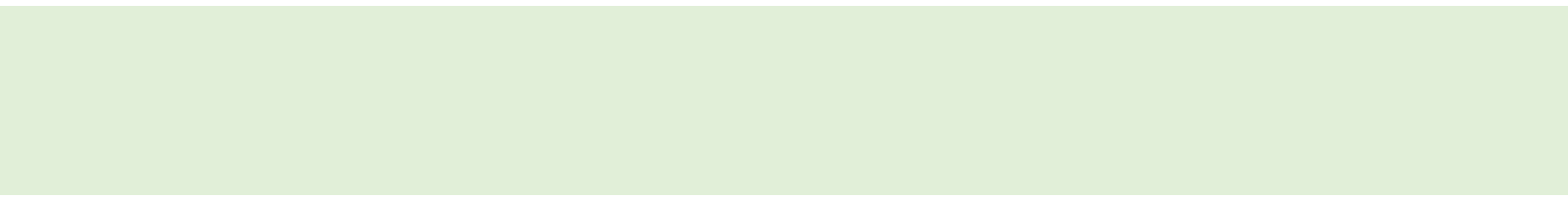


***PANDEMIC
PREPAREDNESS PLAN
KALAMASSERY
MUNICIPALITY***

PHC KALAMASSERY

kalamasseryphc@gmail.com





MR. JAMAL MANAKKADAN
CHAIRMAN
KALAMASSEY MUNICIPALITY

MESSAGE FROM CHAIRMAN

THE EXPERIENCE OF RECENT PUBLIC HEALTH EMERGENCIES HAS CLEARLY DEMONSTRATED THE IMPORTANCE OF PREPAREDNESS, COORDINATION, AND COMMUNITY PARTICIPATION IN SAFEGUARDING PUBLIC HEALTH. IN THIS CONTEXT, KALAMASSERY MUNICIPALITY HAS DEVELOPED A COMPREHENSIVE MUNICIPALITY LEVEL PANDEMIC PREPAREDNESS PLAN TO STRENGTHEN OUR READINESS FOR FUTURE OUTBREAKS AND PUBLIC HEALTH THREATS

THE PLAN OUTLINES STRATEGIES FOR SURVEILLANCE, EARLY WARNING, EMERGENCY RESPONSE, HEALTH CARE COORDINATION, RISK ASSESSMENTS, COMMUNITY PARTICIPATION AND CONTINUITY OF ESSENTIAL SERVICES. IT EMPHASISES INTER DEPARTMENTAL CONVERGENCE, COLLABORATION WITH HEALTH INSTITUTIONS, VOLUNTARY ORGANIZATIONS AND ACTIVE PARTICIPATION OF RESIDENTS TO ENSURE AN EFFECTIVE AND TIMELY RESPONSE DURING HEALTH EMERGENCIES

I SINCERLY APPRECIATE THE EFFORTS OF PHC KALAMASSERY STAFFS, UPHC STAFFS, WARD COMMITTEES, ASHA WORKERS AND ALL STAKEHOLDERS WHO CONTRIBUTED TO THE PREPARATION OF THIS DOCUMENT. THEIR DEDICATION REFLECTS OUR COLLECTIVE COMMITMENT TO BUILDING A SAFER AND HEALTHIER KALAMASSERY. AND ALSO MENTION TOGETHER WE CAN ENSURE THAT KALAMASSERY MUNICIPALITY REMAINS PREPARED, RESPONSIVE, AND RESILIENT IN THE FACE OF FUTURE PUBLIC HEALTH CHALLENGES



Mrs.Anju Manoj Mani
Health Standing Committee Chairperson
Kalamassery Municipality

MESSAGE FROM HEALTH STANDING COMMITTEE CHAIR PERSON

On behalf of the Health standing committee,Kalamssery municipality ,I exd my warm greetings to all health officials of Primary Health Centre Kalamassery and all other stakeholders involved in the preparation of Muncipal Pandemic Preparedness Plan.

The Covid 19 pandemic clearly demonstrated the importance of proactive planning, coordination action and community participation in protecting public health . Kalamssery being a rapidly urbanizing municipality with diverse population and significant industrial and institutional presence, recognize the need for a structured and locally relevant preparedness framework to effectively respond to future public health emergencies

I am confident that this plan will serve as a practical guide for timely response, risk reduction, and continuity of essential services during any future outbreak .Let us continue to work together to safeguard the health and wellbeing of every citizen of Kalamassery.

Best wishes for the successful implementation of this Plan



Dr. Anju Angel Alex
Medical Officer
PHC Kalamassery

MESSAGE BY MEDICAL OFFICER- PHC **KALAMASSERY**

With 46 wards and the confluence of Rural and Urban areas with varying kinds of communities and people from not just all over Kerala but also from all over the country, Kalamassery is not just an Industrial and Employment hub but also a centre for Education and Administrative departments.

This makes the Municipality very much the Pulse point of the District and easily prey to any communicable disease of public health importance. Our boons are our banes and the challenges are many. Yet, with multipronged approach and collective effort by the Local Self Government Department, the Health sector and the various other sectors keeping in concordance with the concept of One Health and Equitable distribution of health resources, we will continue to strive to keep our Kalamassery, a healthy Municipality.

EXECUTIVE SUMMARY

Pandemic Preparedness Plan – Kalamassery Municipality

Kalamassery Municipality, situated in Ernakulam District, is a major urban–industrial centre characterized by high population density, floating population, migrant workforce, educational institutions, and large-scale industrial establishments. These demographic and socio-economic factors increase the municipality's exposure and vulnerability to public health emergencies, particularly infectious disease outbreaks.

In alignment with the directives of the Government of Kerala, National Disaster Management Authority (NDMA), State Disaster Management Authority (KSDMA), and the Integrated Disease Surveillance Programme (IDSP), Kalamassery PHC has prepared this Pandemic Preparedness Plan to strengthen institutional readiness and ensure a coordinated, multi-sectoral response to pandemic threats.

The plan adopts an all-hazards, risk-informed approach, focusing on prevention, preparedness, response, and recovery. It establishes governance and coordination mechanisms through Municipal Incident Response Systems, ward-level committees, and inter-departmental task forces. Clear roles and responsibilities are defined for elected representatives, municipal officials, health functionaries, line departments, and community-based organizations.

Key components of the plan include strengthening disease surveillance and early warning systems, enhancing primary healthcare preparedness, ensuring availability of critical logistics and supplies, maintaining continuity of essential municipal services, and implementing effective risk communication strategies. Special emphasis is placed on protection of vulnerable groups, migrant populations, elderly persons, and persons with disabilities.

The plan integrates community participation through Kudumbashree networks, volunteers, resident associations, and civil society organizations, and provides for capacity building, mock drills, and periodic review. Coordination with district administration, health authorities, and emergency services is institutionalized to enable rapid decision-making and resource mobilization.

This Pandemic Preparedness Plan is envisaged as a dynamic document and shall be reviewed annually or as required based on emerging risks and operational experiences. Through this initiative, Kalamassery Municipality aims to build a resilient public health system, minimize morbidity and mortality, reduce socio-economic impacts, and ensure effective recovery in the event of future pandemics.

LIST OF ABBREVIATIONS

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

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INTRODUCTION

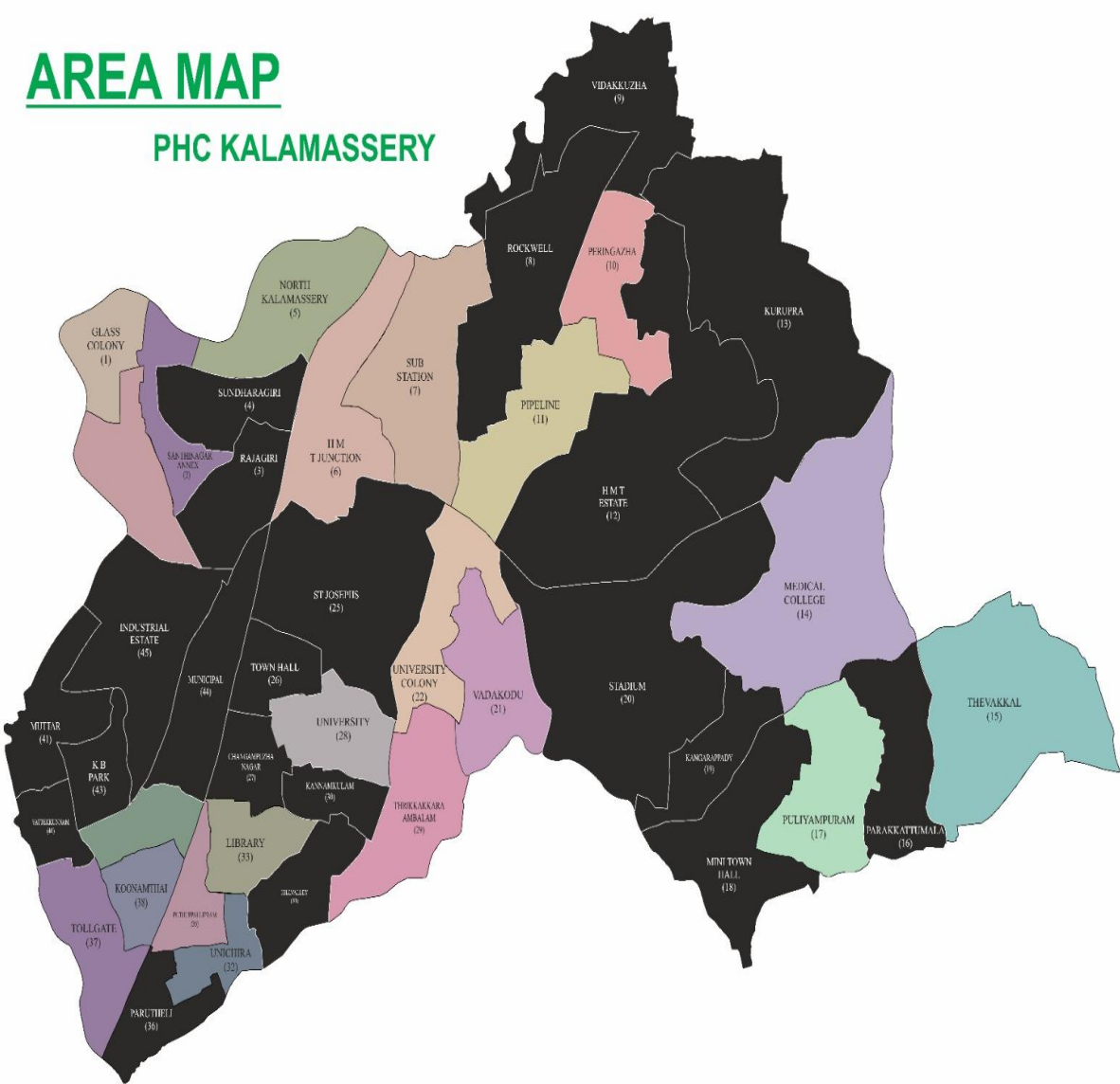
- **Background of the PPP**
- LSGD at a glance

