centres	0	0	0	0
BLS ambulances	0	0	0	0
ALS ambulances	0	0	0	0
Dialysis facilities	0	0	0	0
Dispensaries	2	3	5	10
Medical store	2	14	0	16
Industrial establishments (Medium-scale industries/small-scale industries establishments to whom we can depend in a worst-case scenario)	NIL	5	NIL	5

Oxygen & Diagnostic Capacity

Monitoring **oxygen and diagnostic capacity** is a critical component of public health preparedness, ensuring that the LSGD can handle both chronic care and sudden surges in respiratory or infectious diseases.

Name of Health Facility	Oxygen-generating System (Y/N)	Backup Oxygen Source (Y/N)	Diagnostic Facilities Available(Y/N)				
			Lab	USG	X-ray	CT/MRI	RT-PCR
Government Healthcare Facilities							
CHC KUMBALANGHY	NO	NO	YES	NO	YES	NO	NO
FHC Chellanam	NO	NO	NO	NO	NO	NO	NO
PHC Kandakkadavu	YES	NO	NO	NO	NO	NO	NO
FHC PANANGAD	YES	NO	YES	NO	NO	NO	NO
Private Healthcare Facilities							
Cortina Hospital	NO	YES	NO	YES	NO	NO	NO
St. Joseph Hospital, Kannamaly	YES	NO	YES	NO	NO	NO	NO

Diagnostics facility mapping at the LSGI level

The diagnostic capacity of Kumbalanghy G.P represents the "intelligence network" of our healthcare system. The speed and accuracy of disease identification depend entirely on the distribution and technical level of these facilities.

(Table 11)

Item	Govt	Private	AYUSH	Total
General labs	2	19	0	21
Microbiology labs	1	5	0	6
RT-PCR labs	0	0	0	0
USG units	0	1	0	1
CT/MRI units	0	0	0	0
Research labs	0	0	0	0
Labs of other departments that can be repurposed	1	0	0	1

Laboratory Identification & Basic Details

(Table 12)

Sl. No.	Name of Laboratory	Ownership (Govt / Private / Academic)	Address	Contact No.	24×7 Services (Yes/No)	NABL / Govt Approved (Yes/No)
Kumbalanghy						
1	Neethi lab	Private	Compression junction, Kumbalanghy	9446868161	NO	Yes
2	St. Marys	Private	Kumbalanghy	9539717339	No	Yes
3	CHC Kumbalanghy	Govt	Kumbalanghy	8086630828	No	Yes
4	Nesmid Lab	Private	North Kumbalanghy	8138068235	No	Yes
Chellanam						
5	Life Tech Centre	Private	Noth Chellanam	9061328811	No	Yes
6	CARE Diagnostic Centre	Private	Kandakkadavu	9744923688	No	Yes
7	New Life Diagnostic Centre	Private	Malikaparambu	9567705754	No	Yes
8	Well Care	Private	Ward – 3	9037574629	No	Yes
9	Life Tech	Private	Ward.8	9061328811	no	yes
10	Primary care	private	Ward 1	8590717633	no	yes
11	St.joseph hospital	private	Ward 9	2247448	yes	Yes
Kumbalam						
12	NES MED	Private	Panangad	7994322591	No	No
13	SKY CLINIC	Private	Panangad	9287727772	No	No
14	DDRC	Private	Panangad	9495005140	No	No
15	NEETHY LAB	Private	Panangad	8606560192	No	No
16	ASTER LAB	Private	Panangad	9680396803	No	No

Social and Community Infrastructure for surge plan

This table serves as our **logistics and shelter inventory**. By mapping these locations, quickly we can identify where to house displaced citizens, where to set up temporary medical clinics, and how to manage the deceased with dignity during a crisis.

Educational Institutions

Category	Kumbalanghy	Chellanam	Kumbalam	Palluruthy	Est. Capacity (Persons)
Educational Institutions					
Anganwadis	31	34	28	93	460
Schools	11	15	10	36	5000
Colleges	0	2	2	4	200
Healthcare Educational Institutions-NIL					
Community Gathering Spaces					
Community halls	4	0	3	7	7000
Auditoriums	15	10	7	32	15000
Religious buildings	20	13	2	35	5000
Vulnerable Group Support Facility					
Destitute homes	0	0	0	0	
Elderly homes	3	1	1	5	100
LSGD owned other buildings	4	0	2	6	500
Mass Fatality Management (MFM) Infrastructure					
Mortuary	0	0	0	0	
Crematorium	4	0	1	5	

(*section focuses on the **human capital** available within the LSGI. In any emergency—be it a pandemic, flood, or industrial accident—infrastructure is only as effective as the people operating it.)

Medical & Clinical Personnel

This table tracks the "Frontline" providers responsible for diagnosis, treatment, and clinical management. Total health workforce: 41 personnel, only one CHC serving as primary surge capacity." A detailed directory with the contact numbers of all workers is maintained (Annexure in 1).

(Table15)

Cadre	Govt (No.)	Private (No.)	Palluruthy Block
Doctors— Modern Medicine	17	16	33
Doctors — AYUSH	5	5	10
Doctors — Veterinary	3	NIL	3
Doctors – Dental	NIL	8	8
Nursing officers	12	7	19
Lab technicians	5	21	26
Optometrist	2	3	5
Pharmacists	5	11	16
Psychologists & Counsellors	1 (NHM)	NIL	1

Public Health & Field-Level Workforce

These individuals are the backbone of surveillance, maternal-child health, and decentralized care.

(Table16)

Cadre	Kumbalanghy	Chellanam	Kumbalam	Palluruthy
HS (Health Supervisors)	1		0	1
HI (Health Inspectors)	1	2	1	4
LHS (Lady Health Supervisor)	1	0	0	1
LHI (Lady Health Inspectors)	1	2	0	3
JPHN (Jr Public Health Nurses)	6	7	5	18
JHI (Jr Health Inspectors)	2	3	2	7
MLSP(Mid-LevelService Providers)	5	6	5	16
Palliative Nurses	2		1	3
RBSK Nurses	2		1	3
PRO	1			1
Epidemiologist	1		0	1
Data Manager	1		0	1

Community & Support Cadre

This group represents the surge capacity of the LSGI—people who can be called upon for logistics, rescue, and specialized support.

(Table 17)

Cadre	kumbalanghy	Chellanam	Kumbalam	Palluruthy Block
ASHA Workers	26	31	18	75
AWW (Anganwadi Workers)	31	35	28	94
Emergency Medical Volunteers (Trained)	20	0	0	20
Kudumbashree	320	474	111	905
MNREGS	3612	13	310	3935
Purusha Swayam Sahaya Sangham	16	41	18	75
Ex-Servicemen	38	14	38	90
Retired Police Officers	23	25	5	53
NCC/NSS Volunteers	240	168	150	558
Red Cross volunteers	30	93		123
One Health Community Volunteers	28	2	180	210
One Health Community Mentors	19	5	18	42

Community Organizations

This section details the presence of community-based organisations (CBOs), non-governmental organisations (NGOs), faith-based organisations (FBOs), Kudumbashree Self-Help Groups (SHGs), and Ayalkootams within the Local Self-Government Institution (LSGI). These groups enhance grassroots mobilization, resource distribution, and support networks crucial for pandemic response and community resilience.

(Table 18)

Category	Kumbalanghy	Chellanam	Kumbalam	Palluruthy Block
NGOs	15	0	2	17
Religious based organizations	10	3	5	18
Foreign based organizations	NIL	0	0	0
Sports Club/youth clubs	6	2	6	14
Kudumbashree SHGs	320	357	1813	2490
Ayalkootams	115	357	221	693
Political organizations	5	2		7
Residential organizations	5	0	54	59

Administrative & Emergency Services

This section outlines the availability of key non-health emergency support services and infrastructure within the LSGI, which are essential for effective pandemic preparedness and response. These facilities support law enforcement, disaster response, water supply, logistics, mobility, and community-level interventions during public health emergencies.

(Table 19)

Category	Kumbalanghy	Chellanam	Kumbalam	Palluruthy	Contact details
Police Stations	1	1	1	3	04842241000, 04842247461, 04842700201
Fire & Rescue Stations Mattanchery	0	0	1	1	04842225555, 04842225555 MATTAMCHEERY
Water Pumping Points	1	0	0	11	9387990929
Public Distribution System (PDS)	10			10	9895577899

Information regarding resources

The availability of essential transport and support resources plays a quiet but critical role in saving lives. Equipment such as ambulances, mobile mortuaries, amphibian ambulances, and motorized boats ensures that patients, samples, and healthcare teams can move swiftly—even in flooded, remote, or difficult terrains. Heavy vehicles like JCBs, cranes, tractors, and torus lorries support logistics, waste management, emergency infrastructure, and rapid conversion of spaces into care or isolation facilities. Taxis, four-wheel-drive vehicles, and trucks help maintain continuity of essential services, reach vulnerable populations, and support home-based care and supply delivery.

(Table 20)

Means of transportation	Kumbalanghy	Chellanam	Kumbalam	Palluruthy Block
JCB	2	2	1	5
Crane, Tractor	NIL	NIL	1	1
Heavy Trucks	NIL	NIL	5	5
Mobile mortuaries	NIL	3	0	3
Ambulances	1	1	3	5
Boats	1	131	0	132
Taxi service/Auto	35/100	41	17	93

Note: For specific details regarding vehicle owners and contact information, please refer to **Annexure [X]**.

ONE HEALTH & ENVIRONMENTAL SURVEILLANCE

The One Health method integrates environmental, animal, and human health to enable proactive pandemic preparedness. Panchayat-level surveillance needs to be improved in order to detect and treat zoonotic and environmentally generated diseases early. Surveillance is strengthened through systematic assessment of animal populations, veterinary infrastructure, poultry and slaughter facilities, inter-sectoral coordination, and specialised tools like avian influenza seasonality mapping using GIS in previous outbreaks to enable predictive alerts and ward-specific sampling to support effective pandemic preparedness in high-risk areas.

Animal & Bird Population

Mapping animal and bird populations at the Panchayat level is essential for identifying and prioritising zoonotic disease hazards like rabies, avian influenza (H5N1), leptospirosis, anthrax, and Nipah-like spillover occurrences. Risk classification, targeted surveillance, vaccination planning, and early epidemic detection made feasible by comprehensive population mapping all enhance One Health-based pandemic preparedness.

		Kumbalangi		Chellanam		Kumbalam	
Category	Item	Estimated Population	Wards	Estimated Population	Wards	Estimated Population	Wards
Animal Population	Livestock (Cattle/Goats/Buffalo)	324/246/5	1-19	28	12,15,15	1060	5,9,17,18
	Pet Animals (Dogs/Cats)	879	1-19	99	12,13,14,15,16,17,18,19, 20,21	568	
	Stray Dog Population	56	1-19	68	19,16,21		
	Pig Farms	NIL	1-19	19	14	Apr-64	6,7,8
	Sheep / Goats	246	1-19	13	12,21	485	1,9,12,10,17
Bird Population	Poultry Units (Birds)	nil	1-19	28	19,20	102	17,15,18
	Poultry-(FOWL)	156	1-19	119	12,13,14,18,21	4482	all wards
	Wild/Migratory Birds	1	8,9	NIL		NIL	
	Crow Mortality Events	NIL		NIL		NIL	

The main risk of zoonotic diseases in **Kumbalanghy** is concentrated in **Wards in all Wards**, which is explained by the presence of stray dog of high density, cattle congregation areas, and poultry units. The stray dog population in **market areas, fish landing sites, bus stations** continues to be a substantial problem for rabies surveillance and bite prevention. There is a considerable risk of avian influenza introduction and amplification during **November - December** due to the seasonal presence of migratory and resident water birds near **backwater at Ward 8&9**. As all the wards are prone to flood there is high risk of leptospirosis, especially during monsoon.

Veterinary Infrastructure

Veterinary institutions are a core pillar of One Health surveillance, enabling early zoonotic disease detection through vaccination, investigation of unusual animal illness or deaths, sample collection, and timely outbreak reporting. A well-mapped and responsive veterinary network strengthens coordination with human health and LSGI systems, ensuring rapid response during zoonotic events and pandemics.

(Table 22)

Facility Type	Name of Facility	Ownership Govt / Pvt	Location(Ward No)	Contact number
Veterinary Dispensary	Govt.Veterinary Kumbalanghy	Govt	3	9496839449
Veterinary Dispensary	1	GOVT	18	7558820116
Veterinary Dispensary		1	3	9074141804

No Veterinary Hospital / Polyclinic, Mobile / Emergency Vet Service (incl. night services), Pet Homes / Animal Shelters, Slaughterhouse-linked Veterinary Inspection Unit.

Veterinary Doctors & Workforce

Early detection, diagnosis, reporting, and reaction to animal illness epidemics depend on the availability and accessibility of qualified veterinary specialists. By identifying unusual animal morbidity or mortality promptly, collecting samples promptly, and coordinating efficiently with human health and LSGI systems—especially during zoonotic outbreaks and pandemic-prone situations—a clearly defined veterinary workforce enhances One Health surveillance.

(Table 23)

Category	Number Available	Type (Govt/Pvt)	Contact number
Government Veterinary Doctors	3	Govt	9496839449, 7558820116, 9074141804
Para-veterinary Staff/ Attenders	1	Govt	8645396647
Livestock Inspectors	1	Govt	7559815160
Para-veterinary Staff / Attenders	1	Govt	
Private Veterinary Doctors, Contract / On-call Veterinary Support (if any)	Nil		

High-Risk Interface Points (Surveillance Sites)

High-risk interface points for zoonotic disease surveillance in Kumbalanghy Grama Panchayath include wetland–livestock–human contact zones, backyard poultry farms, cattle sheds near water bodies, fish markets, and areas of high human–animal interaction such as community slaughter points and migratory bird congregation sites. These are the primary surveillance sites where zoonotic spillover risks are elevated.

(Table 24)

		Kumbalanghy		Chellanam		Kumbalam
Type of Habitat	Type of High risk interface	Geographical vulnerability	Type of High risk interface	Geographical vulnerability	Type of High risk interface	Geographical vulnerability
Wetlands & Backwaters/ Migratory Bird Congregation Areas	Presence of migratory bird in Ward 7,8, 9&10	Wetlands adjoining Kumbalanghy Kandakadavu road	All ward in chellanam panchayath	Chellanam is a coastal area		
Fish & Meat Markets	High density of humans and	Local fish markets and	Ward 12 kandakadavu	Cattle shed near water body in Uppukandam area		
	animals, poor hygiene	informal slaughter points	Ward 16 chellanam harbour	Harbour Area		
Rodent-Infestation	Cattering units (6)	Ward 1,2,3,8,17				
	High risk for Leptospirosis					

(Table 25)

	Kumbalanghy	Chellanam	Kumbalam
Category	Count/Ward No	Count/Ward No	Count/Ward No
Poultry Farms	Nil	1/14	Nil
Backyard/ Clustered Poultry Units	Nil	0/14,19,1	Nil
Duck Rearing Units (open water access)	Nil	6/12,14,19,20,1	Nil
Slaughterhouses/ Slaughter Points	Nil	8/12,14,19,1	Nil
Meat/Fish Markets	1/14	6	Nil
Live Bird Sale Points	Nil	0	Nil
Cattle Markets / Weekly Animal Fairs	Nil	0	Nil
Pet Shops/ Breeders	Nil	0	Nil
Animal Shelters/ Pet Homes	Nil	1/21	Nil
Waste Disposal Sites near Animal Units	Nil	1/12	Nil

Environmental Risk Mapping

Environmental risk mapping identifies monsoon/flood hotspots for vector-borne (dengue, chikungunya), water-borne (leptospirosis, diarrhoea), and zoonotic diseases in Kerala's wetlands. Systematic surveillance supports early warnings, targeted interventions, and Panchayat pandemic preparedness.