LSGD AT A GLANCE

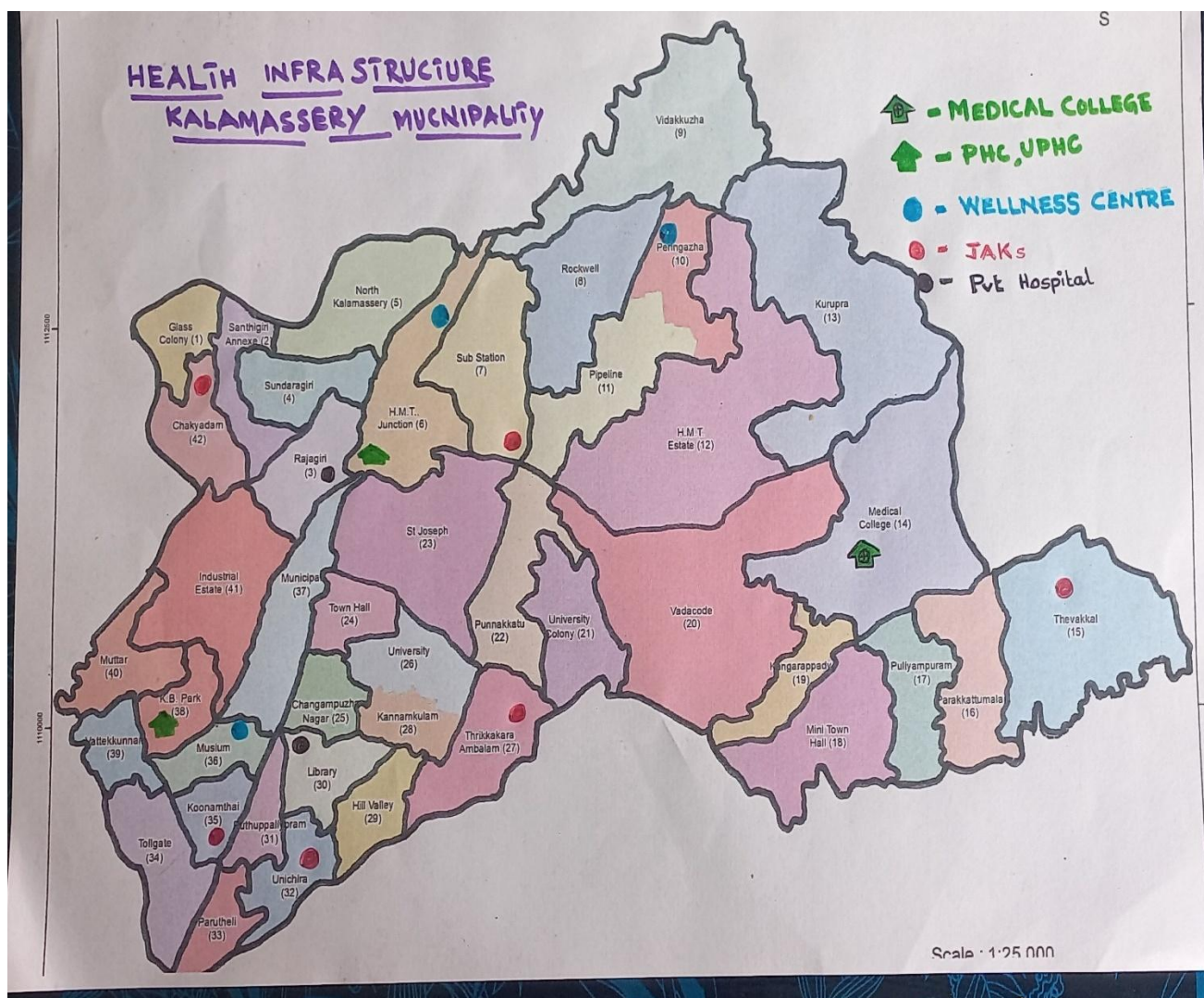
- Geographical boundaries with political map (based on latest delimitation)
- Baseline data
- Ward division -

Ward	Houses	Populati on	Migrants	Wells	Hot spots	Ed. Instituti ons	Hosp pvt/govt.
46	26817	108346	311	12716	7- DF 3- LEPTO	27	Pvt - 06 Govt - 13

AREA MAP OF KALAMASSERY MUNICIPALITY



HEALTH INFRA STRUCTURE MAP – KALAMASSEY MUNICIPALITY



GENERAL PROFILE OF KALAMASSERY MUNICIPALITY

Background of Kalamassery Municipality

As of the 2011 census, the population was ~70,776 with a high literacy rate (~96%), and a mix of age groups including children and a working-age population. The municipality comprises 46 administrative wards representing local communities for planning and service delivery.

Kalamassery is a major industrial hub in Kerala. It hosts the Kalamassery Development Industrial Estate (one of Kerala's earliest industrial estates) and many medium/large manufacturing units. Industries span fertilisers, auto components, tyres, engineering, chemicals, and more. Newer strategic investments such as logistics parks and processing parks are expanding local economic capacity. a densely employed industrial population requires targeted workplace health protocols, surveillance, and emergency health access routes.

Kalamassery includes educational and healthcare institutions like Government Medical College, Govt Primary health centre, Urban Primary Health centre(Under NHM) and many multi speciality hospital and local clinics. Local health events highlight disease control challenges ie Recent hepatitis A (viral hepatitis) rise prompted inspection of eateries, water sources, and community awareness measures. Prior jaundice outbreaks were traced to contaminated water, requiring emergency municipal action. The area hosts a diverse workforce, including a notable presence of migrant labourers, particularly in construction, agriculture, and allied sectors. From a public health and disaster management perspective, Kalamassery Municipality has historically been vulnerable to seasonal flooding, waterborne diseases, and vector-borne illnesses such as Dengue and Leptospirosis. The severe floods experienced during recent years, including the 2018 flood disaster, significantly impacted life, livelihoods, and infrastructure within the municipality. These recurring emergencies have underscored the importance of strengthening local preparedness, response mechanisms, and inter-departmental coordination.

In this context, the development of a localized, data-driven Auxiliary Infrastructure and Logistical Resource Map is essential to support effective planning, timely emergency response, and sustainable development initiatives. Such mapping enables the municipality to identify critical resources, improve accessibility during disasters, and enhance overall resilience of the community.

Table 1: Background of LSGD

Description	Details
Name of LSGI	KALAMASSERY
Type (GP/Municipality / Corporation etc.)	MUNCIPALITY
Block	EDAPALLY
District	ERNAKULAM
Number of wards	46
Total area (sq. km)	27 SQ.KM
Population(Projected)	1.08346
Population density	2631 persons/1sq km
Terrain (coastal/low-lying/backwaters/foothills, etc.)	URBAN
Number of rivers passing through LSGI	1 (MUTTAR RIVER)
Number of water bodies in the LSGI	71
Number of educational institutions	11
Factories / small-scale industries	21 MAJOR
Flood-prone wards	7
Landslide-prone wards	0
Death Management and Disposal Facilities (mortuaries/crematorium, including electric)	1 Electric crematorium
Auditoriums/Marriage halls/convention centres/community halls	4 Auditoriums 7 marriage hall 2 convention centre 14 community hall

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		Details (in numbers)
DEMOGRAPHIC PROFILE		
Total population		1,08,346
Male		52,711
Female		55,635
Transgender		8 approximate
Children under 5		3,123
Adolescent		4,731
Elderly (>60)		17,657
SOCIAL/LIVELIHOOD VULNERABILITY		
Previous EPEP family		30
BPL family		8,930
Tribal communities		85
Migration	Immigrant	2,315
	Emigrant	81
Socio-economically deprived		
Fisherfolk		0
SC Community		3,081
ST Community		85

Description	Details in numbers
Pregnant women	202
Lactating mothers	459
Bedbound patients	97
Patients under palliative care other than bedbound	66
Patients on Haemodialysis	29
Patients on CAPD	0
Cancer patients (currently on treatment)	37
Haemophilic patients	0
Mentally challenged	161
Differently abled	190
Diabetic patients	7538
Hypertensive patients	7503
TB patients	19

Clinical Vulnerability

Certain population groups need 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.

Major Festivals & Events specific to the LSGI (with the possibility of a public gathering)

Sl. No.	Name of festival	Month detailing the periodicity
1	Peringhazha Temple Festival	May last week
2	Vimalabika Church Perunal	March
3	Subramania swami Temple Puthupallipuram	Feb Last
4	Kavunkal Kavu NAD	March Mid
5	Ponnakudam Devi Temple Kangarapadi	March Mid

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.