Waterborne exposure: Flood-prone areas and stagnant water bodies facilitate raising leptospirosis risk.

Traditional practices: Informal slaughter and fish markets lack standardized hygiene, creating *spillover opportunities*.

(Table 26)

Environmental Risk Mapping								
	Kumbalangi			Chellanam			Kumbalam	
Risk Factor	High-Risk Wards	Key Locations	Risk Level	High-Risk Wards	Key Locations	Risk Level	High-Risk Wards	Risk Level (High/Med/Low)
Flood-prone areas	All wards		Medium	5	11,12,13,14,15,	11,17,18,19,20	Nil	Med
Water bodies/wetlands	19-Jan		Medium	6,1-11	14	14	Nil	Med
Solid waste accumulation	1,9	Melthanam, Kanda	Medium	0	0	0	Nil	Med
Animal waste disposal issues	4,15,6,5	Compression, Priy	Medium	0	0	0	Nil	Med
Rodent infestation zones	1-19		Low	0	0	0	Nil	Med

Industrial effluent discharge	Nil			0	0	0	Nil	Med
Construction sites / abandoned buildings	1-19/0		Medium	3	12,16,18		Nil	Med
Poor drainage/blocked canals	1, 3,14,15, 16,10		Medium	0	0		Nil	Med
Drinking water source contamination risk	2,10	Melth anam, Kumb alangh	Medium	1-11	20		Nil	Med

Disease Seasonality Mapping

1, **Flooding & waterlogging** → amplifies leptospirosis, malaria, diarrheal diseases.

2, **Migratory bird influx (Nov–Feb)** → avian influenza risk.

3, **Mosquito breeding cycles** → vector-borne disease peaks in monsoon.

4, **Agricultural practices** → close human–animal contact in paddy fields.

(Table 27)

Disease seasonality Mapping									
	Kumbalanghy				Chellanam				
Disease	Peak Risk Season	Key Drivers	High-Risk Locations	Surveillance Focus	Peak Risk Season	Key Drivers	High-Risk Locations	Surveillance Focus	Peak Risk Season
Avian Influenza	Oct-March		8,9		NOV-FEB		11	0	NIL
Leptospirosis	May-Aug	Agriculture/Fish	Kumbalanghy south, Pazhangad		SUMMER	0	12,13,14, 20,21	12,14	NIL
Dengue/ Chikungunya	Jan-Dec		Kumbalanghy		RAINNY	0	12,15,20, 21	15,20,21	NIL
Acute Diarrheal Diseases	Nov-May				RAINNY	0	13,14,19, 21	13,14,19	NIL
Rabies					ALL	1-11	46033		NIL
Anthrax (rare)					NIL		NIL		NIL

Vulnerability Mapping

Vulnerability mapping pinpoints high-risk populations, occupations, and areas exposed via environment, livelihoods, socio-economics, and poor service access. Paired with environmental/seasonality mapping, it enables risk-based surveillance, targeted actions, and optimal resource use in One Health and pandemic planning.

(Table 28)

Vulnerability Factor	High-Risk Wards	Key Groups / Locations	Risk Level
Flood-prone households	2,3,4,5,8,9	South, Pazhangad, North	High
Wetland-adjacent communities	1-19		Medium
Backyard poultry / duck rearing households	Nil		
Livestock-rearing households	Nil		
Slaughterhouse & meat market workers	7-1,6-1,4-1,17-1,19-1,3-1,1-1		Low
Fisherfolk & fish market workers	1-19		
Sanitation workers	1-19		Low
Daily wage / migrant workers	1-19		Medium
Elderly & chronically ill populations	1-19		
Pregnant Women	1-19		
Children (schools, Anganwadi's)	1-19		
Limited access to safe water & sanitation	Ward 2 & 10		High

EPIDEMIOLOGICAL TRENDS (2021–2025)

Disease surveillance is the systematic collection, analysis, and interpretation of health data for planning, implementation, and evaluation of public health practice. This section presents the disease surveillance profile of the LSGI based on routine reporting systems and outbreak investigations to identify priority diseases, seasonal patterns, and emerging public health threats.

Disease Burden among human beings (Last 5 Years)

Analysis of disease-wise data for the last five years helps identify persistent public health problems, emerging diseases, and changes in disease burden. This information supports prioritisation of prevention, preparedness, and response activities at the Panchayat level.

(Table 29)

Kumbalanghy

Disease	2021	2022	2023	2024	2025	Trend (Increasing/Stable/Decreasing)
Dengue	18	20	145	199	37	Decreasing
Leptospirosis	7	2	5	4	4	Decreasing
Hepatitis A	1	0	0	5	10	Increasing
Malaria	0	0	0	2	0	Decreasing
Typhoid	0	0	2	2	1	Decreasing
H1N1	0	0	3	2	0	Decreasing
ADD	167	97	115	25	296	Increasing
Mumps	0	0	0	1	1	Stable
Measles	0	0	5	0	0	Decreasing
Hepatitis B	0	0	0	0	1	Increasing
Hepatitis C	0	0	0	0	1	Increasing
Tuberculosis	9	13	19	12	22	Increasing
COVID-19	9	2	0	0	0	Decreasing

Seasonal Trend Analysis

Seasonal analysis helps anticipate surges (e.g. dengue in monsoon, leptospirosis after floods, influenza in cooler months) and plan pre-emptive vector control, stockpiling of IV fluids, and awareness campaigns at Panchayat level.

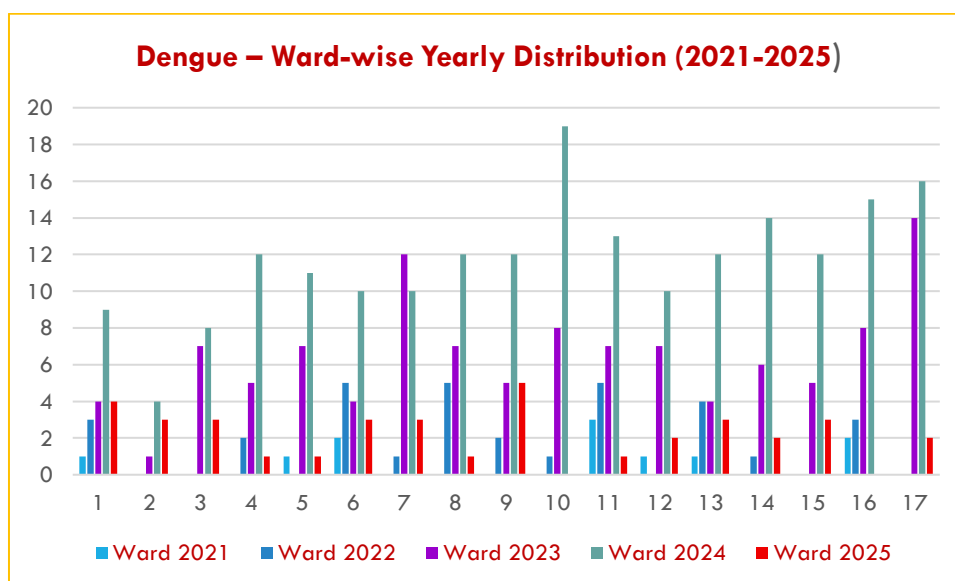
DENGUE

Dengue is a major seasonal vector-borne disease strongly associated with rainfall, water stagnation, and increased mosquito breeding during the monsoon period.

Peak: July–November

(Table 30)

Ward	Dengue – Ward-wise Yearly Distribution (2021-2025)					
	2021	2022	2023	2024	2025	Total
1	1	3	4	9	4	21
2	0	0	1	4	3	7
3	0	0	7	8	3	17
4	0	2	5	12	1	18
5	1	0	7	11	1	19
6	2	5	4	10	3	24
7	0	1	12	10	3	25
8	0	5	7	12	1	25
9	0	2	5	12	5	22
10	0	1	8	19	0	28
11	3	5	7	13	1	29
12	1	0	7	10	2	20
13	1	4	4	12	3	23
14	0	1	6	14	2	22
15	0	0	5	12	3	20
16	2	3	8	15	0	28
17	0	0	14	16	2	31
Total	11	32	111	199	37	379



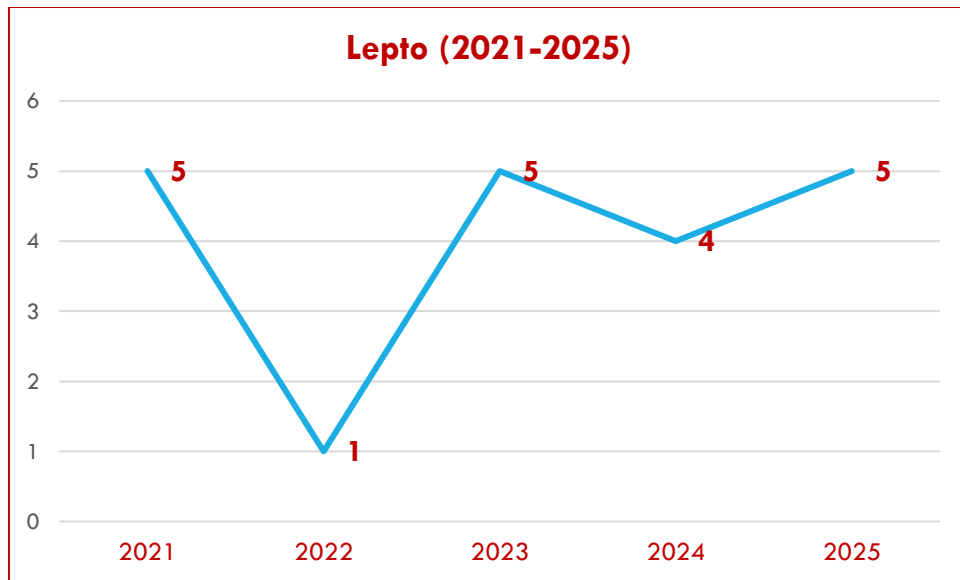
LEPTOSPIROSIS

Leptospirosis cases are closely linked to monsoon rains, flooding, and occupational exposure, particularly in low-lying and waterlogged areas.

Peak: June - August

(Table 31)

Ward	Leptospirosis – Ward-wise Yearly Distribution					
	2021	2022	2023	2024	2025	Total
1		1			1	2
2				1	2	3
3	1					1
4					2	2
6			1			1
7				1		1
8			2			2
9				1		1
10	1		1			2
11			1	1		2
14	2					2
15	1					1
Total	5	1	5	4	5	20



VIRAL HEPATITIS - A

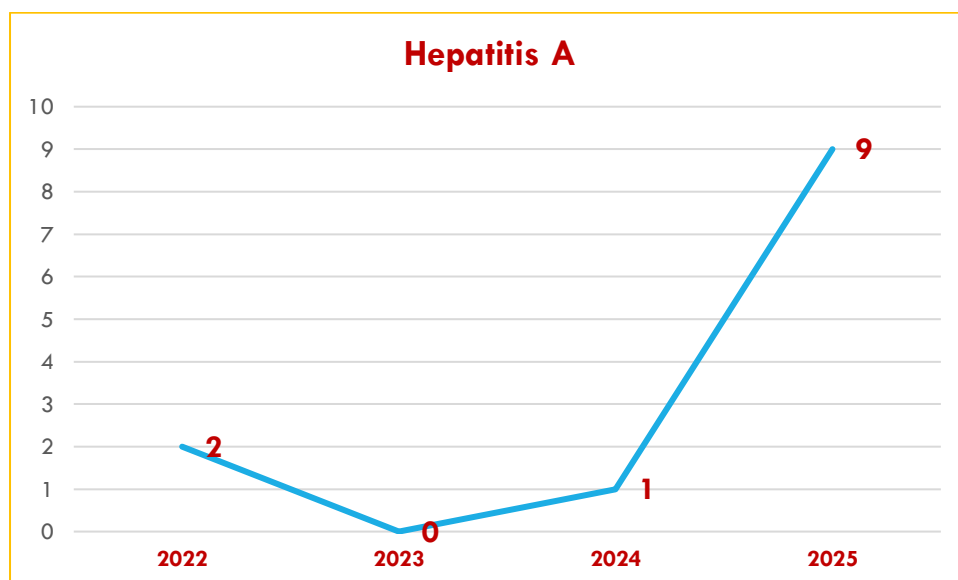
Hepatitis A cases are commonly associated with unsafe drinking water, food contamination, and breakdowns in sanitation, often presenting as clusters or outbreaks.

Peak: October - December

Hepatitis A – Ward-wise Yearly Distribution (2021–2025)

(Table 32)

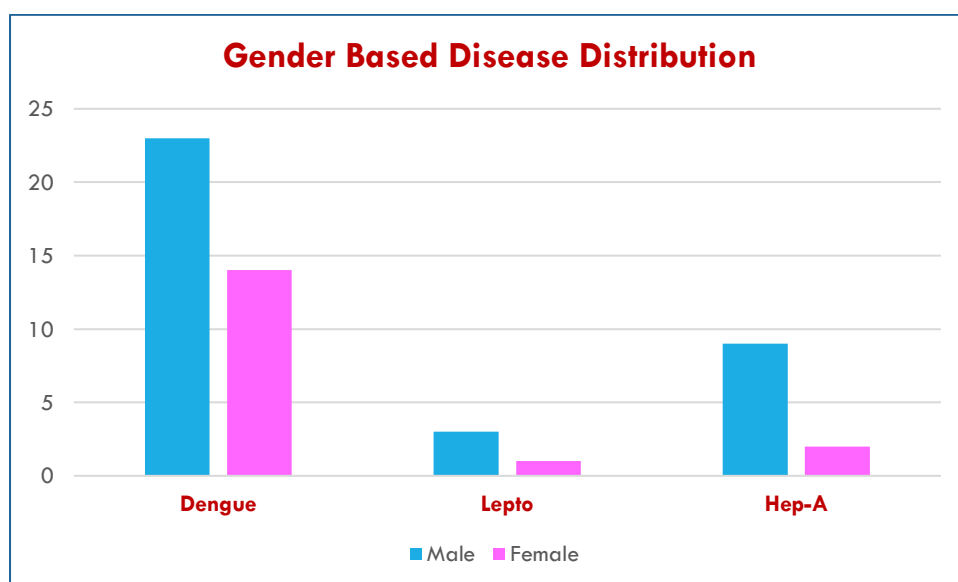
Ward	Hep A – Ward-wise Yearly Distribution			
	2022	2024	2025	Total
1			3	3
5			1	1
6			1	1
7		1		1
8	1			1
12	1		1	2
14			1	1
15			2	2