Table 5. Health Facility Resource Summary

Sl. no.	Health Facility	Type of Facility (MCH/GH/CHC/FHC/SC etc.)	Contact Number	Total beds	ICU Beds	Oxygen-Supported Beds	No. of Ventilator Support Beds	No. of ambulances
Government Healthcare Facilities								
1	Govt Medical college	MCH	04842754000	700	76	40	40	6
2	PHC Kalamassery	FHC	8606277702	NIL	NIL	NIL	NIL	NIL
3	UPHC Kalamassery	UPHC	9633406500	NIL	NIL	NIL	NIL	NIL
4	FWC Kalamassery MC	AAM	9656442320	NIL	NIL	NIL	NIL	NIL
5	FWC HMT COLONY	AAM	9446083512	NIL	NIL	NIL	NIL	NIL
6	FWC KANGARAPADY	AAM	7907896967	NIL	NIL	NIL	NIL	NIL
7	FWC TOG	AAM	7012550528	NIL	NIL	NIL	NIL	NIL
8	FWC KALMASSERY 2	AAM	8943606832	NIL	NIL	NIL	NIL	NIL
9	FWC UNICHIRA	AAM	9544075877	NIL	NIL	NIL	NIL	NIL
10	FWC VATTAEKUNNAM	AAM	8590154623	NIL	NIL	NIL	NIL	NIL
11	WELLNESS CENTRE KOONAMTHAI	WC	7593931983	0	0	0	0	0
12	WELLNESS CENTRE VIDAKUZHA	WC	8281321556	0	0	0	0	0
13	WELLNESS CENTRE HMT COLONY	WC	7012753670	0	0	0	0	0

Table 5. Health Facility Resource Summary

Sl. no.	Health Facility	Type of Facility (MCH/GH/CHC/FHC/SC etc.)	Contact Number	Total beds	ICU Beds	Oxygen-Supported Beds	No. of Ventilator Support Beds	No. of ambulances
Private Healthcare Facilities								
1	KINDER	Pvt	04846660000	120	12	12	12	2
2	MEDICAL CENTRE	PVT	04842916009	NIL	NIL	NIL	NIL	NIL
3	JACOBS HOSPITAL	Pvt	04842556950	20	2	2	0	0
4	METRO MIND	PVT	7306808867	NIL	NIL	NIL	NIL	NIL
5	DOCs AND MEDs CLINIC	PVT	8606316000	NIL	NIL	NIL	NIL	NIL
6	PRISTYN CARE		8065105064	NIL	NIL	NIL	NIL	NIL
AYUSH Healthcare Facilities								
1	Govt.Ayurvedic dispensary Kangarapady	govt	9446078915	nil	nil	nil	nil	nil
2	Govt Homeo HMT Colony	Govt	9074212091	Nil	Nil	Nil	Nil	Nil

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.

Table 6. Private Clinic Resource Summary

Sl No .	Name of Clinic	Registered (Y/N)	Clinic (General / Speciality)	Speciality (if any)	Address	Contact Number	Diagnostic Facility (Y/N)	Ambulance Linkage (Y/N)
1	KINDER	Y	General	multi	Pathadipalam Nr metro pillar No 345	0484666000	Y	Y
2	MEDICAL CENTRE	Y	General	No	Metro Pillar No 263 North Kalamassery	04842916009	no	No
3	JACOBS HOSPITAL	Y	General	No	TVS Road,South Kalamassery	04842556950	Yes	No
4	METRO MIND	Y	Speciality	Psychiatry	Rajagiri Rd,South kalamassery	7306808867	No	No
5	DOCs AND MEDs CLINIC	Y	General	No	Akkam Tower,University Rd	8606316000	No	No
6	PRISTYN CARE	Y	Speciality	Surgical care	Akkam tower,University Rd,	8065105064	No	No

Healthcare Education & Training Institutions

This section tracks the educational infrastructure available, which is vital for human resource planning in the health sector.

Category of Institution	Govt	Private	AYUSH	Total
Medical Colleges	1	0	0	1
Nursing Colleges	1	0	0	1
Dental Colleges	0	0	0	0

Category of Institution	Govt	Private	AYUSH	Total
Para-medical / Allied Health	1	0	0	1
Pharmacy Colleges	0	0	0	0

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.

Item	Govt	Private	AYUSH	Total
Hospital beds	700	140	0	840
Oxygen-generating systems(Y/N)	Yes	Yes	Yes	
Oxygen-supported beds(Numbers)	40	14	0	54
Ventilator-supported beds	40	12	0	52
ICU beds	76	14	0	90
Burns units	1	0	0	1
Blood centres	1	0	0	1
BLS ambulances	2	3	0	5
ALS ambulances	2	1	0	3
Dialysis facilities	1	2	0	3
Dispensaries	6	33	3	42
Medical store	2	18	3	23
Industrial establishments(Medium-scale industries/small-scale industries establishments to whom we can depend in a worst-case scenario)	-	-	-	-

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							
Medical College	Yes	Yes	Yes	yes	yes	yes	yes
PHC Kalamassery	No	no	Yes	No	No	No	No
UPHC Kalamassery	No	No	yes	no	no	no	no
FWC Kalamassery MC	No	No	No	No	No	No	No
FWC HMT COLONY	No	No	No	No	No	No	No
FWC KANGARAPADY	No	No	No	No	No	No	No
FWC TOG	No	No	No	No	No	No	No
FWC KALMASSERY 2	No	No	No	No	No	No	No
FWC UNICHIRA	No	No	No	No	No	No	No
FWC VATTAEKUNNAM	No	No	No	No	No	No	No
WELLNESS CENTRE KOONAMTHAI	No	No	No	No	No	No	No
WELLNESS CENTRE VIDAKUZHA	No	No	No	No	No	No	No
WELLNESS CENTRE HMT COLONY	No	No	No	No	No	No	No

Diagnostics facility mapping at the LSGI level

The diagnostic capacity of **Kalamassery municipality** 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.

Item	Govt	Private	AYUSH	Total
General labs	3	7	0	10
Microbiology labs	1	7	0	8
RT-PCR labs	1	5	0	6
USG units	1	5	0	6
CT/MRI units	1	1	0	2
Research labs	1	0	0	1
Labs of other departments that can be repurposed	0	0	0	0

Laboratory Identification & Basic Details

Sl. No.	Name of Laboratory	Ownership (Govt / Private / Academic)	Address	Contact No.	24x7 Services (Yes/No)	NABL / Govt Approved (Yes/No)
1	Govt Medical college	Govt			Yes	No
2	PHC Kalamssery	Govt	NAD Rd Kalamassery		No	No
3	UPHC Kalamassery	Govt	Vattekunnam Kalamassery	9847730378	No	No
4	Medivision Diagnostic Centre	Private	University Jn, South Kalamassery	9497714903	No	Yes
5	Metropolis Health care	Private	Appolo Jn, Kalamassery		No	Yes

Sl. No.	Name of Laboratory	Ownership (Govt / Private / Academic)	Address	Contact No.	24x7 Services (Yes/No)	NABL / Govt Approved (Yes/No)
6	Kinder	Private	Pathadip alam Nr metro pillar No 345	048466600 00	Yes	No
7	Aster Lab	Private	Nr AISAT	812941668 8	Yes	No
	Hi Tech Diagnostic	Private	North Kalamass ery	623860042 8	Yes	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.

Category	Total Count	Ward	Est. Capacity (Persons)	Contact details
Educational Institutions				
Anganwadis	49		510	9567266397 (CDPO)
Schools	13		3250	
Colleges	1	6	1700	
Healthcare Educational Institutions				
Medical colleges (Govt/Private)	1	14	3000	
Nursing colleges (Govt/Private)	1	14	200	
Dental colleges (Govt/Private)	0	0	0	
Paramedical institutes (Govt/Private)	1	14	200	
Community Gathering Spaces				

Community halls	7	6,3,24, 25	5000	
Auditoriums	12		6000	
Religious buildings	7		3600	
Vulnerable Group Support Facility				
Destitute homes	0	0	0	
Elderly homes	5		400	
LSGD owned other buildings				
Mass Fatality Management (MFM) Infrastructure				
Mortuary	1	1	0	2
Crematorium	1	0	0	1

*refer annexure 1 for contact details

Human resources

This section focuses on the **human capital** available within the Kalamassery Municipality. 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. Narrative sentence: eg., "Total health workforce: 450 personnel, with 60% in government facilities serving as primary surge capacity." A detailed directory with the contact numbers of all workers is maintained (**Annexure in 1**).

Cadre	Govt (No.)	Private (No.)	Total
Doctors—Modern Medicine	7	11	18
Doctors – AYUSH	3	13	16
Doctors – Veterinary	1	3	4
Doctors – Dental	3	11	14
Nursing officers	106	97	203
Lab technicians	11	21	32
Optometrist	7	9	16
Pharmacists	16	33	59
Psychologists	3		3
Counsellors	1	6	7

Public Health & Field-Level Workforce

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

Cadre	Health services	Municipal common services	Total
HS (Health Supervisors)	0	1	
HI (Health Inspectors)	1	1	2

Cadre	Health services	Municipal common services	Total
LHS (Lady Health Supervisor)	0	0	0
LHI (Lady Health Inspectors)	1	0	1
JPHN (Jr Public Health Nurses)	7	0	7
JHI (Jr Health Inspectors)	6	3	9
MLSP (Mid-Level Service Providers)	7	0	7
Palliative Nurses	2	0	2
RBSK Nurses	0	0	0
PRO	0	0	0
Epidemiologist	0	0	0
Data Manager	0	0	0

Community & Support Cadre

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

Cadre	Number
ASHA Workers	42
AWW (Anganwadi Workers)	49
Emergency Medical Volunteers (Trained)	0
Kudumbashree	5735
MNREGS	230
Purusha SwayamSahaya Sangham	63
Ex-Servicemen	37
Retired Police Officers	15

Cadre	Number
NCC/NSS Volunteers	270 NSS/32NCC
Red Cross volunteers	0
One Health Community Volunteers	0
One Health Community Mentors	0

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.

Category	Total Count
NGOs	11
Religious based organizations	7
Foreign based organizations	0
Sports Club/youth clubs	7
Kudumbashree SHGs	57
Ayalkootams	70
Political organizations	5
Residential organizations	52

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.

Category	Total Count	Contact details
Police Stations	2	
Fire & Rescue Stations	0	0
Water Pumping Points	5	
Public Distribution System (PDS)		

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.

Means of transportation	Total Count
JCB	3
Crane	4
Heavy Trucks	2
Tractor	3
Ambulances	7
Mobile mortuaries	6
Boats	0
Taxi service	23

ONE HEALTH & ENVIRONMENTAL SURVEILLANCE

The One Health method integrates environmental, animal, and human health to enable proactive pandemic preparedness. municipality-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 like Kangarapadi

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.

Category	Item	Estimated Population	Wards
Animal Population	Livestock (Cattle/Goats/Buffalo)	107	
	Pet Animals (Dogs/Cats)	1217	
	Stray Dog Population	38 approx	
	Pig Farms (Number of heads)	0	
	Small Units (Sheep / Goats – clustered)	8	
Bird Population	Poultry Units (Birds)	0	
	Poultry- (FOWL)	0	
	Wild/Migratory Birds (Observed)	7	W12
	Crow Mortality Events (Reported)	0	

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 **ponds/ canal / river / backwater / paddy field**. Clusters of pig farms and animal shelters vulnerable to flooding further raise the risk of leptospirosis and other zoonoses mediated by the environment, especially during monsoon floods.

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.

Facility Type	Name of Facility	Ownership Govt / Pvt	Location(Ward No)	Contact number
Veterinary Dispensary	0	0	0	0
Veterinary Hospital / Polyclinic	Govt Vet Hospital Kangarapady	Govt	Kangarapady	88510576
Private Veterinary Clinics	0	0	0	0
Mobile / Emergency Vet Service (incl. night services)	0	0	0	0
Pet Homes / Animal Shelters	0	0	0	0
Slaughterhouse-linked Veterinary Inspection Unit	0	0	0	0

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.

Category	Number Available	Type (Govt/Pvt)	Contact number
Government Veterinary Doctors	1	Govt	
Private Veterinary Doctors	0	Govt	
Livestock Inspectors	2	Govt	
Para-veterinary Staff / Attenders	7	Govt	
Contract / On-call Veterinary Support (if any)	1	Govt	

High-Risk Interface Points (Surveillance Sites)

High-risk interface points for zoonotic disease surveillance in Kalamassery Municipality 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.

Type of Habitat	Type of High risk interface	Geographical vulnerability
Wetlands & Backwaters		
Backyard Poultry Farms		
Cattle Sheds near Water Bodies		
Fish & Meat Markets	2	
Community Slaughter Sites	0	0
Migratory Bird Congregation Areas		
Rodent-Infested Grain Storage		

Category	Total Count	Key Locations (wards)
Poultry Farms		
Backyard / Clustered Poultry Units	7	Kangarapady
Duck Rearing Units (open water access)	0	0
Slaughterhouses/ Slaughter Points	0	0
Meat/Fish Markets	3	Kalamassery
Live Bird Sale Points	2	
Cattle Markets / Weekly Animal Fairs	0	
Pet Shops / Breeders	5	
Animal Shelters / Pet Homes	0	
Waste Disposal Sites near Animal Units	0	

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 *leptospira survival*, raising leptospirosis risk.

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

Risk Factor	High-Risk Wards	Key Locations	Risk Level (High/Med/Low)
Flood-prone areas	w25,w33,w28,w29,w21,w6	Vidya nagar,Arafanagar ,VR Thankappan Rd,University area,Moolaepadam	Medium
Water bodies/wetlands			
Solid waste accumulation	w8,9	peringhazha	Medium
Animal waste disposal issues			
Rodent infestation zones	W8,9.10	Peringhazha	Medium
Industrial effluent discharge	w41,40	industrial area	high
Construction sites / abandoned buildings	All wards	HMT Area	
Poor drainage/blocked canals	W33, w39	Edpally Toll, vattackunnam	High
Drinking water source contamination risk	w10,11,12	HMT Colony Moolaepadam	Medium

Disease Seasonality Mapping

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

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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.

Disease	Peak Risk Season	Key Drivers	High-Risk Locations	Surveillance Focus
Avian Influenza				
Leptospirosis	April		TOG	
Dengue/Chikungunya	June - Nov		Ward 14	
Acute Diarrheal Diseases	June July		0	
Rabies	0		0	
Anthrax (rare)	0		0	

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.

Vulnerability Factor	High-Risk Wards	Key Groups / Locations	Risk Level
Flood-prone households	w25,w33,w28,w29,w21,w6	Vidya nagar,Arafanagar,VR Thankappan Rd,University area,Moolaepadam	Medium
Wetland-adjacent communities	W6		
Backyard poultry / duck rearing households	0	0	
Livestock-rearing households	6		
Slaughterhouse & meat market workers	11		
Fisherfolk& fish market workers	21		
Sanitation workers	38		
Daily wage / migrant workers	813		
Elderly & chronically ill populations	17657		
Pregnant Women	202		
Children (schools, Anganwadi's)	2389		
Limited access to safe water & sanitation			

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.

Disease	2021	2022	2023	2024	2025	Trend(Increasing/Stable/Decreasing)
Dengue	69	108	539	557	113	Fluctuating
Leptospirosis	4	4	4	3	5	Decreasing
Hepatitis A	0	0	4	100	80	Stable
Malaria	1	1	1	0	2	stable
Scrub Typhus	0	0	0	0	0	
Typhoid	0	0	2	4	2	stable
H1N1	0	0	19	3	6	stable
H3N2	0	0	0	0	0	
ADD	97	113	123	157	194	stable
Mumps	0	0	1	18	6	Decreasing
Measles	0	0	0	0	0	
Hepatitis B	0	0	0	0	0	
Hepatitis C	0	0	0	0	0	
Tuberculosis	10	13	16	11		stable
Leprosy	0	0	0	0	0	
COVID-19						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 municipality 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	0	0	14	8	2	24
2	0	0	31	24	2	57
3	0	0	23	24	0	47
4	0	0	7	22	0	29
5	0	0	31	22	2	55
6	0	0	72	11	0	83
7	0	0	13	23	1	37
8	0	0	11	25	0	36
9	0	0	6	7	0	13
10	0	0	3	3	0	6
11	0	0	8	5	1	14
12	0	0	13	17	0	30
13	0	0	2	11	0	13
14	0	0	256	268	82	606
15	0	0	2	11	3	16
16	0	0	0	2	0	2

17	0	0	1	14	1	16
18	0	0	0	6	0	6
19	0	0	7	10	0	17
20	0	0	3	12	0	15
21	0	0	37	24	2	63
22	0	0	9	21	4	34
23	0	0	17	28	0	45
24	0	0	5	13	0	18
25	0	0	22	12	0	34
26	0	0	5	15	5	25
27	0	0	6	5	1	12
28	0	0	28	36	0	64
29	0	0	9	23	0	32
30	0	0	21	29	2	52
31	0	0	21	8	2	31
32	0	0	26	32	0	58
33	0	0	4	10	0	14
34	0	0	17	5	0	23
35	1	1	11	10	4	27
36	1	2	35	17	0	55
37	0	0	7	28	0	35
38	1	2	23	57	0	83
39	0	1	9	11	0	21
40	0	0	7	19	0	28
41	0	0	19	33	0	52
42	0	0	18	23	0	41

LEPTOSPIROSIS

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

Peak: June - August

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

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

20	0	0	0	0	0	0
21	0	1	0	0	0	1
22	0	0	2	0	1	3
23	0	0	0	0	0	0
24	0	0	0	0	0	0
25	0	0	0	0	0	0
26	0	0	0	1	0	1
27	0	0	0	0	0	0
28	0	0	0	0	0	0
29	0	0	0	0	0	0
30	0	0	0	0	0	0
31	0	0	0	1	0	1
32	0	0	0	0	0	0
33	0	0	0	0	0	0
34	0	0	1	0	1	2
35	0	0	0	0	0	0
36	0	0	0	0	0	0
37	0	0	0	0	0	0
38	0	0	1	0	0	1
39	0	0	0	0	0	0
40	0	0	0	0	0	0
41	0	0	0	0	0	0
42	0	0	0	0	0	0