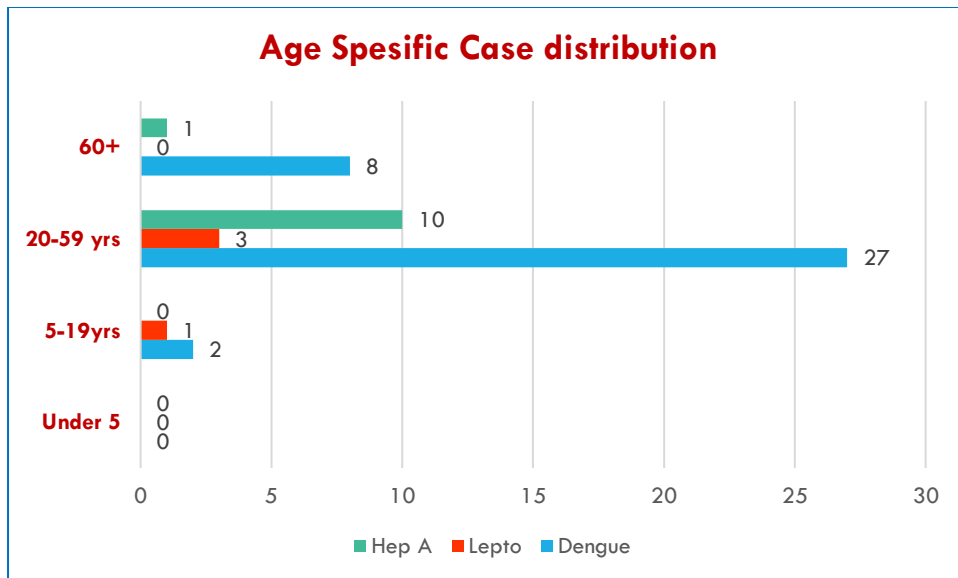


Outcome-Based Trend Analysis- 2025

(Table 33)

Sl.no	Disease	Age group	Gender		Total No.of Survival	Total no.of Death	No.of Cases received treatment
			Male	Female			
1	Dengue	Under 5	0	0	0	0	0
2		5-19yrs	0	2	2	0	2
3		20-59 yrs	17	10	27	0	27
4		60+	5	3	8	0	8
1	Lepto	Under 5	0	0	0	0	0
2		5-19yrs	1	0	2	0	2
3		20-59 yrs	2	1	3	0	3
4		60+	0	0	0	0	0
1	Hep A	Under 5	0	0	0	0	0
2		5-19yrs	0	0	0	0	0
3		20-59 yrs	9	1	10	0	10
4		60+	0	1	1	0	1

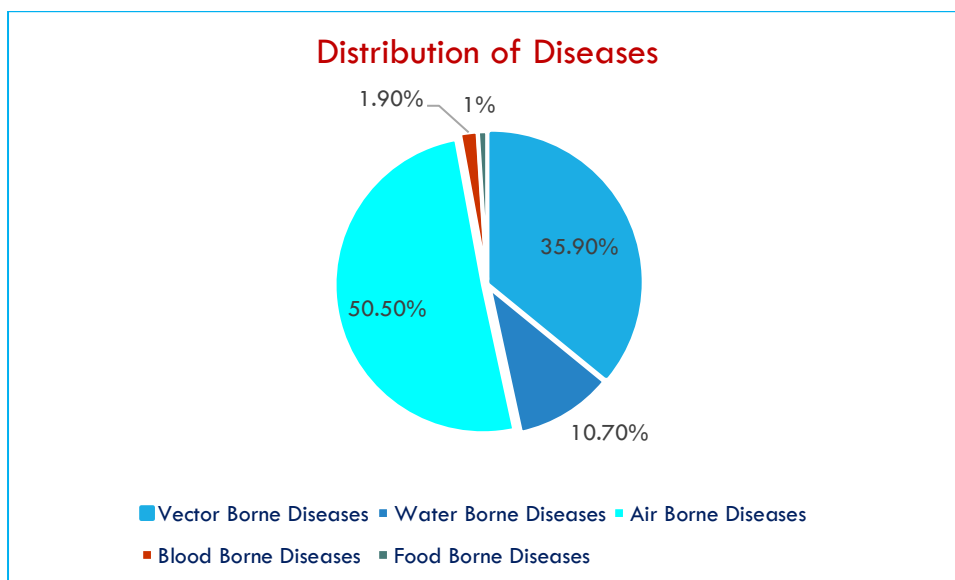




Transmission Trend- 2025

For effective management of public health issues, it is important to track the trend of disease transmission mode. It helps identify the population or place at high risk that can be used to predict outbreaks and implement targeted interventions as quickly as possible. Understanding these kinds of trends enables authorities to allocate resources efficiently and change the strategies adequately based on the trend that follows.

Mode of Transmission	No. of cases	No. of Deaths
Vector Borne Diseases	37	0
Water Borne Diseases	11	0
Air Borne Diseases	52	1
Blood Borne Diseases	2	0
Food Borne Diseases	1	0



Vector-Borne Disease

Disease	No. of Cases	No. of Deaths
Dengue	37	0
Malaria	0	0
Chikungunya	0	0

Water Borne Disease

Disease	No. of Cases	No. of Deaths
Cholera	0	0
Typhoid	1	0
Hep- A	11	0
Dysentery	0	0
Amoebiasis	0	0
E- Coli infections	0	0

Air Borne Disease

Disease	No. of Cases	No. of Deaths
Influenza	1	0
H1N1	0	0
TB	22	1
Chickenpox	30	0
Measles	0	0
Covid-19	0	0
Pertussis	0	0

Blood-Borne Disease

Disease	No. of Cases	No. of Deaths
AIDS	0	0
Hep- B	1	0
Hep- C	1	0

Zoonotic Disease

Disease	No. of Cases	No. of Deaths
Rabies	0	0
Leptospirosis	4	0
Avian influenza	0	0
West nile, Anthrax	0	0
Nipha, Scrub Typhus	0	0

Case Burden 2021-2025

Ward	Dengue	Leptospirosis	Hepatitis A	Mumps	ADD	Total
1	21	2	3	0	16	42
2	7	3	0	0	22	32
3	17	1	0	0	17	35
4	18	2	0	0	16	36
5	19	0	1	0	18	38
6	24	1	1	1	17	44
7	25	1	1	0	26	53
8	25	2	1	0	15	43
9	22	1	0	0	14	37
10	28	2	0	0	15	45
11	29	2	0	0	18	49
12	20	0	2	0	20	42
13	23	0	0	0	12	35
14	22	2	1	0	21	46
15	20	1	2	0	18	41
16	28	0	0	0	16	44
17	31	0	0	0	15	46
Total	379	20	12	1	296	708

Chellanam

Disease	2021	2022	2023	2024	2025	Trend (Increasing/Stable/Decreasing)
Dengue	8	11	17	70	13	DECREASING
Leptospirosis	4	3	3	4	3	DECREASING
Hepatitis A	0	0	0	0	4	INCREASING
Malaria	1	1	0	1	0	DECREASING
Typhoid	0	0	0	1	0	DECREASING
H1N1	0	0	0	2	0	
ADD	6	12	15	39	70	INCREASING

Mumps	0	0	0	8	5	DECREASING
Measles	0	0	0	1	0	DECREASING
Hepatitis B	0	0	0	0	9	INCREASING
Tuberculosis	5	15	8	1	10	INCREASING
COVID-19	135	85	0	0	0	DECREASING

Seasonal Trend Analysis

Seasonal analysis helps anticipate surges (e.g. dengue in monsoon, leptospirosis after floods, influenza in cooler months) and plan pre-emptive vector control, stockpiling of IV fluids, and awareness campaigns at Panchayat level.

DENGUE

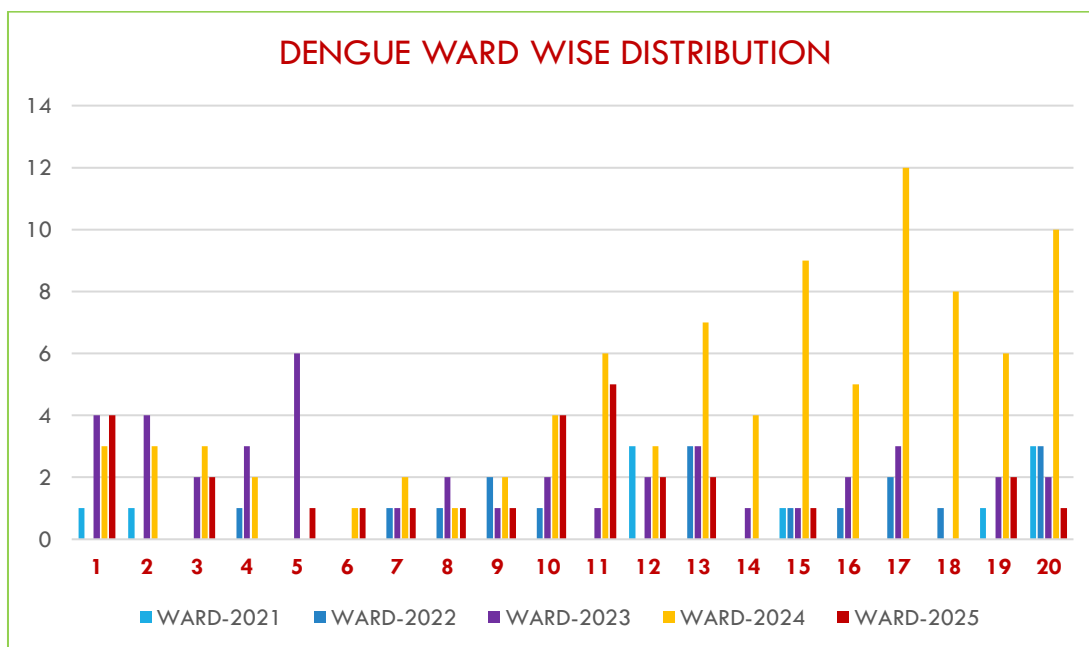
Dengue is a major seasonal vector-borne disease strongly associated with rainfall, water stagnation, and increased mosquito breeding during the monsoon period.

Peak: July–November

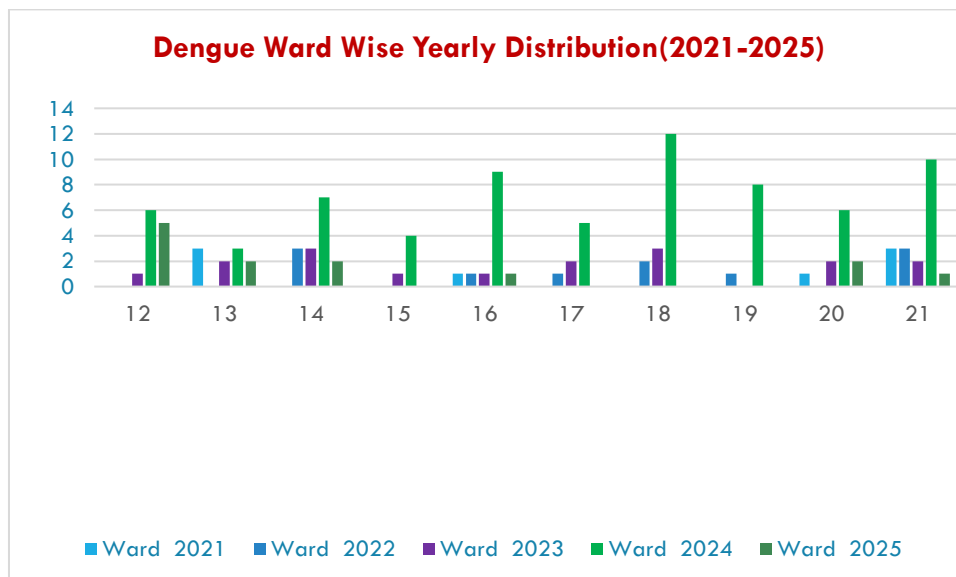
Ward	Dengue – Ward-wise Yearly Distribution					
	2021	2022	2023	2024	2025	Total
1	1	0	4	3	4	12
2	1	0	4	3	0	8
3	0	0	2	3	2	7
4	0	1	3	2	0	6
5	0	0	6	0	1	7
6	0	0	0	1	1	2
7	0	1	1	2	1	5
8	0	1	2	1	1	5
9	0	2	1	2	1	6
10	0	1	2	4	4	11
12	0	0	1	6	5	12
13	3	0	2	3	2	8
14	0	3	3	7	2	15
15	0	0	1	4	0	5
16	1	1	1	9	1	13
17	0	1	2	5	0	8
18	0	2	3	12	0	17
19	0	1	0	8	0	9
20	1	0	2	6	2	11

21	3	3	2	10	1	19
Total	10	17	42	91	28	186

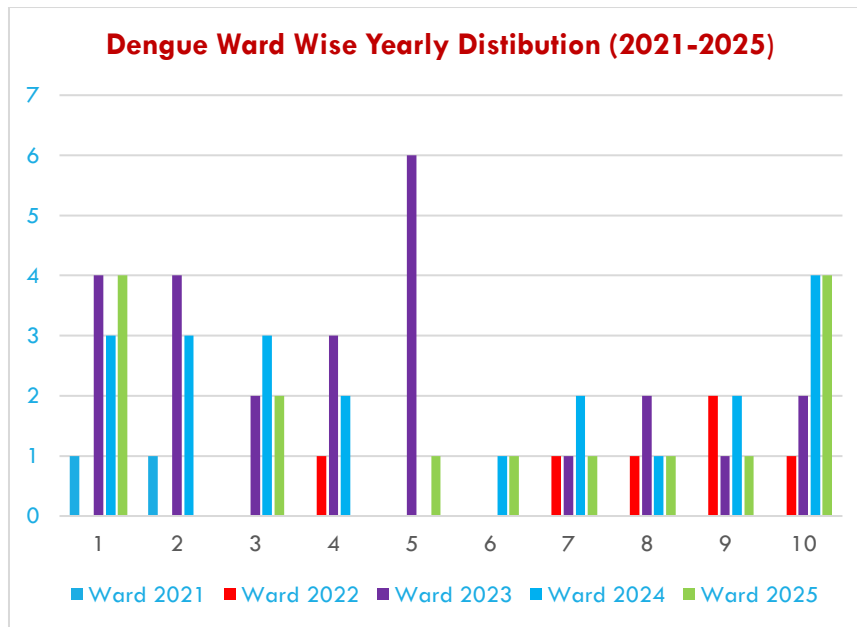
(Table 30)



Ward	Dengue – Ward-wise Yearly Distribution (2021-2025) CHELLANAM					
	2021	2022	2023	2024	2025	Total
12	0	0	1	6	5	12
13	3	0	2	3	2	8
14	0	3	3	7	2	15
15	0	0	1	4	0	5
16	1	1	1	9	1	13
17	0	1	2	5	0	8
18	0	2	3	12	0	17
19	0	1	0	8	0	9
20	1	0	2	6	2	11
21	3	3	2	10	1	19
Total	8	11	17	80	13	117



Ward	Dengue – Ward-wise Yearly Distribution KANDAKKADAVU					
	2021	2022	2023	2024	2025	Total
1	1	0	4	3	4	12
2	1	0	4	3	0	8
3	0	0	2	3	2	7
4	0	1	3	2	0	6
5	0	0	6	0	1	7
6	0	0	0	1	1	2
7	0	1	1	2	1	5
8	0	1	2	1	1	5
9	0	2	1	2	1	6
10	0	1	2	4	4	11



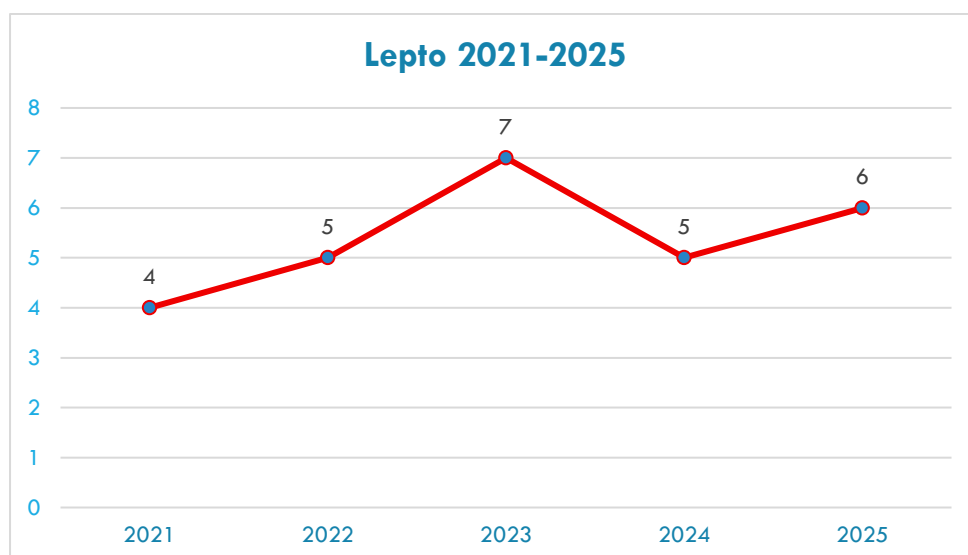
LEPTOSPIROSIS

Leptospirosis cases are closely linked to monsoon rains, flooding, and occupational exposure, particularly in low-lying and waterlogged areas.