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: july – Oct

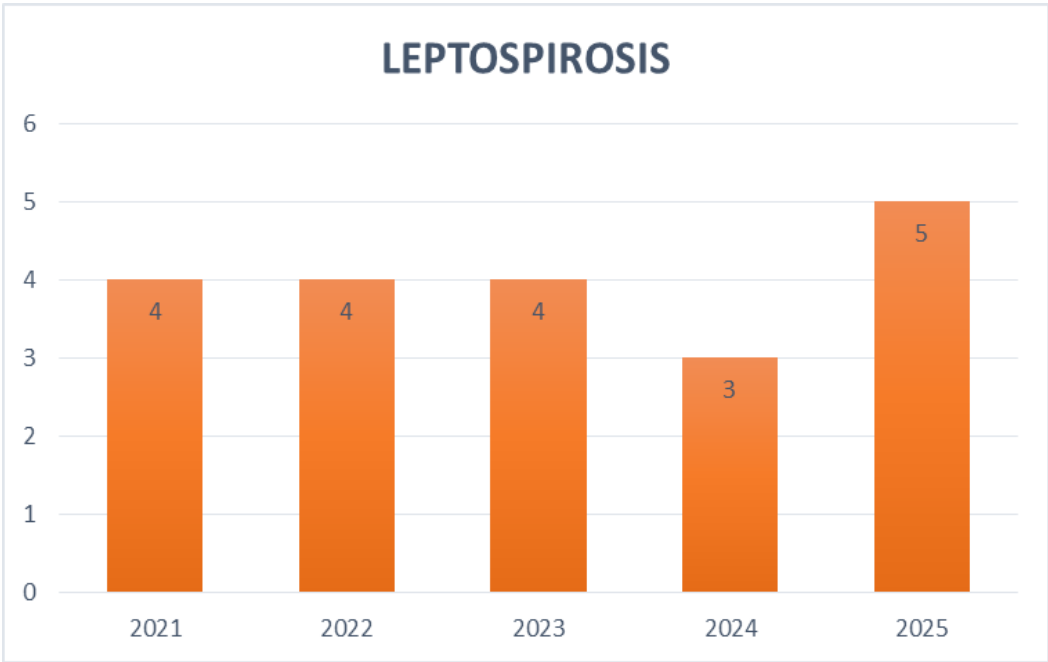
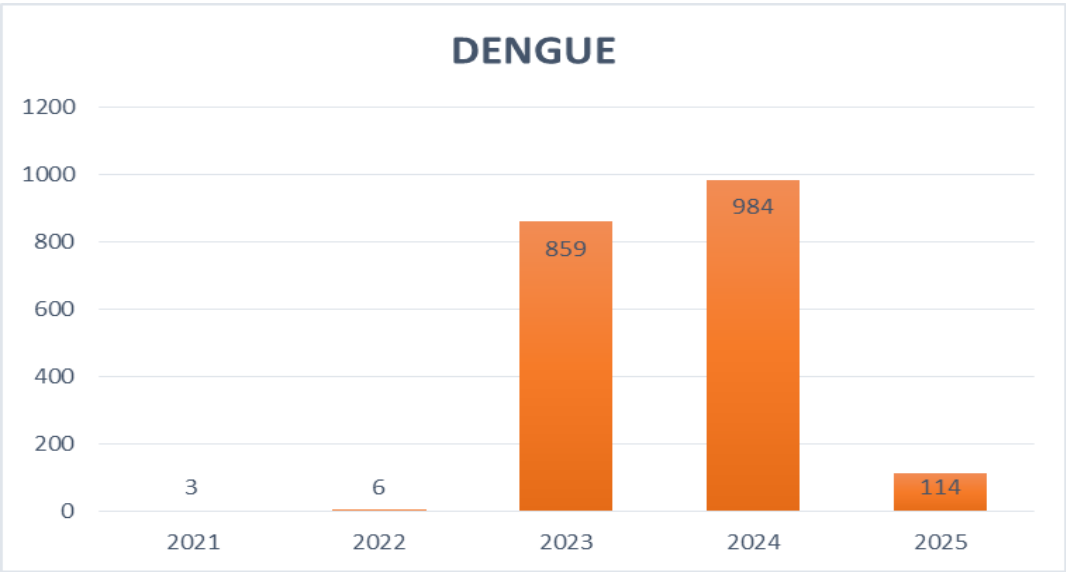
Hepatitis A – Ward-wise Yearly Distribution (2021–2025)

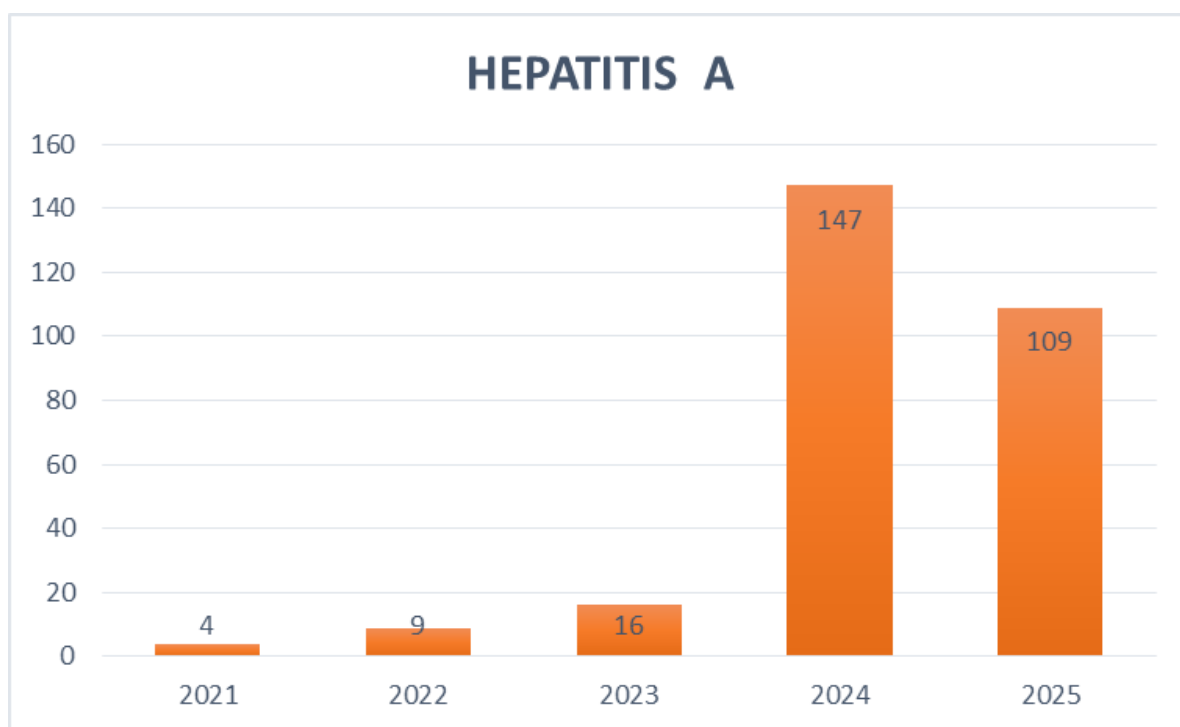
Ward	Hep A – Ward-wise Yearly Distribution					
	2021	2022	2023	2024	2025	Total
1	0	0	0	0	8	8
2	0	0	2	0	8	10
3	0	1	0	0	0	1
4	0	0	0	0	0	0
5	0	0	0	0	18	18
6	0	0	0	0	13	13
7	1	0	1	10	5	17
8	0	0	1	0	0	1
9	0	0	0	0	1	1
10	0	1	2	25	17	45
11	0	0	0	16	5	21
12	1	1	1	67	9	79
13	0	0	2	7	3	12
14	0	0	0	0	1	1
15	0	0	0	0	3	3
16	0	0	0	0	0	0
17	0	0	0	0	1	1

18	0	0	0	0	0	0
19	1	2	0	0	0	3
20	0	0	0	0	0	0
21	0	0	0	5	3	8
22	0	0	1	5	2	8
23	0	0	0	0	0	0
24	0	0	0	0	0	0
25	0	0	3	0	0	3
26	0	0	0	0	0	0
27	1	1	0	0	0	2
28	0	1	0	0	0	1
29	0	0	0	0	0	0
30	0	0	0	0	1	1
31	0	0	0	0	2	2
32	0	0	0	0	1	1
33	0	0	1	0	0	1
34	0	0	1	5	0	6
35	0	0	1	4	4	9
36	0	0	0	2	1	3
37	0	2	0	0	0	2
38	0	0	0	0	0	0
39	0	0	0	0	0	0
40	0	0	0	0	0	0
41	0	0	0	0	1	1

42	0	0	0	0	2	2

Outcome-Based Trend Analysis- 2025





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	115	0

Water Borne Diseases	281	2
Air Borne Diseases	47	0
Blood Borne Diseases	0	0
Food Borne Diseases		

Vector-Borne Disease

Disease	No. of Cases	No. of Deaths
Dengue	113	0
Malaria	2	0
Chikungunya	0	0

Water Borne Disease

Disease	No. of Cases	No. of Deaths
Cholera	0	0
Typhoid	2	0
Hep- A	80	1
Dysentery	0	0
Amoebiasis	0	0
E- Coli infections	0	0

Air Borne Disease

Disease	No. of Cases	No. of Deaths
Influenza	87	0
H1N1	6	0
TB	15	1
Chickenpox	35	0
Measles	17	0