Peak: June - August

(Table 31)

Ward	Leptospirosis – Ward-wise Yearly Distribution					
	2021	2022	2023	2024	2025	Total
1		1			1	2
2			2			2
5				1		1
6		1			1	2
8			1			1
10			1		1	2
12				4	2	6
13		1				1
14	2				1	3
15		1	1			2
17			1			1
20	1	1				2
21	1		1			2
Total	4	5	7	5	6	27



VIRAL HEPATITIS - A

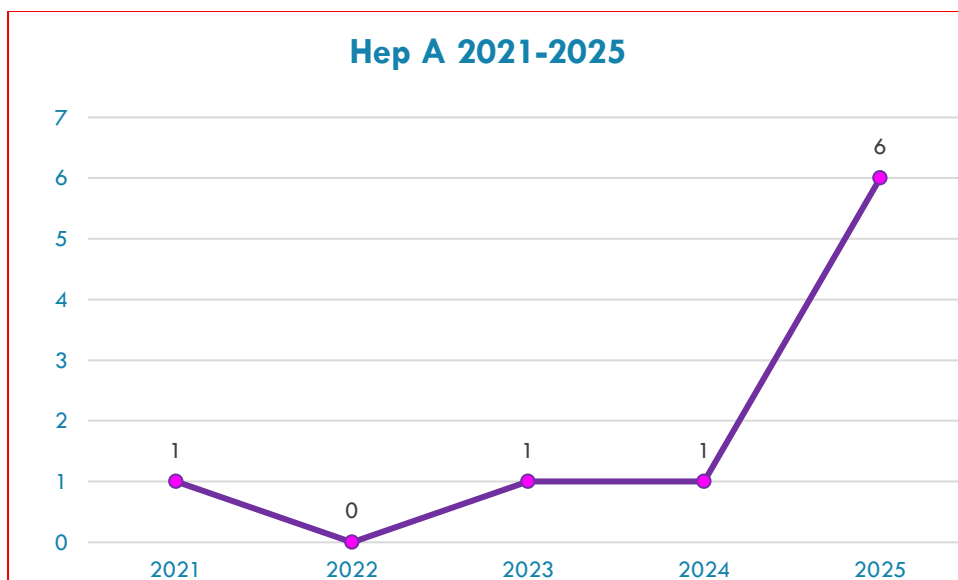
Hepatitis A cases are commonly associated with unsafe drinking water, food contamination, and breakdowns in sanitation, often presenting as clusters or outbreaks.

Peak: October – December

Hepatitis A – Ward-wise Yearly Distribution (2021–2025)

(Table 32)

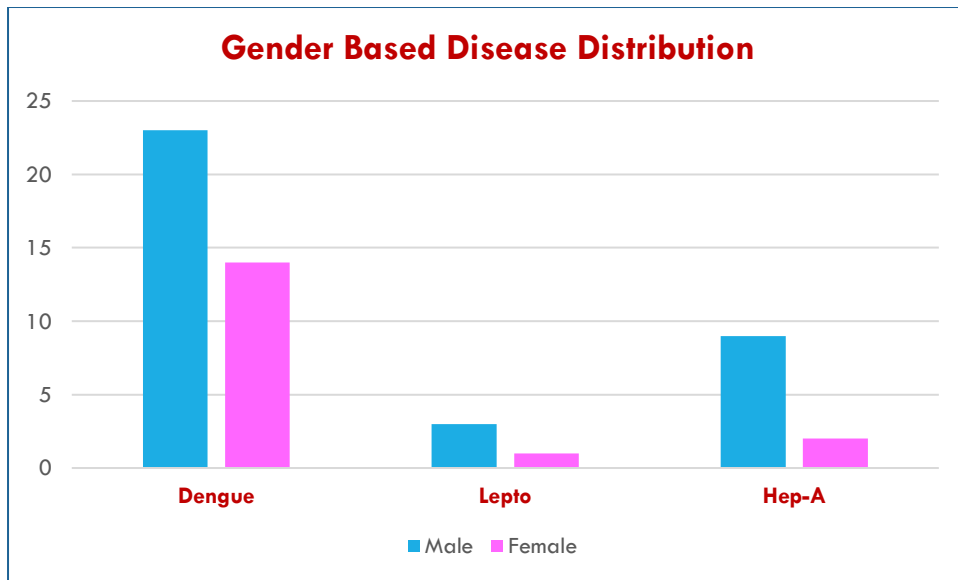
Ward	Hep A – Ward-wise Yearly Distribution					
	2021	2022	2023	2024	2025	TOTAL
6	0	0	0	1	0	1
8	0	0	0	0	1	1
9	0	0	0	0	1	1
13	0	0	0	0	0	10
14	0	0	0	0	2	2
17	1	0	1	0	0	2
18	0	0	0	0	1	1
21	0	0	0	0	1	1

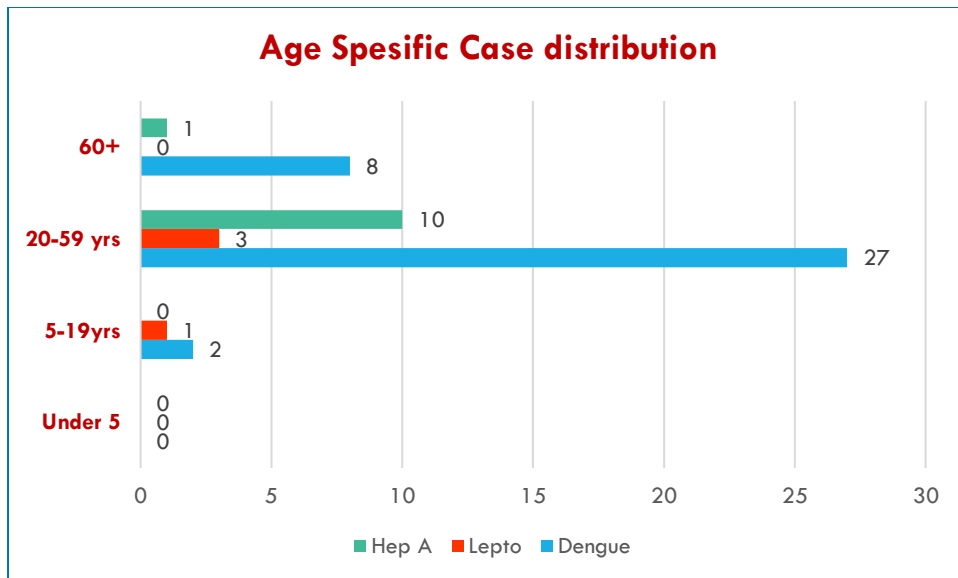


Outcome-Based Trend Analysis- 2025

(Table 33)

Sl.no	Disease	Age group	Gender		Total No.of Survival	Total no.of Death	No.of Cases received treatment
			Male	Female			
1	Dengue	Under 5	3	0	3	0	3
2		5-19yrs	4	4	8	0	8
3		20-59 yrs	8	13	21	0	21
4		60+	0	1	1	0	1
1	Lepto	Under 5	0	0	0	0	0
2		5-19yrs	1	0	1	0	1
3		20-59 yrs	1	0	1	0	1
4		60+	2	1	3	0	3
1	Hep A	Under 5	0	0	0	0	0
2		5-19yrs	0	0	0	0	0
3		20-59 yrs	7	0	7	0	7
4		60+	0	0	0	0	0

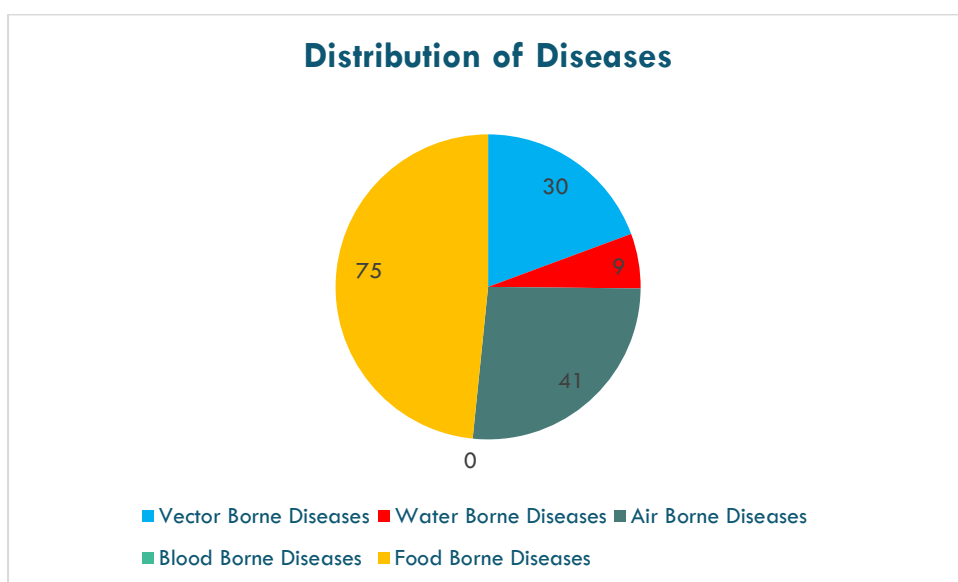




Transmission Trend- 2025

For effective management of public health issues, it is important to track the trend of disease transmission mode. It helps identify the population or place at high risk that can be used to predict outbreaks and implement targeted interventions as quickly as possible. Understanding these kinds of trends enables authorities to allocate resources efficiently and change the strategies adequately based on the trend that follows.

Mode of Transmission	No. of cases	No. of Deaths
Vector Borne Diseases	30	0
Water Borne Diseases	9	0
Air Borne Diseases	41	4
Blood Borne Diseases	0	0
Food Borne Diseases	75	0



Vector-Borne Disease

Disease	No. of Cases	No. of Deaths
Dengue	27	0
Malaria	0	0
Chikungunya	0	0

Water Borne Disease

Disease	No. of Cases	No. of Deaths
Cholera	0	0
Typhoid	0	0
Hep- A	9	0
Dysentery	0	0
Amoebiasis	0	0
E- Coli infections	0	0

Air Borne Disease

Disease	No. of Cases	No. of Deaths
Influenza	4	0
H1N1	1	0
TB	26	5
Chickenpox	45	0
Measles	0	0
Covid-19	0	0
Pertussis	0	0
Mumps	13	0

Blood-Borne Disease

Disease	No. of Cases	No. of Deaths
AIDS, Hep- B, Hep- C	0	0

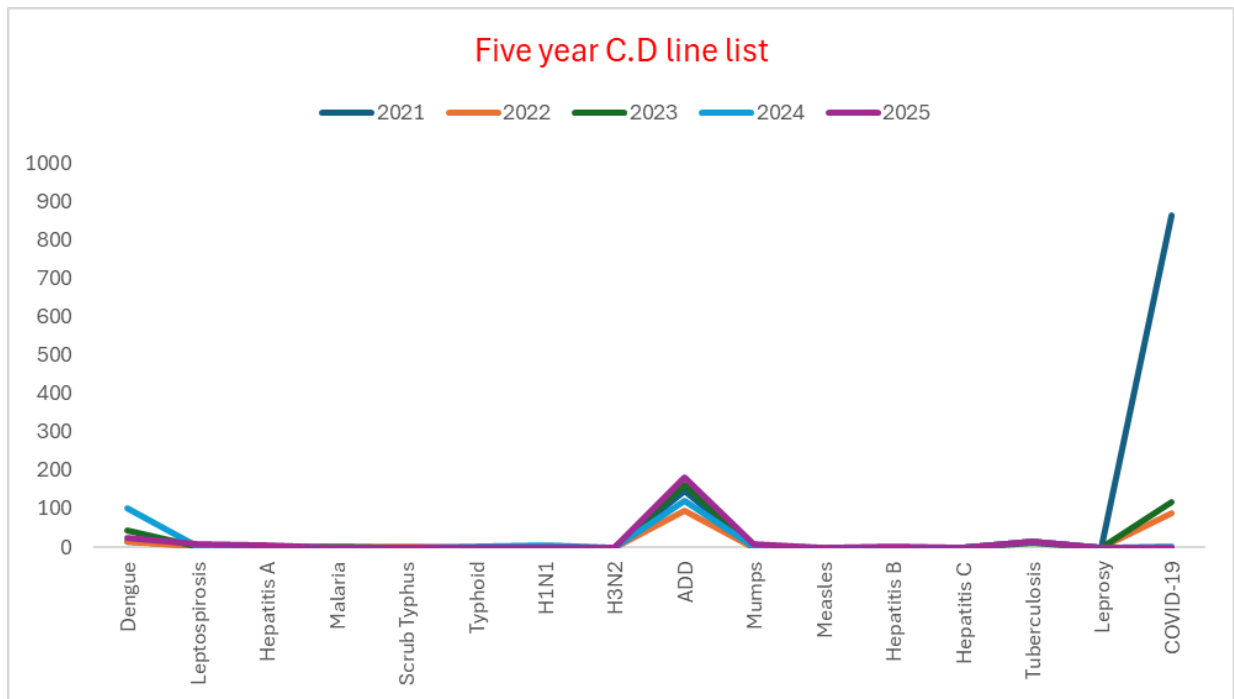
Zoonotic Disease

Disease	No. of Cases	No. of Deaths
Leptospirosis	5	0
Rabies,Avian influenza, West nile,Anthrax, Nipha, Scrub Typhus	0	0

Disease	2021	2022	2023	2024	2025	Trend(Increasing/Stable/Decreasing)
Dengue	15	15	44	100	23	Decreasing
Leptospirosis	6	2	3	3	8	Increasing
Hepatitis A	0	0	0	2	4	
Malaria	0	0	1	0	0	decreasing
Scrub Typhus	0	2	0	0	0	
Typhoid	0	0	0	1	0	
H1N1	0	0	0	4	0	
H3N2	0	0	0	0	0	
ADD	147	94	163	121	182	stable
Mumps	0	0	0	2	8	
Measles	0	0	0	0	0	
Hepatitis B	0	0	0	0	1	
Hepatitis C	0	0	0	0	0	
Tuberculosis	14	15	12	16	15	
Leprosy	0	0	0	0	0	
COVID-19	863	87	117	2	0	

Kumbalam

*(use the above table data to create the graph/diagram)



COMMUNICABLE DISEASE HOTSPOT





Seasonal Trend Analysis

Seasonal analysis helps anticipate surges (e.g. dengue in monsoon, leptospirosis after floods, influenza in cooler months) and plan pre-emptive vector control, stockpiling of IV fluids, and awareness campaigns at Panchayat level.

DENGUE

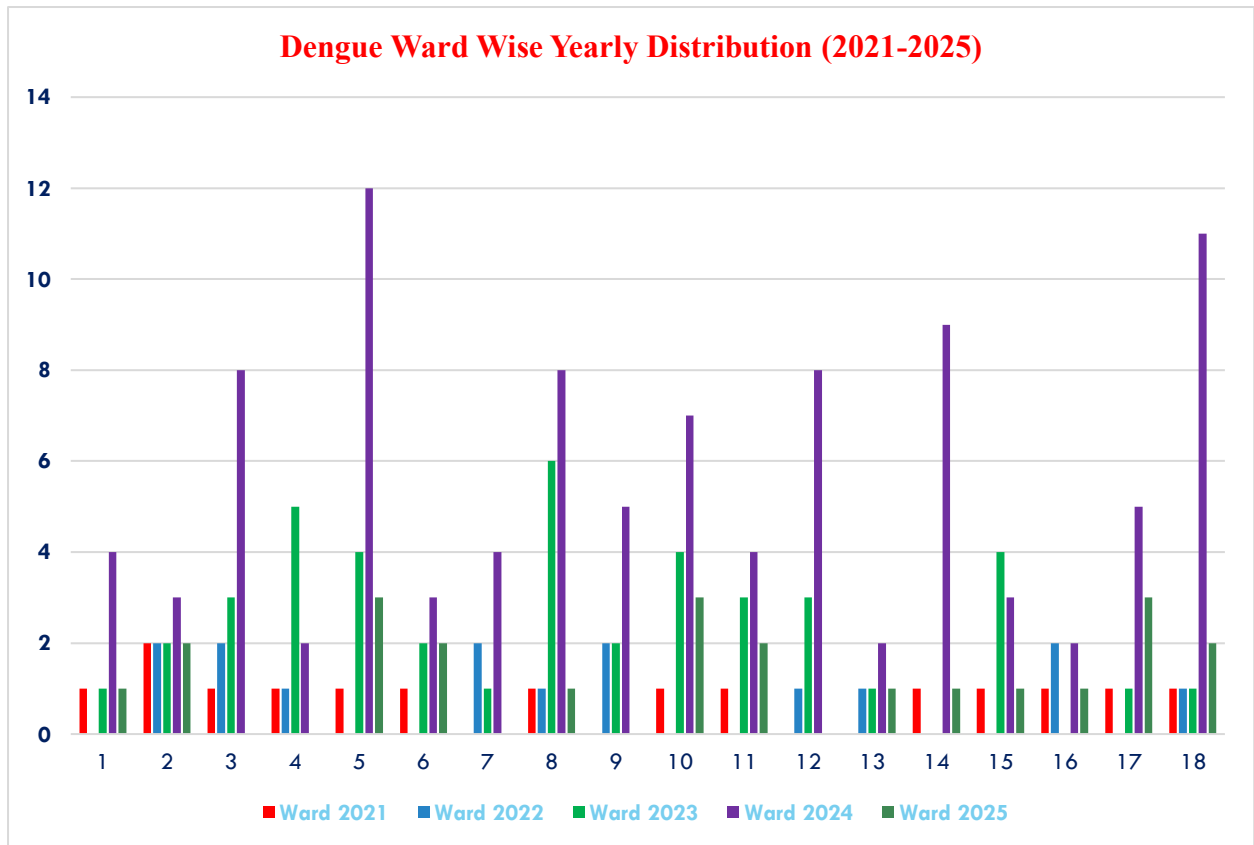
Dengue is a major seasonal vector-borne disease strongly associated with rainfall, water stagnation, and increased mosquito breeding during the monsoon period.

Peak: July–November

Dengue – Ward-wise Yearly Distribution (2021–2025)

Ward	Dengue – Ward-wise Yearly Distribution					
	2021	2022	2023	2024	2025	Total
1	1	0	1	4	1	7
2	2	2	2	3	2	11
3	1	2	3	8	0	14
4	1	1	5	2	0	9
5	1	0	4	12	3	20
6	1	0	2	3	2	8
7	0	2	1	4	0	7

8	1	1	6	8	1	17
9	0	2	2	5	0	9
10	1	0	4	7	3	15
11	1	0	3	4	2	10
12	0	1	3	8	0	12
13	0	1	1	2	1	5
14	1	0	0	9	1	11
15	1	0	4	3	1	9
16	1	2	0	2	1	6
17	1	0	1	5	3	10
18	1	1	1	11	2	16



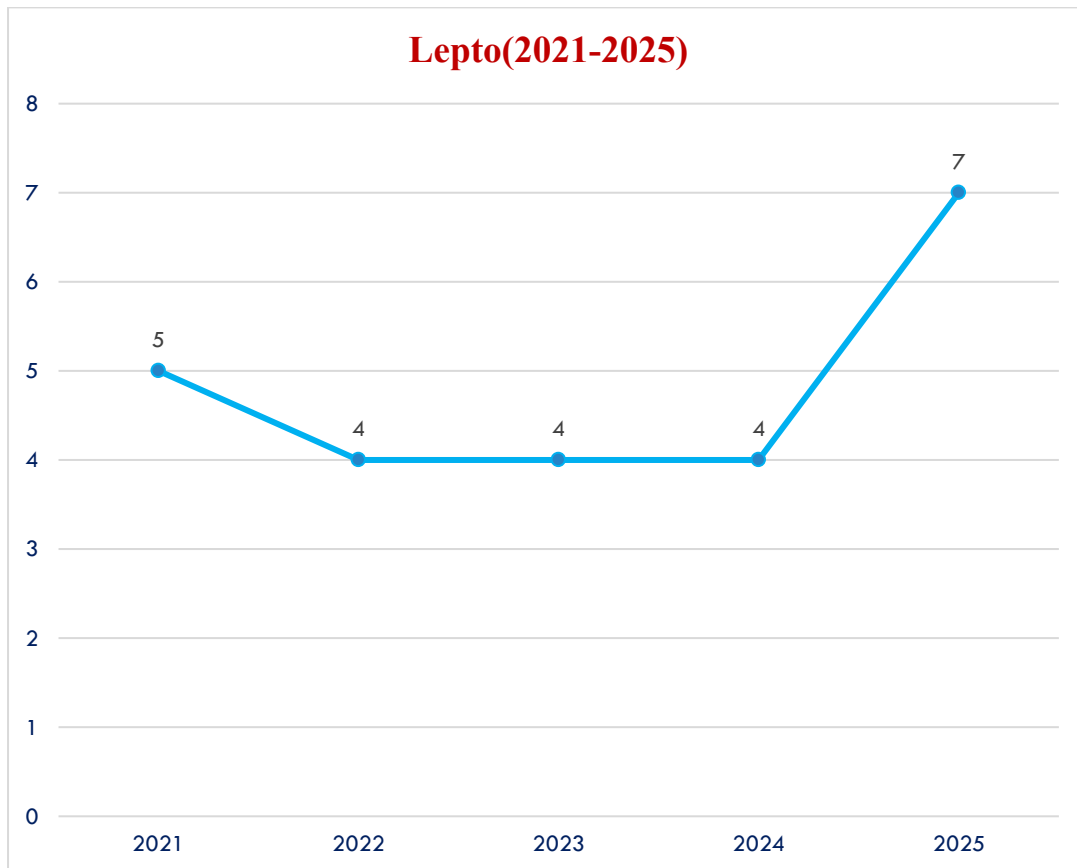
LEPTOSPIROSIS

Leptospirosis cases are closely linked to monsoon rains, flooding, and occupational exposure, particularly in low-lying and waterlogged areas.

Peak: June - August

Leptospirosis – Ward-wise Yearly Distribution (2021–2025)

Ward	Leptospirosis – Ward-wise Yearly Distribution					
	2021	2022	2023	2024	2025	Total
1	0	01	0	0	0	1
2	0	0	01	0	1	2
3	2	0	0	01		3
4	0	0	0	0	0	0
5	1	1	0	1	0	3
6	0	1	0	0	0	1
7	0	0	2	0	0	2
8	0	1	0	0	0	1
9	0	0	0	0	0	0
10	0	0	0	2	0	2
11	1	0	0	0	0	1
12	1	0	0	0	2	3
13	0	0	0	0	0	0
14	0	0	0	0	1	1
15	0	0	0	0	1	1
16	0	0	1	0	0	1
17	0	0	0	0	0	0
18	0	0	0	0	2	2



VIRAL HEPATITIS - A

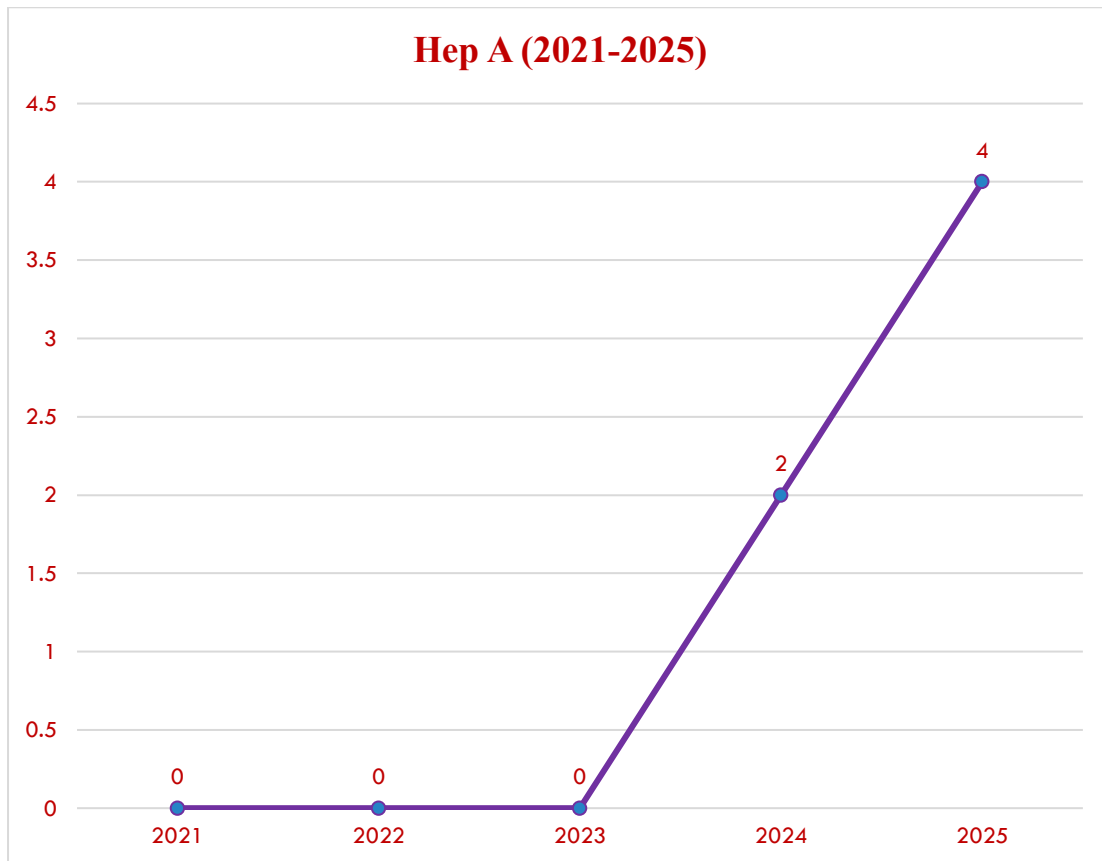
Hepatitis A cases are commonly associated with unsafe drinking water, food contamination, and breakdowns in sanitation, often presenting as clusters or outbreaks.

Peak: October - December

Hepatitis A – Ward-wise Yearly Distribution (2021–2025)

Ward	Hep A – Ward-wise Yearly Distribution					
	2021	2022	2023	2024	2025	Total
1	0	0	0	1	0	1
2	0	0	0	0	0	0
3	0	0	0	1	0	1
4	0	0	0	0	1	1
5	0	0	0	0	0	0
6	0	0	0	0	1	1
7	0	0	0	0	0	0
8	0	0	0	0	1	1
9	0	0	0	00	0	0

10	0	0	0	00	0	0
11	0	0	0	0	0	0
12	0	0	0	00	0	0
13	0	0	0	0	0	0
14	0	0	0	00	0	0
15	0	0	0	00	0	0
16	0	0	0	0	0	0
17	0	0	0	0	1	1
18	0	0	0	0	0	0



Transmission Trend- 2025

For effective management of public health issues, it is important to track the trend of disease transmission mode. It helps identify the population or place at high risk that can be used to predict outbreaks and implement targeted interventions as quickly as possible. Understanding these kinds of trends enables authorities to allocate resources efficiently and change the strategies adequately based on the trend that follows.

Mode of Transmission	No. of cases	No. of Deaths
Vector Borne Diseases	23	0
Water Borne Diseases	182	0
Air Borne Diseases	46	0
Blood Borne Diseases	0	0
Food Borne Diseases	0	0

Vector-Borne Disease

Disease	No. of Cases	No. of Deaths
Dengue	23	0
Malaria	0	0
Chikungunya	0	0

Water Borne Disease

Disease	No. of Cases	No. of Deaths
Cholera	0	0
Typhoid	0	0
Hep- A	4	0
Dysentery	0	0

Amoebiasis	0	0
E- Coli infections	0	0

Air Borne Disease

Disease	No. of Cases	No. of Deaths
Influenza	182	0
H1N1	0	0
TB	15	0
Chickenpox	46	0
Measles	0	0
Covid-19	0	0
Pertussis	0	0
Mumps	0	0

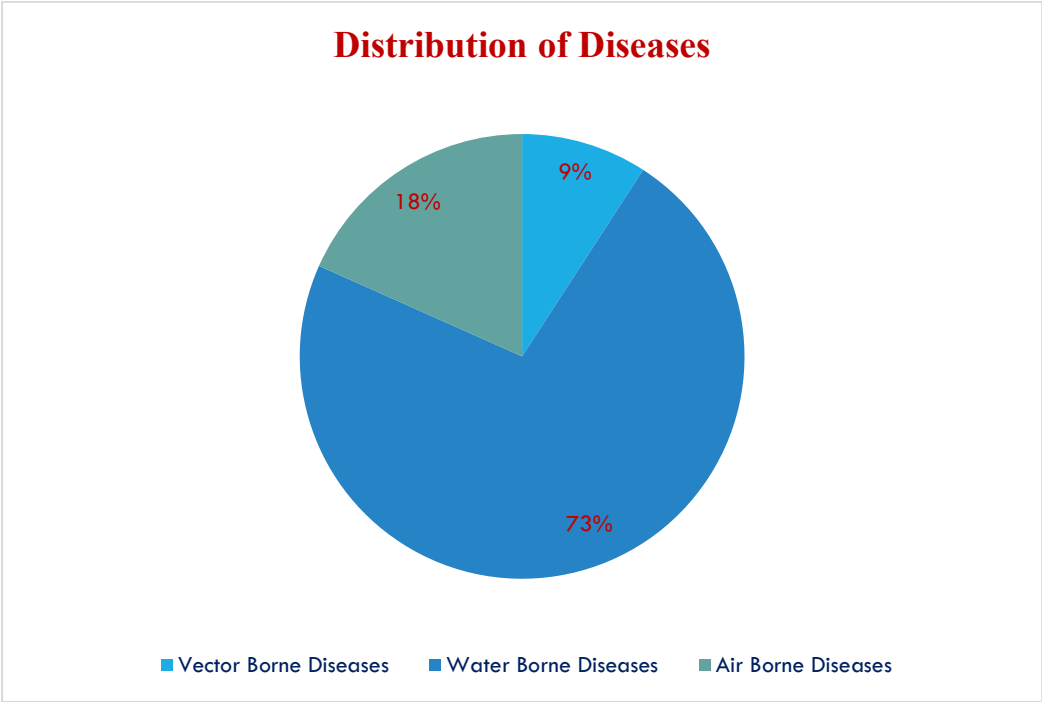
Blood-Borne Disease

Disease	No. of Cases	No. of Deaths
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AIDS	0	0
Hep- B	0	0
Hep- C	0	0