Covid-19	0	0
Pertussis	0	0
Mumps	6	0

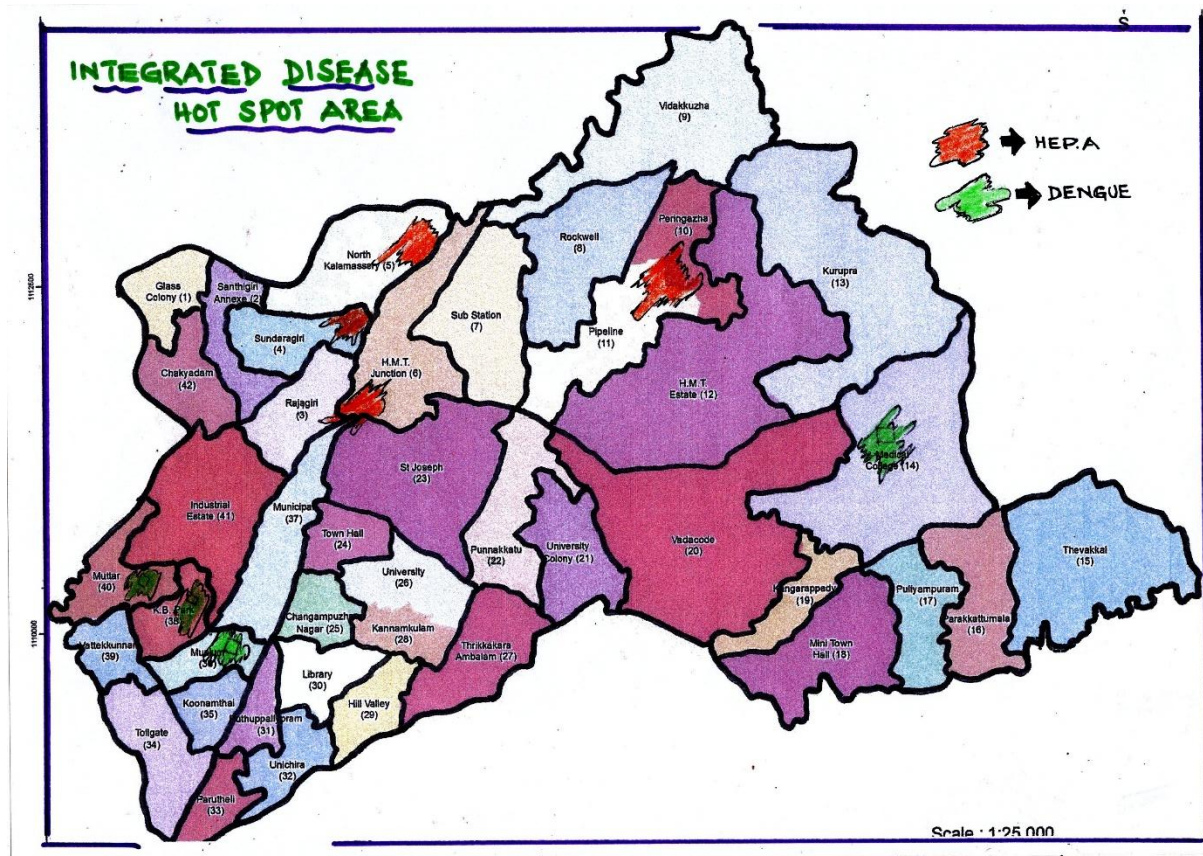
Blood-Borne Disease

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

Zoonotic Disease

Disease	No. of Cases	No. of Deaths
Rabies	0	0
Leptospirosis	5	2
Avian influenza	0	0
West nile	2	0
Anthrax	0	0
Nipah	0	0
Scrub Typhus	0	0

Integrated Disease Hotspot Map (2021–2025)



By overlaying five years of data, we have identified WARD 14 'Red Zone' Wards. These are wards where at least two different categories of diseases (e.g., Dengue and Lepto) recurred in consecutive years. Ward 14 is categorized as the **Highest Priority Hotspot** due to its high vector density. Future health infrastructure, such as the proposed **R.O plants at Ward 10,11** should be prioritized.

Ward No	Dengue Total (2021-25)	Leptospirosis Total (2021-25)	Hepatitis A Total (2021-25)	Mumps (2021-25)	ADD (2021-25)	Total Cases
1	24	1	8	0	11	44
2	57	1	10	0	9	77
3	47	0	1	0	21	69
4	29	0	0	0	7	36
5	55	2	18	0	13	88
6	83	0	13	0	32	128
7	37	0	17	0	15	69
8	36	0	1	1	15	53
9	13	1	9	2	20	45
10	6	1	45	0	16	68
11	14	0	21	0	15	50
12	30	0	79	3	19	131
13	13	1	12	4	16	46
14	606	1	1	0	23	631
15	16	0	3	0	11	30
16	2	1	0	3	10	16
17	16	1	1	0	13	31
18	6	0	0	0	17	23
19	17	1	3	2	21	44
20	15	0	0	0	17	32
21	63	1	8	0	14	86
22	34	3	8	1	19	65
23	45	0	0	0	14	59

Pandemic Preparedness Plan

24	18	0	0	1	22	41
25	34	0	3	0	17	54
26	25	1	0	1	24	51
27	12	0	2	0	22	36
28	64	0	1	1	12	78
29	32	0	0	0	13	45
30	52	0	1	0	17	70
31	31	1	2	1	17	52
32	58	0	1	0	24	83
33	14	0	1	1	21	37
34	23	2	6	0	11	42
35	27	0	9	1	21	58
36	55	0	3	1	13	72
37	35	0	2	1	19	57
38	83	1	0	0	11	95
39	21	0	0	0	12	33
40	28	0	0	0	16	44
41	52	0	1	1	11	65
42	41	0	2	0	13	56

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	Jamal manakadan	Municipality Chairman	LSGD	Chairperson	994605555
2	Dr Anju Angel Alex	Medical Officer (PHC/CHC)	Health Dept	Member Secretary	8606277702
3	Dr Manu	Veterinary Officer	Animal Husbandry	Member	9605290950
4	Mr Vinu	Epidemiologist	Health Dept	Member	8301880556
5	Sreejith PS	Health Inspector/PHN	Health Dept	Surveillance	9447067678
6	Sajna	District ASHA Supervisor	Health Dept	Community link	
7	Mrs Sameena Latheef	ICDS Supervisor	Social Welfare	Vulnerable groups	8304012274
8	Mr Dhileesh	Police Station Officer	Police Dept	Law & order	949787109
9	Mrs Anju Manoj Mani	Ward Councillor Representative	LSGD	Community coordination	
10	Jasmine	Kudumbashree CDO	Kudumbashree	Community mobilisation	999535069

11	Ratheesh TT	NGO/Volunteer rep	Civil Society	Support services	9846775037
12	Mary Jency	AE	Water Authority	Water safety	82899400548

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
Psychosocial support			
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	KSRTC, educational institutional buses		
Media Surveillance			
Intersectoral coordination and convergence			
Collaborative surveillance			

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

Surveillance and Reporting-Enhanced syndromic surveillance:

1. Data sources for surveillance:
2. Event-based triggers (to be monitored and reported):
3. Zoonotic and animal health surveillance
4. 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 register 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	nil	numbers
● Pulse	oximeters	–	5 numbers
● Hand	sanitizers	–	15 litres
● Masks, gloves, disinfectants	2000 5000	–	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: Kalamassery Municipality Office.

Backup Location: Community Hall in Kalamassery Municipality

Health System 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	Padmanabhan	Secretary Municipality	859099101	Overall coordination, decision-making, and reporting to the District level.
Data Entry Operator	Reshma MS	JHI PHC Kalamassery	8606479237	Managing the line list, updating dashboards, and tracking testing results.
Communication Officer	Santhosh Philip	Hs Municipality	9495238714	Handling the public helpline, coordinating ambulance dispatch, and contact tracing calls.
Logistics Coordinator	Sreejith PS	Health Inspector- PHC	9447067678	Arrange, store and distribute Logistics
Technical Support (IT/Data)	Abhilash	Senior Clerk	8606482789	IT Support

Key Points:

- The Control Room shall be staffed with a designated In-charge, data entry personnel, and communication staff with clearly defined roles and shift arrangements.
- It shall maintain updated records on daily monitoring indicators including new cases, persons under active quarantine, and hospital bed occupancy.
- All reports and situation updates shall be shared daily with the Block and District Surveillance Unit.

- The Control Room shall act as a single point of contact for coordination with response teams, health institutions, and other departments.
- 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:

1. Epidemiological Indicators:

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

2. 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)

3. Logistics and Infrastructure Indicators:

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

4. 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.

4. 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

Channel	Responsible Person	Contact
Ward-level announcements	Reshma MS JHI PHC kalamassery	8606479237
Social media	Aneesh JHI Municipality	9074229698
Local Cable TV/Radio	Siju K Bava JHI PHC Kalamassery	8129762211

- All 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.

5. 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: Dr.Anju Angel Alex, Medical Officer, PHC Kalamassery

Reporting Schedule and Protocols:

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

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	KMSCL Manager 7306993299
PPE Kits/Masks/Gloves	Local Vendors	Supply Co Sobha 9072744196
Oxygen Cylinders/Concentrators	KMSCL	KMSCL Manager 7306993299
Medicines/Antivirals	KMSCL	KMSCL Manager 7306993299
Medicines/Antivirals	Supply Co	Sobha 9072744196
Test Kits (RTPCR/Rapid)	KMSCL	KMSCL Manager 7306993299

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.

Organization	Type	Support Offered	Contact Person
Pratheeksha TOG Colony	Club	Volunteers Support	TT Ratheesh - 9846775037
CUSAT Students Union	Students Union	Volunteers Support	Adithyan CS - 9847305159
Priyadarsini Club	Arts club	Volunteer Support	Najeeb - 9526926271

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 : Dhanya	Case management	9446443037
Veterinary	Veterinary Surgeon: Dr Manu	Animal surveillance	9605290950
ICDS	Supervisor: Sameena Latheef	Nutrition support	8304012274
Education	Teacher:- Benny	School coordination	974455489
Police	Dhileesh SHO	Containment enforcement	9497987109
Water Authority	Mary Jency AE	Water supply	82899400548
LSGD Engineering	Vishnu AEx	Quarantine infrastructure	9496466426

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
Njalakam Jamath	Convention Centre	1	W37	100	9995077655
Baith	Convention Centre	2	W37	30	9169169591
Chackolas Pavilion	Hall	1	W5	150	7025100070
Zamra International	Convention Centre	1	W13	300	9847144445
Municipal Town Hall	Town Hall	1	W26	50	04842532026
St Pauls	Auditorium	1	W6	50	0484 2555572
St Jude Thadeus	Church Hall	1	w	25	9400017200

- 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

CONCLUSION

The pandemic preparedness plan for kalamassery municipality serves as a strategic framework to strengthen local readiness and response to future public health emergencies. By enhancing surveillance systems, improving health system preparedness, fostering intersectoral coordination and promoting active community participation, the plan aims to minimize the health, social and economic impact of pandemics. Effective implementation, regular review, and continuous capacity building will be essential to ensure sustained resilience and safeguard the well being of the community.

RECOMMENDATIONS

1. Strengthening Healthcare Infrastructure

- Establish a primary health response unit within the Municipality with trained staff.
- Ensure availability of basic medical supplies (masks, sanitizers, PPE kits, oxygen cylinders).
- Create tie-ups with nearby hospitals in GMC Kalmassery 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.