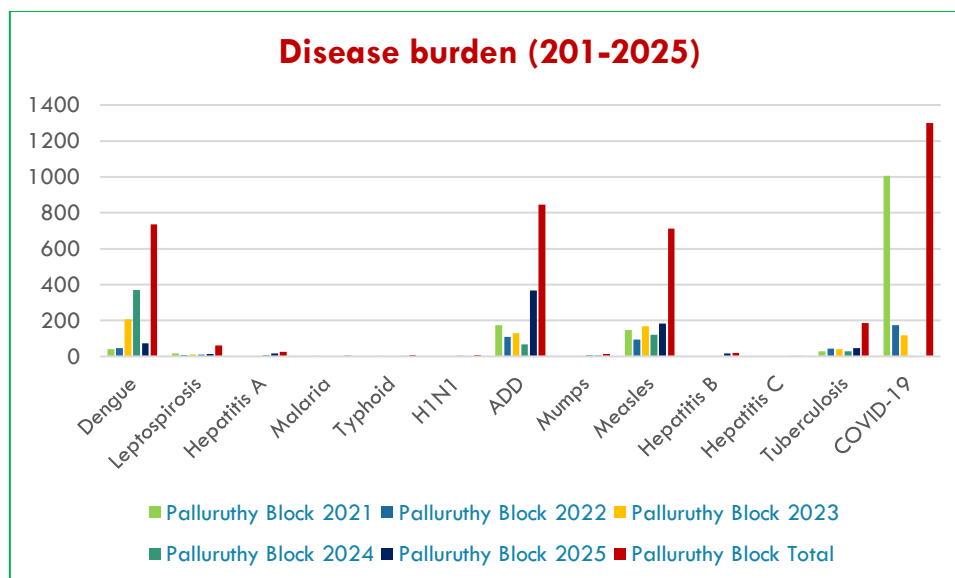
Zoonotic Disease

Disease	No. of Cases	No. of Deaths
Rabies	0	0
Leptospirosis	8	0
Avian influenza	0	0
West nile	0	
Anthrax	0	0
Nipah	0	0
Scrub Typhus	0	0



Palluruthy

Disease	Palluruthy Block					
	2021	2022	2023	2024	2025	Total
Dengue	41	46	206	369	73	735
Leptospirosis	17	7	11	11	15	61
Hepatitis A	1	0	0	7	18	26
Malaria	1	1	1	3	0	6
Typhoid	0	2	2	3	1	8
H1N1	0	0	3	5	0	8
ADD	173	109	130	68	366	846
Mumps	0	0	0	9	6	15
Measles	147	94	168	122	182	713
Hepatitis B	0	0	0	2	18	20
Hepatitis C	0	0	0	0	1	1
Tuberculosis	28	43	39	29	47	186
COVID-19	1007	174	117	2	0	1300



Transmission trend-2025

Transmission trend-2025		
	Palluruthy Block	
Mode of Transmission	No. of cases	No. of Deaths
Vector Borne Diseases	90	0
Water Borne Diseases	202	0
Air Borne Diseases	139	5
Blood Borne Diseases	2	0
Food Borne Diseases	76	0

Vector borne diseases

Palluruthy Block		
Disease	No. of Cases	No. of Deaths
Dengue	87	0
Malaria	0	0
Chikungunya	0	0

Water borne Diseases

Palluruthy Block		
Disease	No. of Cases	No. of Deaths
Cholera	0	0
Typhoid	1	0
Hep- A	23	0
Dysentery	0	0
Amoebiasis	0	0
E- Coli infections	0	0

Air borne Diseases

Palluruthy Block		
Disease	No. of Cases	No. of Deaths
Influenza	187	0
H1N1	1	0
TB	63	6
Chickenpox	121	0
Measles	0	0
Covid-19	0	0
Pertusis	0	0
Mumps	13	0

Blood borne Diseases		
	Palluruthy Block	
Disease	No. of Cases	No. of Deaths
AIDS	0	0
Hep- B	1	0
Hep- C	1	0

Zoonotic Diseases		
	Palluruthy Block	
Disease	No. of Cases	No. of Deaths
Leptospirosis	17	0

Preparedness and Response Protocol at LSG Level

This section describes the operational framework for the LSGI once a pandemic is declared. It explains how the LSGI and health system will move from routine data collection to active response, using a One Health approach.

Constitution of One Health Committee

The LSGD shall constitute a One Health Committee comprising the LSGI President, Medical Officers (Modern Medicine, AYUSH, and Veterinary), the Health Inspector, and the Veterinary Surgeon.

Objective: The One Health Committee coordinates human, animal, and environmental health to prevent and control pandemics.

Sl No	Name	Designation	Department/Institution	Role in Committee	Contact Number
1	K.J. Sebastian	Panchayat President	LSGD	Chairperson	9446868561
2	Dr. Asha Mol .C	Medical Officer (PHC/CHC)	Health Dept	Member Secretary	9446452419
3	Dr. Sreelakshmi	Veterinary Officer	Animal Husbandry	Member	
4	Dr. Arathi P.	Epidemiologist	Health Dept	Member	9447080280
5	SuviKumar	Health Inspector/PHN	Health Dept	Surveillance	9744400487
6	Anitha	ASHA Supervisor	Health Dept	Community link	9961652408
7	Jency	ICDS Supervisor	Social Welfare	Vulnerable groups	9061633211
8		Police Station Officer	Police Dept	Law & order	
9	All ward Members	Ward Councillor Representative	LSGD	Community coordination	

10	Judy	Kudumbashree CDO	Kudumbashree	Community mobilisation	8848686559
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Key Responsibilities:

- Review disease surveillance data (human + animal)
- Conduct ward-wise risk assessment and vulnerability mapping
- Approve quarantine/isolation centre locations
- Coordinate with district for resources (PPE, oxygen, ambulances)
- Periodically review health system surge capacity, including beds, oxygen, human resources, and ambulances.
- Approve and monitor risk communication and community engagement strategies, including rumour management.
- Ensure protection and service continuity for vulnerable groups (elderly, persons with disabilities, dialysis patients, coastal populations).
- Conduct quarterly mock drills
- Monitor equity measures for vulnerable groups

Meeting Schedule:

- Quarterly (normal times) | Weekly (outbreak alert) | Daily (pandemic phase)

Pandemic Response Workforce

To ensure a coordinated and timely response during a pandemic, a dedicated Pandemic Response Workforce shall be constituted at the LSG level. The workforce will function under the overall supervision of the One Health Committee and in close coordination with the health authorities. Team-based deployment will enable efficient surveillance, case management, quarantine and isolation management, logistics support, and risk communication. Each team shall have a clearly designated team leader, defined roles, and an identified pool of personnel to allow rapid activation, rotation of duties, and continuity of services during prolonged emergencies.

Total Response Workforce Available: 300 persons

Team Name	Composition	Key Responsibilities	Team Leader
Surveillance and Contact Tracing Team	HI, JHI, JPHN, ASHAs and Volunteers	Case detection, contact listing, home visits, reporting	HI
Case Management Team	Doctors, Nurses, MLSP, Palliative Nurses	Patient care & referral	DOCTOR
Quarantine & Isolation Team	LSGD staff, Volunteers	Facility management	JHI
Logistics & supply chain Team	LSGD staff, Storekeepers, Drivers 3	Supplies & transport [PPE, medicines, oxygen, transport, waste management]	Ward Member
Communication Team	Ward members, Kudumbashree, Youth clubs, AWW workers and other self help groups	IEC, community meetings, countering misinformation	M.O in charge
Transportation	Private buses, educational institutional buses		

All teams shall be activated immediately upon outbreak alert or pandemic declaration and shall report daily to the LSG Incident Commander/Medical Officer, with consolidated reporting to the Block PHC. Duty rosters and alternate personnel shall be maintained to ensure uninterrupted services during staff shortages or prolonged response periods. Team composition and numbers may be revised based on the magnitude of the outbreak and availability of human resources.

Activities and Measures before and during Pandemic

PHASE 1 - Alert / Preparation

During the alert phase, Palluruthy Block Panchayat will focus on strengthening readiness systems and minimizing risk before community transmission occurs.

- Review and update the Panchayat Pandemic Preparedness Plan and ward-level microplans.
- Intensify surveillance for fever, respiratory illnesses, diarrhoeal diseases, and unusual health events, especially in flood-prone and densely populated areas.
- Conduct rapid risk assessment of vulnerable populations, including elderly persons, individuals with comorbidities, and socially disadvantaged households.
- Ensure functional readiness of Primary Health Centre, sub-centres, and referral linkages with higher institutions.
- Verify availability of essential supplies such as PPE, masks, disinfectants, medicines, and emergency equipment.
- Strengthen water quality monitoring and sanitation measures, particularly in areas vulnerable to water contamination.
- Conduct interdepartmental coordination meetings involving Health, Veterinary, Sanitation, Education, and Disaster Management teams.
- Initiate public awareness campaigns on hygiene practices, early symptom reporting, and responsible health-seeking behaviour.
- Orient Rapid Response Teams and frontline workers regarding case definitions, reporting protocols, and infection prevention measures.

Activate One Health Committee

Immediately activate the One Health Committee at the LSG level. Convene an emergency meeting to review risk assessment, roles, and preparedness. Ensure coordination between Health, Veterinary, Agriculture, Local Self Government, and allied departments.

Prepare and circulate a contact directory of all committee members and emergency services.

Ensure documentation of decisions and action points with timelines.

Escalation hierarchy to be finalised (LSG to Institution to Block to District).

➤ Surveillance and Reporting

1. Enhanced syndromic surveillance:

Objective: To ensure early detection, timely reporting, and response to potential outbreaks through enhanced facility-, community-, and event-based surveillance .

The LSGD shall initiate will implement strengthened syndromic surveillance to ensure early detection of abnormal disease patterns and rapid response. Daily monitoring of priority syndromes such as acute febrile illness, influenza-like illness (ILI), severe acute respiratory infection (SARI), acute diarrhoeal diseases, vector-borne illnesses, and unexplained clusters will be carried out. Trend analysis at ward level will help identify deviations from baseline patterns, particularly during monsoon and flood-prone periods

2. Data sources for surveillance:

Surveillance data will be collected and consolidated from multiple sources to ensure comprehensive monitoring:

- Primary Health Centre and Sub-centres (OP/IP registers, laboratory reports)
- Private clinics and hospitals within the Panchayat
- ASHA and JPHN household visit reports
- Anganwadi centres and school absenteeism records
- Laboratory notifications and notifiable disease reports
- Water quality testing reports
- Veterinary and Animal Husbandry Department records

All data will be reviewed regularly by the Medical Officer and Health Inspector for early signal detection.

3. Event-based triggers (to be monitored and reported):

- School absenteeism above the usual pattern (to be monitored through the headmaster/PTA nodal person)
- Sudden increase in pharmacy sales of fever/cough/cold medicines
- Workplace illness clusters (multiple staff reporting similar symptoms within a short period)
- Community complaints regarding contaminated water sources
- Sudden spike in vector density or mosquito breeding
- Media or community alerts regarding suspected outbreak

Such events will be verified within 24 hours and escalated as per SOP.

4. Zoonotic and animal health surveillance

- LSGD shall review reports of unusual animal deaths or suspected outbreaks in animals in coordination with the Veterinary Officer.
- Any unusual mortality in poultry, pigs, cattle, companion animals, or wild birds/mammals shall be notified within 24 hours to the Veterinary Officer and One Health Committee for joint investigation

5. Logistics and Stock Preparedness

- Identify and empanel local vendors and define emergency procurement mechanisms in accordance with existing LSGD and Health Department norms.
- Prepare and maintain an essential logistics checklist covering medical supplies, consumables, and support equipment. Pre-identify secure storage locations for emergency stocks and ensure maintenance of stock registers with regular updating.
- Finalise emergency transport arrangements, including availability of vehicles and identified drivers for rapid deployment during alerts.
- Designate a Nodal Officer for Logistics to enable prompt decision-making, coordination, and communication during emergencies.
- Conduct rapid stock verification and ensure availability of minimum buffer stock, including:
 - PPE kits 10 numbers
 - Pulse oximeters – 5 numbers
 - Hand sanitizers – 5 litres
 - Masks, gloves, disinfectants – adequate quantity

Identify critical gaps in logistics and immediately communicate requirements to the Block and District authorities for timely replenishment and support. Monitor expiry dates and stock rotation.

Identification of Quarantine and Isolation Facilities

- Identify and list suitable buildings for quarantine and isolation (schools, hostels, community halls, etc.).
- Categorise cases as per the severity and allocate to appropriate facilities (for instance, severe cases to classrooms, mild cases to an assembly hall in case of a school).
- Facility readiness checklist needed (beds, toilets, ventilation) etc.
- Find an alternate site if the primary sites are not available or not in use.
- Identify facility managers and support staff

Prepare basic SOPs for:

- Admission and discharge
- Food, water, sanitation
- Infection prevention and waste disposal

Ensure availability of basic amenities: water, sanitation, electricity, ventilation, and waste disposal. Prepare a rapid activation plan for these facilities if case numbers increase.

Risk Communication and Community Preparedness

- Disseminate early warning messages on symptoms, preventive measures, and reporting mechanisms. Display IEC materials both in English and the local language in public places and ensure ward-level awareness.
- Sensitize elected representatives and community leaders on preparedness measures.
- Establish a rumour tracking and misinformation response mechanism to identify, verify, and promptly counter false or misleading information.
- Engage trusted local persons (ward members, ASHA workers, religious leaders, teachers, community volunteers) to communicate official public health messages and reinforce correct practices.

Develop and deploy targeted IEC materials for:

- Schools and educational institutions
- Markets and commercial areas
- Work sites and labour settings

Conduct community sensitization meetings at the ward level to promote preventive behaviors, address concerns, and strengthen community participation in preparedness and response.

Protection of Vulnerable Groups

Vulnerable populations require priority protection through targeted line-listing, service continuity, and delivery mechanisms.

- Prepare and regularly update line-lists of vulnerable populations, including:
 - Elderly persons living alone
 - Persons with disabilities
 - Pregnant women
 - Migrant workers
 - Dialysis patients

Clinical Dependency Mapping

Develop ward-wise dependency and vulnerability maps to identify households requiring regular support during emergencies. Ensure continuity of essential health services for vulnerable groups, including

- Dialysis services (facility mapping, transport arrangements, and scheduling)
- Continuity of treatment for TB, HIV, and other chronic conditions requiring uninterrupted medication
- Mental health and psychosocial support services
- Establish **delivery mechanisms** for food, essential commodities, and medicines to vulnerable households through coordinated action involving ASHAs, JPHNs, Kudumbashree, volunteers, and local administration.

PHASE 2 - Active Response

1. Case Identification and Contact Tracing

Case detection and contact tracing activities will be carried out in coordination with the Health authorities, following disease-specific SOPs and IDSP guidelines.

Field Staff Involved

Health Inspector (HI)

Junior Health Inspector (JHI)

Junior Public Health Nurse (JPHN)

ASHAs and ASHA Supervisors

Ward-level volunteers and Kudumbashree members (as required)

2. Screening Checkpoints

Screening checkpoints at high-traffic locations (transport hubs, markets, religious gatherings) for early detection of symptomatic travellers and crowd screening during outbreaks. Potential locations include bus stands, market entry points, and boat jetties, based on local context and risk assessment.

Screening activities will be carried out by trained personnel such as ASHAs, ward members, and volunteers, with support from Health Department staff. Necessary equipment, including non-contact thermometers and appropriate PPE, shall be ensured prior to activation.

Location	Type (Bus stand/Jetty/Market/Railway)	Staff Deployed (ASHAs/Volunteers)	Screening Method	Reporting authority
Bus stand	Transport hub	One JHI One ASHA One health Mentors	1.Swab Collection. 2. Blood smears collection (RDT) 3.Thermal Scanners	Surveillance Nodal Officer in control room
Market entry	Market	One JHI One ASHA Male health volunteers	1.Swab Collection. 2. Blood smears collection (RDT) 3.Thermal Scanners	Surveillance Nodal Officer in control room
Boat jetty	Water transport	One JHI One ASHA Male health volunteers	1.Swab Collection. 2. Blood smears collection (RDT) 3.Thermal Scanners	Surveillance Nodal Officer in control room

Standard Screening Protocol

1. TEMPERATURE CHECK (Non-contact)	2. VISUAL SYMPTOMS (Cough/Fever/Breathless)	3. TRAVEL HISTORY (Last 14 days)
↓	↓	↓
4. QUICK RISK ASSESSMENT High Risk → Test/Quarantine Suspect → PHC Referral	5. ACTION TAKEN Normal → Allowed IEC + Mask provided	

The screening protocol shall include temperature screening, observation for visible symptoms, and inquiry regarding recent travel or exposure history. Individuals identified as suspects during screening shall be immediately referred to the nearest PHC/FHC for further evaluation, testing, and appropriate action as per prevailing guidelines.

3. Pandemic Control Room

The Pandemic Control Room (PCR) serves as the central nerve center for real-time coordination, data aggregation, decision support, and communication during outbreaks. It consolidates information from all LSGD teams, health facilities and community sources to enable rapid response decisions.

Control Room Infrastructure and Location

Primary Location: Palluruthy Block Panchayath Office.

Backup Location: Palluruthy Block Panchayath Office.

Control Room Framework

The PCR is organized into seven functional pillars to ensure no aspect of the response is overlooked:

1. Rapid Response Team (RRT)

- Provides immediate intervention during emergencies, clusters, and field alerts.
- Coordinates urgent actions such as case investigation, contact tracing, isolation, and inter-facility referrals.

2. Data Management & Analytics Team

- Collects, validates, and manages key health system indicators (cases, tests, beds, HR, supplies).
- Analyzes data trends, generates projections, and supports evidence-based decision-making for local authorities.

3. Human Resource Deployment Team

- Allocates healthcare staff efficiently based on workload and need
- Ensures adequate and equitable workforce distribution across facilities

4. Laboratory Surveillance Team

- Oversees diagnostic testing coordination, sample transport, and timely reporting of results.
- Monitors lab indicators (testing volume, positivity rate, turnaround time) for early detection of outbreaks

5. Vaccination Cell (If Required)

- Plans and executes vaccination campaigns, including micro-planning and session scheduling.
- Tracks coverage, identifies gaps, and coordinates corrective actions with field teams and outreach services.

6. Infrastructure & Patient Occupancy Team

- Monitors facility capacity, earmarked beds, oxygen and critical care resources across all linked facilities.
- Ensures optimal patient distribution and referral management using updated bed-status and resource data.
- BMW

7. Communication team

8. Logistics and supply chain

9. Transportation (interfacility & emergency transport)

10. Media surveillance Call centre

11. Management of the deceased

12. Intersectoral coordination and convergence

Key Control Room Team

The Control Room Team coordinates all pandemic response activities within the LSGD and serves as the single command and communication hub during activation. It integrates information, field actions, logistics, and policy execution across all participating departments and health facilities.

Role	Name	Designation	Contact Number	Responsibility
In-charge/Nodal Officer	Dr. Asha Mol C	Block MO in Charge	9446452419	Overall coordination, decision-making, and reporting to the District level.
Data Entry & Technical Support	Shyamili	Data manager	73062886769	Managing the line list, updating dashboards, and tracking testing results.
Communication Officer	Suvi Kumar	HI	9072220487	Handling the public helpline, coordinating ambulance dispatch, and contact tracing calls.
Logistics Coordinator	Jiffin	Driver	6282431749	

SOP for alert escalation/trigger point with mapping of responsibilities.

1. Purpose

To define a structured alert and escalation protocol for early identification, reporting, and coordinated response to public health threats in Gothuruth LSGD.

A. Trigger Points for Escalation

Escalation shall be initiated under the following conditions: Contact details of the Control Room shall be widely communicated to field staff and stakeholders during activation.

Daily Monitoring Indicators

To ensure timely decision-making and effective response, the following key indicators shall be monitored and updated on a daily basis by the Pandemic Control Room:

Epidemiological Indicators:

New cases reported today, Total active cases, Test Positivity Rate (TPR), Case Fatality Rate (CFR)

Surveillance Indicators:

Persons under home quarantine, High-risk contacts identified, Fever, ILI, SARI or other symptoms (syndromic surges), Travellers (symptomatic or high-risk arrivals), Animal husbandry surveillance (zoonotic alerts, unusual animal deaths, poultry/bird flu signals), Mortality surveillance (excess deaths, unexplained fatalities, verbal autopsy reports)

Logistics and Infrastructure Indicators:

Hospital / CFLTC beds occupied, Oxygen cylinders/concentrators available, Ambulances on standby

Alert Findings

The following table outlines category-specific **trigger points (red flags)** from surveillance indicators and corresponding immediate actions for the Pandemic Control Room. These enable rapid response to alert findings like testing anomalies, positive cases exceeding thresholds, clusters, and WGS reports.

Category	Trigger Pophint (Red Flag)	Immediate Action
Clusters	Geographical or facility-based: 5+ cases linked to one location (office, school, street).	Declare a micro-containment zone; perimeter control and active case finding.
Testing	Sudden drop in testing volume / delay in reporting / unusual testing trends	Review the sample collection process, address lab bottlenecks, deploy additional testing teams, and notify the District Lab.
Lab	Test Positivity rate increases	Increase testing sites in that ward.
Hospital	>80% Oxygen bed occupancy	Activate backup/CFLTC beds.
Travel	Cluster of cases from a single flight/train or high-risk arrival group.	Trace all passengers in adjacent seats; implement mandatory institutional quarantine.
Animal	Mass poultry/wildlife death or unusual sickness	Notify Animal Husbandry, sample the area, and dispatch RRT for environmental sampling and zoonotic check.
Mortality	Sudden spike in home deaths or brought-in-dead (BID) cases	Audit the deaths and Active Case Search drive
Additional investigations like Whole Genome Sequencing (WGS)	Detection of a Variant of Concern (VOC) or Variant of Interest (VOI)	Implement strict micro-containment; update clinical protocols to match variant severity.

Communication of Public Health Information

A Community Communication Hub shall be established to ensure timely, accurate, and consistent dissemination of information during a pandemic. The Hub will function under the coordination of Nodal officers of the control room and act as the nodal point for public communication, risk messaging, and community engagement. It will support dissemination of official advisories, promote preventive behaviors, address rumors and misinformation, and ensure that messages reach all sections of the population through trusted local channels and leaders.

Key communicators

All	Channel	Responsible Person	Contact
	Ward-level announcements	K V Sabu	9447603084
	Social media	Tessy	8281493307
	Local Cable TV/Radio	Merry Jinsa	8606793482

messages disseminated through the Hub shall align with advisories issued by the Health Department and District authorities.

Community leaders shall be sensitized to support behavior change, reduce stigma, and counter misinformation.

Special efforts shall be made to reach vulnerable and hard-to-reach populations using locally appropriate communication methods.

Rumor Tracking: A designated volunteer will monitor local social media/WhatsApp groups daily to identify misinformation and issue official clarifications via the Communication Hub.

Coordination with District/State Authorities & Other Organisations

Effective coordination with Block, District, and State authorities is essential to ensure timely reporting, technical guidance, and uninterrupted supply of essential resources during a pandemic. The LSG shall establish clear communication channels, designate responsible officers, and adhere to prescribed reporting timelines to support coordinated public health action and efficient resource mobilisation.

Key Details:

Nodal Officer for Reporting:

Contact Number:

Reporting Schedule and Protocols:

To Whom	What to Report	Frequency	Nodal Person
Block PHC	Complete Situation Report (Cases, Quarantine, Beds, Screening, Deaths)	Daily	MO in Charge
District IDSP Unit	Outbreaks/Clusters/ Unusual Events (>5 cases same ward)	Daily	Epidemiologist
Veterinary Officer	Animal health events/Zoonotic alerts	Daily	Veterinary Surgeon
State Cell	Zoonotic cross-sector events	Daily	Veterinary Surgeon

Supply Chain Coordination

The LSG shall coordinate closely with Block, District, and State authorities (KMSCL) to ensure uninterrupted availability of essential goods, medical supplies, and logistics during a pandemic. Supply requirements shall be assessed regularly based on case load and communicated promptly to the appropriate authorities for timely replenishment.

Key Points:

Maintain updated contact details of District and Block nodal officers for health logistics, oxygen supply, ambulances, and essential medicines.

Submit timely indent requests for PPE, testing kits, medicines, oxygen, and other critical supplies through prescribed channels.

Monitor stock levels at LSGD facilities, quarantine/isolation centres, and field teams through daily stock registers and dispensing logs to prevent shortages.

Coordinate with District authorities, Karunya/Neethi medical shops, and local purchase committees for funds allocation and emergency procurement.

Ensure regular monitoring of dispensing registers at all facilities to track usage, expiry, and pilferage—shortages being a perennial issue requiring proactive weekly audits.

Activate surge procurement protocols during high caseloads, leveraging local purchase powers under LSGD funds alongside state supplies.

Resource Inventory and Contacts

Resource Category	Source (District/State/Private)	Contact
PPE Kits/Masks/Gloves	KMSCL	04842555009 9496005400
PPE Kits/Masks/Gloves	Local Vendors	
Oxygen Cylinders/Concentrators	KMSCL	04842555009 9496005400
Medicines/Antivirals	KMSCL	04842555009 9496005400
Medicines/Antivirals	Neethi Shops	9496005400
Test Kits (RTPCR/Rapid)	KMSCL	04842555009 9496005400

Collaboration with NGOs, PPP, and CSR

To augment government efforts during a pandemic, the LSG shall collaborate with NGOs, voluntary organisations, and private sector partners through public–private partnerships and Corporate Social Responsibility (CSR) initiatives, in coordination with District authorities.

Key Points:

Engage NGOs and community-based organisations for community outreach, awareness, and support to vulnerable populations.

Leverage CSR support for procurement of medical equipment, PPE, oxygen concentrators, food kits, and sanitation materials, as permitted.

Ensure all collaborations align with government guidelines and are routed through approved administrative and financial procedures.

Maintain transparency and documentation for all external support received and utilised.

Interdepartmental Coordination

Coordination among departments during a pandemic shall be ensured through regular review meetings convened by the LSGD President. These meetings will provide a structured platform for sharing situational updates, assessing resource availability, resolving operational gaps, and taking joint decisions to ensure a coordinated and timely response.

Department	Representative	Key Role	Contact
Health (PHC)	Staff Nurse :	Case management	9867776566
Veterinary	Veterinary Surgeon:	Animal surveillance	9447292635
ICDS	Supervisor: Sindhu	Nutrition support	6345276512
Education	Head Teacher: St. Peters	School coordination	6782638628
Police		Containment enforcement	04842241000
Water Authority		Water supply	
LSGD Engineering		Quarantine infrastructure	

PHASE 3 - Surge Capacity

Phase 3 is activated when there is a rapid increase in cases, high test positivity rates, or when existing health facilities and quarantine arrangements approach saturation. The focus of this phase is to expand isolation capacity, augment clinical care services, and mobilise additional resources through district and state support mechanisms.

Conversion of Community Facilities

To manage increased case load, the LSGD shall activate additional isolation facilities by repurposing identified community infrastructure such as community halls, auditoriums, schools, hostels, or other suitable buildings.

Name of facility	Facility Type	No. of Buildings	Ward	Surge Capacity (Beds)	Nodal Person
Auditorims	Auditorium	19	1,2,5,6,9, 10,12,13, 17	1000	9447080280
Schools	School	10	7,8,9,10, 11,12	2000	907123456
Anganwadies	Single rooms	31	1,4,6,7,8, 17,19	150	94462423876
Convension centers	Auditorim	2	4,7	200	8281423265

Recovery and rehabilitation phase

Recovery

- Damage & impact assessment
- Restoration of health services
- Rehabilitation of affected population
- Psychosocial & mental health support
- Disease surveillance during recovery phase
- Environmental cleanup & sanitation
- Livelihood restoration
- Community engagement & confidence building
- Documentation & after-action review
- Lessons learned & best practices
- Health system strengthening
- Policy revision & preparedness enhancement
- Research
-

RECOMMENDATIONS

Strengthening Healthcare Infrastructure

Establish a primary health response unit within the Panchayat with trained staff.

Ensure availability of basic medical supplies (masks, sanitizers, PPE kits, oxygen cylinders).

Create tie-ups with nearby hospitals in Kumbalangi for emergency referral and transport.

2. Community Awareness & Education

Conduct regular awareness campaigns on hygiene, vaccination, and preventive measures.

Use local communication channels (community radio, WhatsApp groups, notice boards) to spread verified information.

Train volunteers to act as health ambassadors in each ward.

3. Emergency Response & Coordination

Form a Pandemic Preparedness Committee at Panchayat level including health workers, ward members, and NGOs.

Develop a clear action plan for lockdowns, quarantine, and distribution of essentials.

Maintain a database of vulnerable groups (elderly, differently-abled, chronically ill) for targeted support.

4. Supply Chain & Food Security

Identify and support local suppliers and farmers to ensure uninterrupted food supply.

Create community kitchens during emergencies to serve vulnerable populations.

Stockpile essential commodities in Panchayat-run outlets for crisis periods.

5. Digital Preparedness

Promote digital platforms for telemedicine consultations.

Use Panchayat's website/social media for real-time updates on health advisories.

Encourage online grievance redressal to reduce crowding in offices.

6. Training & Capacity Building

Organize mock drills for pandemic response in schools, offices, and public spaces.

Train Panchayat staff and volunteers in first aid, infection control, and crowd management.

Collaborate with NGOs and health departments for capacity-building workshops.

7. Long-Term Resilience

Integrate pandemic preparedness into the Panchayat Development Plan.

Allocate a dedicated budget for health emergencies.

Encourage community participation in planning and monitoring preparedness measures.

CONCLUSION

This Pandemic Preparedness Plan outlines a comprehensive, decentralised, and action-oriented framework for preparedness and response at the KumbalanghyLSGD level. Kumbalanghy Grama Panchayath can leverage its strong healthcare infrastructure and transport access to become a **model of rural pandemic preparedness**. By addressing water safety, environmental health, and specialist care gaps while tapping into government schemes and research partnerships, the Panchayath can transform vulnerabilities into resilience against future pandemics.

By adopting a One Health approach and strengthening coordination between the health system, local self-government institutions, veterinary services, and community networks, the LSGD aims to ensure early detection, rapid response, and effective containment of pandemics and public health emergencies.

The plan emphasises equity, community participation, and evidence-based decision-making to protect vulnerable populations and ensure uninterrupted access to essential services during crises. Regular updating, mock drills, and interdepartmental coordination will be critical to maintaining readiness and resilience.

This document shall serve as a living operational guide, to be activated during alerts and continuously improved based on evolving risks, lessons learnt, and guidance from higher authorities.

“Prepared Today, Protected Tomorrow.”