MOCKDRILL SCENARIOS

ANNEXURE

1. 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 municipality wards

Sl.No	Name of the ward	Ward number	Name of the ward member	Contact number
1	Glass Colony	1	Siji Gireesh	9567628256
2	Santhy Nagar Annexe	2	Ali Thayyath	9846083672
3	Rajagiri	3	Adv Sahana M sambaji	9846154545
4	Sundaragiri	4	Raveendran	8848239873
5	North Kalamssery	5	Sadhiq PM	7012550155
6	HMT Jn	6	Mahin KE	9895069998
7	Sub Station	7	Anas Panayapilly	9633960960
8	Rock Well	8	Prasseja TP	9847790707
9	Vidakuzha	9	Sajna Fessy	8891794808
10	Peringazha	10	Muhammed Rafeeq MV	995532408
11	Pipe Line	11	Sheeba Babu	9846116269
12	HMT Estate	12	Ansar Thoreth	9048249428
13	Kurupra	13	VS Aboobecker	9846676733
14	Medical college	14	KB Baburaj	9995953614
15	Thevakkal	15	Sudhi Kumar	9605252600
16	Parakattmala	16	Bini Pradeep	9995304613
17	Puliampuram	17	Reena Surendran	9995316718
18	Mini Town Hall	18	Shanitha Sidhiq	9539819326
19	Kangarapadi	19	Faizal PM	7736675141

20	stadium	20	Lissie Karthikeyan	9961670025
21	Vadacode	21	Muhammed Asif	7356111701
22	CUSAT Seaport airport Rd	22	Suharath Manaf	8589085978
23	University Colony	23	Muhammed Raseef	9633937937
24	CUSAT Eng. College	24	Adv Rukia Jamal	8592050505
25	St Josphe	25	Aseera Naser	9846016915
26	TownHall	26	Vanidevi	9287341099
27	Changampuzha Nagar	27	Vinod	9048832883
28	University	28	Najeeb PM	9895752383
29	Trikkakkara Ambalam	29	Lakshmi J	9495936335
30	Kannamkulam	30	MA Vahab	9846241662
31	Hill Valley	31	Aboobecker	9400575204
32	Manathpadam	32	Bindhu Teacher	8848765912
33	Library	33	Ammini Francis	9447508394
34	Unichira	34	Manoj KT	8921446832
35	Puthupallipuram	35	Shaini Sasidharan	9567729045
36	Parutheli	36	Martin Thayankeri	9656031110
37	Toll Gate	37	Bindhu Manoharan	9847278825
38	Koonamthai	38	VH Azad	9745002222
39	Meusium	39	Ameera Asharaf	9020888923
40	Vattekunnam	40	Jamal Manakkadan	9946055555
41	Muttar	41	Safna Ashker	8129757475
42	Punchathode	42	Anju Manoj Mani	8893777591
43	KB park	43	KA Riyaz	9633380890
44	Muncipal	44	Shereena Kamarudheen	8848585256
45	Industrial estate	45	Shipsy Milian	9539076143
46	Chakiyadam	46	PK Dhineesh	9995960301

1.2. Other important phone numbers of municipality area

Sl. No.	Name	Contact number
1.	Santhosh Philip PHI Gr 1 Municipality HS i/c	9495238714
2.	Malini SPHI Municipality	9544929632
3.	Anil Kumar SPHI (HI Gr1) Municipality	9995540453
4.	Anjana PN PHI Gr2 Municipality	9074713367
5.	Sherine Joseph PHI Gr 2 Municipality	9745383275
6.	Rajani PHI Gr 2 Municipality	8086459362
7.	Aneesh VS PHI Gr 2 Municipality	9074229698
8.	Exice Office	

1.3. Important offices of gramapanchayat/municipality/ corporation

Sl.No	Name of the office	Contact person	Contact number
1.	Village Office -Thrakkakara North	Village Officer -	8547613820

2.	Agriculture Office	Anju Mariam George Ag.Officer	9383470887
3.	Animal Husbandry Office	District Animal Husbandry Doctor – Dr Saji Kumar	984732447
4.	Police Station	Police Officer	SHO Dileesh 9497987109
5.	BSNL Office	Officer	04842558585
6.	Block Office	Officer	--
7.	KSEB Office	Officer	9496008907
8.	Fisheries Office	Officer	
9.	Fire and Rescue	Officer	

1.4. Health Services

Sl. No	Name of the hospital/institution	Location	Phone number
1.	Government hospitals/PHC	Kalamassery	8606277702
2.	Private hospitals	Kinder	0484 6660000
3.	Clinical laboratories	North Kalamssery	6238600428
4.	Chemist/pharmacy	Aster Pharma	8071178012
5.	Blood donors	Blood donors Kerala	9539166565
	Blood donors	GMC Kalamassery	9846118693
6.	Other language experts (Bihari, Hindi, Bengali, Asamees)		

1.5. Veterinary Services

Sl. No	Name of the Clinic	Name of the Surgeon/Doctor	Place/location	Phone number
1	Govt.Veterinary Hospital	Dr Manu	Kangarapady	9605290950

1.6. Helpline numbers

Helpline	Phone number
Police	South Kalamassery – 0484 2532050 SHO Dileesh 9497987109
Fire and Rescue	Ernakulam Fire and Rescue Station – Phone - 04842205550
KSEB	KSEB Kalamassery 9496008907

1.7. Public and Private Schools Contact details

S.No	Name of School	Institution type	Phone number
1	Najath Public school	Private	9061717765
2	Mount Tabore School	Private	9961927444
3	Kendrreya Vidhyalaya	Govt	9744982486
4	GVHSS Kalamassery	Govt	9446093652
5	HMT Society School	Aided	8075523764
6	LP Schoo, Thevakkal	Govt	9496229484
7	Holy Cross Private School	Private	9207256885
8	SN UPS kangarapady	Aided	9048121134
9	Hill Valley	Private	9061041343
10	NAD 4 School	Govt	9946378822
11	St Joseph HSS	Aided	9633211570
12	Rajagiri Public School	Private	8547459249
13	St Pauls International School	Private	8078835222
14	GLPS HMT Colony	Govt	9744760254
15	GLPS Pallilamkara	Govt	9744554899

1.9. Anganwadi Contact Details

AW No	Name	Name of Anganwadi Teachers	Phone number
1	Garden City	Jessy TJ	9388478228
2	Kaliveed	Mayamol KS	9539408483
3	Butterfly Garden	Jeela	9562349401
4	Kunjatta	Rajeena CA	9656782144
5	Poomuttam	Jaya KS	8129569099
6	Souhrdha	Sindhu PV	9633582105
7	Angels	Anu Sebastain	9633156149
8	Sahrdhaya	Yasira KA	9562497626
9	Kalithottil	Sobhana M	9961724036
10	Deepam	Shobanakumari CA	8086657354
11	Kaliveed	Omana KK	9037579921
12	Amana	Sajitha TA	9495602523
13	Royal	Souja PS	9995666457
14	Soorian	Jeeva	9745231150
15	Kalimuttam	Shemy BM	8089104913
16	Poothumbi	Naseera Beevi TP	9037275077
17	Sarga	Viji PR	9037843048
18	Lovedale	Mary Vinscent	9349287353
19	Avani	Shali TS	9747806587
20	Near Vattaekunnam	Tessy PD	7907799868

21	Unichira 1	Mini PS	9847303540
22	Unichira 2	Bindhu Francis	8848765912
23	Rainbow	Viji KM	7012796247
24	Gokulam	Sini VP	9847684037
25	NSS Karayogam	Jayasree KV	7356051697
26	Mannopilly	Ammini EA	9633774036
27	Ettukalimugal	Shafeera KI	7736176003
28	Rockwell Road	Sulakha MA	9744398335
29	University Colony	Jameela NA	9746453533
30	Moolaepadam	Jancy Fransis	9895964874
31	Pallilamkara LPS	Sudharani MS	9497202890
32	Vanitha vikasana kendram	Sindhu KK	7025115925
33	Pallilamkara Pipeline Road	Vimala Joseph	9526514413
34	GLPS School	Laiju TS	7994310790
35	Vanitha Vikasana kendram	Jubairi PA	9633884197
36	Mattakad	Ancy Abdul Khader	9645758835
37	Kurupra	Rageena ER	9539470557
38	Santhigiri	Sulochana MK	9207941316
39	Sahridhaya Nagar	Manjusha KG	974588818
40	AKG Colony	Shailaja PA	9895450371
41	Kaipadamugal	Resiya KS	8089568254
42	Karippasserimugal	Bindhu PB	9567938799
43	Thejus	Bindhu MP	9446867118

44	Medical College	Sunitha PU	9656803856
45	Vattapurathmugal	Philomina TJ	9020400912
46	Peringattimugal	Saniya CG	8157927621
47	Nanimoola	Mini KP	8304067472
48	Bonny Nagar	Jalaja TA	8281033515
49	Kolottimoola	Soudha MS	8086500473

1.12. Information regarding resources

Means of transportation	Name of Owner	Phone Number
Heavy Trucks	Sakkeer Babu Abdul Azeez	9847593534 9388607665
Tractor	NIL	
Ambulances	Robin	9847653050
Boats	Nil	
Taxi service	Babu	984689227

Annexure 1: LSG Baseline Data Collection Format

A. Baseline data

Sl. No.	Indicator / Field	Baseline Data	Source / Remarks
1	Name of LSG	Kalamassery Municipality	Municipality data
2	District	Ernakulam	
3	Block / Taluk	Kanayanoor	
4	Type of LSG (Gram Panchayat / Municipality / Corporation)	Municipality	
5	Area (sq. km)	27 Sq KM	
6	No. of wards	46	
7	GIS boundary file available	(Yes/No)	
8	Key contact person & phone	Chairman 9946055555	