ANNEXURE

IMPORTANT PHONE NUMBERS

Phone numbers and particulars of persons responsible for providing guidance, assistance, and support for pandemic preparedness operations may be provided here in a manner that allows easy reference at a glance. The information recorded here could be exhibited elsewhere at the time of emergencies. LSG institutions shall give special attention to collect and record the above data of persons and institutions who/which are supposed to give technical and co-ordination support to reduce the impact of pandemic.

1.1. Details of Block / Grama panchayat/municipality/corporation wards

Name & Phone Number	Name of Division	Division in which Panchayath included	Division in which Ward included					Position
			1	2	3			
N.P Joy 9048191578	Kattiparambu	Chellanam	1	2	3			Member (ആരോഗ്യം)
Soosan Joseph 8547500434	Azhikkakam	Kumbalanghy	1	16	17	18	19	Vice President
Sheela Xavier 9995724761	Kumbalanghy	Kumbalanghy	2	3	4	5		Chairperson (ആരോഗ്യ സ്റ്റാൻഡിംഗ് കമ്മിറ്റി)
Afsal Nambyarath 9633839299	Cheppanam	kumbalam	2	3	4	5	6	President
Sherley George 9388052358/ 7306436169	Pazhangad	kumbalam	7	8	9	10		Member (ക്ഷേമം)
Prema Bharghavan 8089488701	Perumana	kumbalam	11	12	13	14	15	Member (ധനകാര്യം)

Sheela malattu 8547984955	Pazhangad	Kumbalanghy	6	7	8	9	10	Member (ആരോഗ്യം)
P.A Peter 9447475313	Aanjilithara	Kumbalanghy	11	12	13	14	15	Member (ധനകാര്യം)
Cletus Punnaikal 9744499857	Chellanam	Chellanam	15	16	17	18		Member (ക്ഷേമം)
Shaji Thoppil 9995778587	Maruvakkadau	Chellanam	13	14	19	20		Chairperson (വികസന സ്റ്റാൻഡിംഗ് കമ്മിറ്റി)
Jinu.k.Vincent 9746921249/ 8129131249	Kandakkadavu	Chellanam	11	12	21	22		Member (ധനകാര്യം)
Salim P.K 9946337807	Kannamaly	Chellanam	7	8	9	10		Member (വികസനം)
Jiji Babu 9947098022	Cheriyakadavu	Chellanam	4	5	6			Member (വികസനം)
Simi Jobby 9633839299	kumbalam	kumbalam	1	16	17	18	19	Chairperson (ക്ഷേമ സ്റ്റാൻഡിംഗ് കമ്മിറ്റി)

1.3. Important offices of grama panchayat/municipality/ corporation

Sl.No	Name of the office	Contact person	Contact number
1.	Village Office	Village Officer	9744988656
2.	Agriculture Office	Agriculture Officer	9539747271
3.	Animal Husbandry Office	Animal Husbandry Doctor	9496839449
4.	Police Station	Police Officer	04842241000
5.	BSNL Office	Officer	9495282433
6.	Block Office	Officer	04842232162
7.	KSEB Office	Officer	04842248899
8.	Fisheries Office	Officer	9496008775
9.	Fire and Rescue	Officer	04842225555

1.4. Health Services

Sl. No	Name of the hospital/institution	Location	Phone number
1.	Government hospitals/PHC	14	
2.	Private hospitals	0	
3.	Clinical laboratories	14	
4.	Chemist/pharmacy	14	
5.	Blood donors		

1.5. Veterinary Services

Sl.No	Name of the Clinic	Name of the Surgeon/Doctor	Place/location	Phone number
1	Govt.Veterinary Hospital	Dr. Sreelakshmi	3	9496839449

1.6. Helpline numbers

Helpline	Phone number
Police	04842241000
Fire and Rescue	04842225555
KSEB	04842248899

1.7. Public and Private Schools Contact details

S.No	Name of School	Institution type	Phone number
1	St.Peters HS	Aided	9142478870
2	St.Peters HSS	Aided	9446419474
3	St.George LPS	Aided	9995420871
4	St.George UPS	Aided	9446437605
5	OLF UP	Aided	9995835688
6	OLF HS	Aided	9947478444
7	OLF Honey HSS	Aided	9497200098
8	Govt.UPS kumbalanghy	Govt	8547857867
9	St.Peters HS	Aided	9446419474
10	St. ANNs Public School	Pvt	9612550342

1.9. Anganwadi Contact Details

Aw.No	Ward	Est.Capacity (Persons)	Contact details
5	4	5	9995184926
64	4	6	9846862088
23	17	5	9188191562
25	17	5	8075280206
22	15	5	9349938856
19	15	6	9947933386
1	1	7	8606898742
2	1	5	9562129113
3	2	5	9645111262
4	2	6	7736887484
6	3	5	7306800848
7	5	7	9847067012
56	5	6	9562264130
8	6	5	9746835734
17	13	6	9947320810
9	6	5	9746835734
18	14	7	9633916356
24	16	6	9846306833
26	16	8	8089399414
16		5	9496020968
21	5	5	9633332578
27	11	6	8078855497
57		6	9744741359
14	4	5	8129588316
20	14	6	9645230775
15		7	9746482978
10		7	7012825989
11		7	8129842658
12		6	7736487262
13	1	7	9746479456
14	1	6	9048449292

1.12. Information regarding resources

Means of transportation	Name of Owner	Phone Number
Ambulances	Jiffin	6282431749
JCB	Rajan	9765634624
Boat	Simon	8281234251
Taxi service	Suresh	8560342325

Annexure 1: LSG Baseline Data Collection Format

A. Baseline data

Table 2: Background of LSGD	
Description	Details
Name of LSGI	Palluruthy block panchayath
Type (GP/Municipality / Corporation etc.)	Block Panchayath
Block	Palluruthy
District	Ernakulam
Number of wards	19
Total area (sq. km)	15.21sq.km
Population (Projected)	31370
Population density	1000/sq km
Terrain (coastal/low-lying/backwaters/foothills, etc.)	Low lying/backwaters
Number of rivers passing through LSGI	1
Number of water bodies in the LSGI	9 (Lake & Ponds)
Number of educational institutions	10
Factories / small-scale industries	NIL
Flood-prone wards	19
Landslide-prone wards	NIL
Death Management and Disposal Facilities (crematorium, including electric)	4

Table 2: Background of LSGD

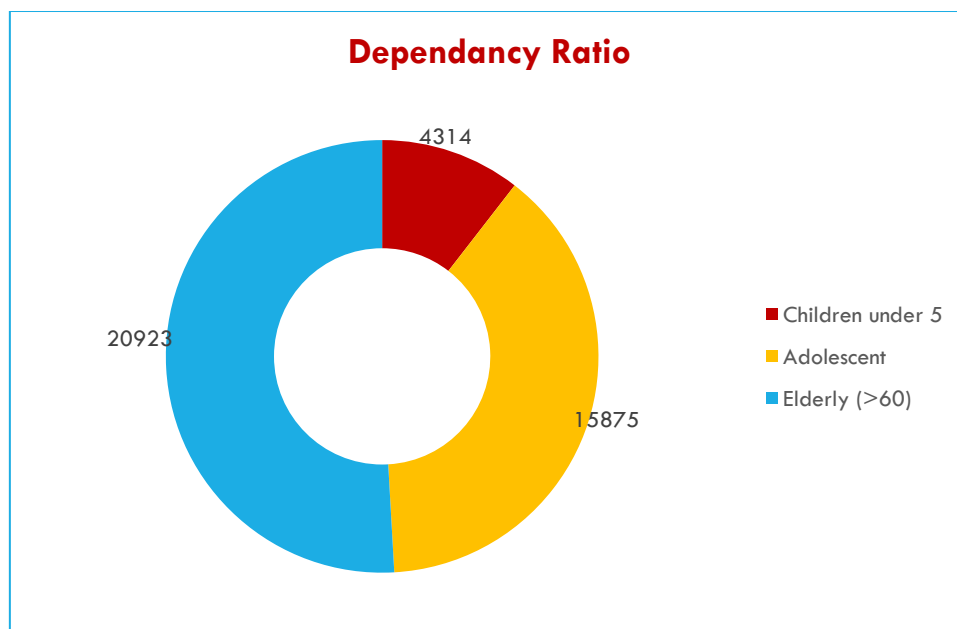
Description	Details
Auditoriums/Marriage halls/convention centres/community halls	19

B. Demography

Total population	31370
Male	15346
Female	16024
Transgender	0
Children under 5	1090
Adolescent	4320
Elderly (>60)	5670

SOCIAL/LIVELIHOOD VULNERABILITY

Previous EPEP family		73
BPL family		2910
Tribal communities		0
Migration	Immigrant	233
	Emigrant	272
Socio-economically deprived		73
Fisherfolk		546 Fisher man, 206 Allied workers
SC Community		1855
ST Community		NIL



C. Vulnerable Populations & Social Risks

Description	Details in numbers
Pregnant women	128
Lactating mothers	272
Bedbound patients	106
Patients under palliative care other than bedbound	54
Patients on Haemodialysis	26
Patients on CAPD	1
Cancer patients (currently on treatment)	123
Haemophilic patients	0
Mentally challenged	85
Differently abled	61
Diabetic patients	2708
Hypertensive patients	2871

Description	Details in numbers
TB patients	14

D. Health System & Service Readiness

Sl. No.	Indicator / Field	Baseline Data (Value / Description)	Source / Remarks
1	No. of health facilities in LSG (PHC/CHC/TH/DH/Private)	1	Baseline register
2	PHC/Family Health Centre details (name, location)	0	
3	Subcentres / Health & Wellness Centres (number)	6	
4	Private clinics / hospitals (number)	2	
5	Labs available (public/private)	4	
6	Availability of ambulance services (Yes/No, number)	1	
7	Availability of isolation/quarantine facilities (Yes/No, details)	Yes	
8	Cold chain facilities (Yes/No, details)	Yes	
9	Stockpile space available (Yes/No)	Yes	
10	PPE / mask / sanitizer availability plan (Yes/No)	Yes	
11	Surveillance staff available (JHI/JPHN/ASHA count)	Yes	
12	Existing emergency referral pathways (Yes/No)	Yes	

E. Points of Entry & Mobility

Sl. No.	Indicator / Field	Baseline (Value Description)	Data /	Source / Remarks
1	Bus stands / depots (number)	1		LSGD Baseline Register
2	Railway stations (number)	0		
3	Boat jetties / fishing harbours (number)	0		
4	Ports / airports nearby (specify distance)	0		
5	Major highways/roads passing through	1		
6	Border crossings (state/district)	0		
7	Major markets / weekly markets	1		
8	Tourism hubs / major event venues	0		
9	Schools/colleges with hostels (number)	0		
10	Factories / large workplaces (number)	0		

F. Water, Sanitation & Hygiene (WASH)

Sl. No.	Indicator / Field	Baseline (Value / Description)	Data /	Source / Remarks
1	Major drinking water sources (piped / wells / borewells / springs)	Piped		
2	No. of public wells	0		
3	No. of households with piped water connection	8049		
4	Water quality testing routine (Yes/No)	Yes		
5	Common contamination risks (flooding, salinity, industrial waste)	0		
6	Open defecation free status (Yes/No)	No		
7	Solid waste management system (Yes/No)	Yes		
8	Bio-medical waste disposal mechanism (Yes/No)	Yes		
9	No. of public toilets	1		
10	Handwashing stations in public places (Yes/No)	0		

G. Zoonotic Risks & One Health

Category	Item	Estimated Population	Wards
Animal Population	Livestock (Cattle/Goats/Buffalo)	324/246/5	1-19
	Pet Animals (Dogs/Cats)	879	1-19
	Stray Dog Population	56	1-19
	Pig Farms (Number of heads)	NIL	
	Small Units (Sheep / Goats – clustered)	246	1-19
Bird Population	Poultry Units (Birds)	2	
	Poultry- (FOWL)	1856	1-19
	Wild/Migratory Birds (Observed)	1	8,9
	Crow Mortality Events (Reported)	NIL	

H. Climate & Disaster Risks (Pandemic Amplifiers)

Risk Factor	High-Risk Wards	Key Locations	Risk Level (High/Med/Low)
Flood-prone areas	All wards		Medium
Water bodies/wetlands	1-19		Medium
Solid waste accumulation	Nil		
Animal waste disposal issues	4,15,6,5	Compression jn,Priyadarshani road	Medium
Rodent infestation zones	1-19		Low
Industrial effluent discharge	Nil		
Construction sites / abandoned buildings	1-19/0		Medium
Poor drainage/blocked canals	1, 3,14,15,16,10		Medium
Drinking water source contamination risk	2,10	Melthanam, Kumbalanghy South	Medium

I. Critical Infrastructure & Logistics

Sl. No.	Indicator / Field	Baseline (Value Description)	Data /	Source / Remarks
1	Schools (number)	10		
2	Anganwadis (number)	31		
3	Colleges (number)	0		
4	Community halls (number)	4		
5	Places of worship with large gatherings (number)	20		
6	Large markets / shopping areas (number)	0		

7	Warehouses / cold storages (number)	0	
8	Telecom/mobile network coverage gaps (Yes/No)	Yes	
9	Power outage frequency (high/medium/low)	Low	
10	Availability of generators in key facilities	Yes	

J. Risk Communication & Community Networks

Sl. No.	Indicator / Field	Baseline (Value / Description)	Data /	Source / Remarks
1	Ward-level rapid response teams (Yes/No)	Yes		
2	Jagratha samithis / committees active (Yes/No)	Yes		
3	Kudumbashree presence and strength (number of units)	Yes		
4	Volunteer network (number, coverage)	56(1/500)		
5	Community-based surveillance mechanisms (Yes/No)	Yes		
6	IEC dissemination channels (WhatsApp groups, community radio, PA systems)	Yes		
7	Rumour tracking mechanisms (Yes/No)	Yes		
8	Languages spoken / literacy considerations	Malayalam		
9	Vulnerable groups communication strategy available (Yes/No)	Yes		

K. Preparedness Planning & Governance

Sl. No.	Indicator / Field	Baseline (Value / Description)	Data /	Source / Remarks
1	LSG emergency plan available (Yes/No)	No		

2	Pandemic preparedness plan available (Yes/No)	No	
3	Incident Command System identified (Yes/No)	No	
4	Rapid procurement mechanism available (Yes/No)	No	
5	Emergency fund available (Yes/No, amount)	Yes	
6	Past outbreak response experience (Yes/No, details)	No	
7	Intersectoral coordination mechanism (Health, Police, LSG, Veterinary, Education)	Yes	
8	Mock drills conducted in last 12 months (Yes/No)	No	
9	Training coverage for staff/volunteers (Yes/No)	Yes	

L. Surveillance & Data Systems

Sl. No.	Indicator / Field	Baseline Data (Value / Description)	Source / Remarks
1	Digital reporting tools used (e.g., DHIS2, portals)	Yes	
2	Availability of line-listing format (Yes/No)	Yes	
3	Contact tracing team identified (Yes/No)	Yes	
4	Mapping of high-risk households available (Yes/No)	Yes	
5	Testing sample transport mechanism (Yes/No)	Yes	
6	Reporting timeline adherence (good/average/poor)	Yes	
7	Data sharing between departments (Yes/No)	Yes	
8	Availability of dashboard for monitoring (Yes/No)	Yes	

M. Additional Notes & Observations

Sl. No.	Indicator / Field	Baseline Data (Value / Description)	Source / Remarks
1	Key challenges perceived by LSG	No alternative routes	
2	Top 5 high-risk wards (reason)	All wards, flood	
3	Any unique local risks (industrial pollution, refugee camps, etc.)	No	
4	Recommendations for preparedness strengthening	Intersectoral meetings at regular intervals	