B. Demography

Indicator / Field	Baseline Data	Source / Remarks
Total population	108346	
Males	52711	
Females	55635	
Transgender population	8 Approx	
Age distribution (<5, 5–14, 15–59, ≥60)	< 5 – 3123 Adolescents – 4731 >60 - 17657	
No. of households	26817	
Population density (persons/sq.km)	2631 per sq km	
No. of migrant workers	2315	
Major occupational groups	Institutional Workers	

C. Vulnerable Populations & Social Risks

Sl. No.	Indicator / Field	Baseline Data (Value / Description)	Source / Remarks
1	No. of elderly (≥60)	17657	
2	No. of persons with disability	190	
3	No. of bedridden persons	97	

4	No. of chronic disease cases (DM/HTN/COPD/CKD etc.)	DM – 7538 HTN – 7503 COPD - 6327	
5	Pregnant women (current estimate)	202	
6	Children <5 years	3123	
7	Tribal population (if any)	395	
8	Fisherfolk / coastal vulnerable groups (if any)	nil	
9	Urban slums / unnotified settlements (if any)	nil	
10	Homeless population	nil	
11	Orphanages / old age homes (number & capacity)	Orphanage -1 Elderly home - 5	
12	Hostels / prisons / shelters (number & capacity)	Hostel – 90 Prison – 0 Shelter - 0	
13	Poverty / BPL estimate	Around 3400 Familes under BPL	
14	Food insecurity hotspots	0	
15	Any history of stigma/discrimination issues (Yes/No)	No	

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)	PHC – 1 UPHC – 1 PRIVATE –3	
2	PHC/Family Health Centre details (name, location)	PHC Kalamassery NAD Rd ,HMT Jn kalamassery	
3	Subcentres / Health & Wellness Centres (number)	AAM- 7 HWC - 3	
4	Private clinics / hospitals (number)	7	
5	Labs available (public/private)	Public – 3 Private - 6	
6	Availability of ambulance services (Yes/No, number)	Yes - 9847653050	
7	Availability of isolation/quarantine facilities (Yes/No, details)	Yes at GMC and Kinder	

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 Data (Value / Description)	Source / Remarks
1	Bus stands / depots (number)	1	
2	Railway stations (number)	1	
3	Boat jetties / fishing harbours (number)	0	
4	Ports / airports nearby (specify distance)	0	
5	Major highways/roads passing through	NH 47	
6	Border crossings (state/district)	No	
7	Major markets / weekly markets	Weekly 1	
8	Tourism hubs / major event venues	2	
9	Schools/colleges with hostels (number)	4	
10	Factories / large workplaces (number)	7	

F. Water, Sanitation & Hygiene (WASH)

Sl. No.	Indicator / Field	Baseline Data (Value / Description)	Source / Remarks
1	Major drinking water sources (piped / wells / borewells / springs)	KWA water, Borewells and wells	
2	No. of public wells	40	
3	No. of households with piped water connection	21710	

4	Water quality testing routine (Yes/No)	Yes	
5	Common contamination risks (flooding, salinity, industrial waste)	Flood and Industrial waste	
6	Open defecation free status (Yes/No)	Yes	
7	Solid waste management system (Yes/No)	Yes	
8	Bio-medical waste disposal mechanism (Yes/No)	Yes IMAGE	
9	No. of public toilets	19	
10	Handwashing stations in public places (Yes/No)	Yes	

G. Zoonotic Risks & One Health

Sl. No.	Indicator / Field	Baseline Data (Value / Description)	Source / Remarks
1	Livestock population (cattle/goats/pigs/poultry) – estimates	Cattle – 368 Goats – 448 Cats - 79	
2	No. of dairy farms / poultry farms / pig farms		
3	Slaughterhouses / meat shops (number)	17	
4	Animal markets (Yes/No, details)	No	
5	Veterinary dispensaries (number)	1	
6	History of zoonotic outbreaks (rabies, leptospirosis, avian flu etc.)	No	
7	Stray dog population management measures (Yes/No)	Yes	
8	Rodent infestation hotspots (Yes/No)	Yes	
9	Wetlands / waterlogged areas prone to leptospirosis	Yes	
10	Bat roosting areas / caves / fruit orchards (if any)	1	
11	Human-animal interface hotspots (farms near residences)	No	

H. Climate & Disaster Risks (Pandemic Amplifiers)

Sl. No.	Indicator / Field	Baseline Data (Value / Description)	Source / Remarks
1	Flood-prone wards (list)	W39,w6,w5	
2	Landslide-prone wards (list)	nil	
3	Cyclone/sea surge risk (Yes/No)	No	
4	Heat wave risk zones (Yes/No)	No	
5	Waterlogging areas (list)	W39, w40	

6	Shelter homes / relief camps (number, capacity)	7	
7	Past disaster displacement history	Yes Urban Flooding and Extreme rainfall events	
8	Disruption to water supply/transport common (Yes/No)	No	

I. Critical Infrastructure & Logistics

Sl. No.	Indicator / Field	Baseline Data (Value / Description)	Source / Remarks
1	Schools (number)	15	
2	Anganwadis (number)	49	
3	Colleges (number)	2	
4	Community halls (number)	7	
5	Places of worship with large gatherings (number)	nil	
6	Large markets / shopping areas (number)	1- LULU	
7	Warehouses / cold storages (number)	11	
8	Telecom/mobile network coverage gaps (Yes/No)	No	
9	Power outage frequency (high/medium/low)	Medium	
10	Availability of generators in key facilities	Most of them have generator facility	

J. Risk Communication & Community Networks

Sl. No.	Indicator / Field	Baseline Data (Value / Description)	Source / Remarks
1	Ward-level rapid response teams (Yes/No)	Yes	
2	Jagrathasamithis / committees active (Yes/No)	Yes	
3	Kudumbashree presence and strength (number of units)	Units – 405 Members - 5817	
4	Volunteer network (number, coverage)	47 Wardwise volunteers	
5	Community-based surveillance mechanisms (Yes/No)	Yes	

6	IEC dissemination channels (WhatsApp groups, community radio, PA systems)	Whats app groups in wardlevel and PA system available in PHC	
7	Rumour tracking mechanisms (Yes/No)	Yes	
8	Languages spoken / literacy considerations	Mainly Malayalam and English	
9	Vulnerable groups communication strategy available (Yes/No)	Yes	

K. Preparedness Planning & Governance

Sl. No.	Indicator / Field	Baseline Data (Value / Description)	Source / Remarks
1	LSG emergency plan available (Yes/No)	Yes	
2	Pandemic preparedness plan available (Yes/No)	Yes	
3	Incident Command System identified (Yes/No)	Yes	
4	Rapid procurement mechanism available (Yes/No)	Yes	
5	Emergency fund available (Yes/No, amount)	Yes	
6	Past outbreak response experience (Yes/No, details)	Not Available	
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)	Mainly Portals	
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 Mainly through India Post	
6	Reporting timeline adherence (good/average/poor)	Good	
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	1) High Population Density 2) Presence of Large workplace bring workers from different states 3) High Migrant Pop	
2	Top 5 high-risk wards (reason)	W14,41,6,40,11	
3	Any unique local risks (industrial pollution, refugee camps, etc.)	Industrial area and water contamination	
4	Recommendations for preparedness strengthening	1) Strengthen Diseases surveillance and early detection 2) Enhance and Maintain Health infrastructure and isolation facility 3) Arrange Stockpiling area and maintain 4) Strengthen Inter dept coordination 5) Arrange Mockdrill	

		against most expected disaster	
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Annexure 2

1. SOP: Admission and Discharge of Patients

A. Admission Procedure

1. Triage and Screening

- All patients shall undergo screening at entry point.
- Record symptoms, travel history, exposure history, and co-morbidities.
- Categorize as:
 - Suspected case
 - Confirmed case
 - Non-infectious case

2. Registration

- Enter details in admission register (name, age, address, phone number, ID proof).
- Assign unique identification number.
- Inform Medical Officer in charge.

3. Isolation and Bed Allocation

- Allocate separate isolation area for suspected/confirmed cases.
- Maintain minimum spacing between beds (as per guidelines).
- Display infection control instructions in the ward.

4. Documentation

- Maintain case sheet with:
 - Clinical findings
 - Investigation reports
 - Treatment details
 - Daily monitoring chart

B. Discharge Procedure

1. Clinical Criteria

- Discharge based on:
 - Clinical recovery
 - Completion of prescribed isolation period
 - As per prevailing government guidelines

2. Documentation

- Record discharge summary including:
 - Diagnosis
 - Treatment given
 - Advice on home isolation (if required)
 - Warning signs

3. Counseling

- Educate patient and family regarding:
 - Infection prevention measures
 - Follow-up schedule
 - Emergency contact details

4. Reporting

- Update surveillance register.
- Inform Panchayat/Health authorities if required

2. SOP: Food, Water, and Sanitation

A. Food Safety

1. Ensure food is prepared in hygienic conditions.
2. Food handlers must:
 - Wear mask, apron, head cover.
 - Wash hands before food preparation.
3. Provide balanced diet as per medical advice.
4. Avoid outside food unless approved.
5. Maintain separate utensils for infected patients if required.

B. Safe Drinking Water

1. Provide safe drinking water (boiled/chlorinated/filtered).
2. Test water quality periodically.
3. Store water in covered, clean containers.
4. Ensure regular cleaning of storage tanks.

C. Sanitation

1. Maintain clean toilets with regular disinfection (minimum 2–3 times daily).
2. Ensure adequate water supply in toilets.
3. Provide soap/handwashing facilities at all points.
4. Ensure proper drainage to prevent water stagnation.
5. Clean high-touch surfaces (door handles, railings, switches) frequently.

3. SOP: Infection Prevention and Waste

Disposal

A. Infection Prevention and Control (IPC)

1. Hand Hygiene

- Mandatory handwashing with soap and water or alcohol-based sanitizer:
 - Before and after patient contact
 - After removing gloves
 - Before food handling

2. Personal Protective Equipment (PPE)

- Provide appropriate PPE to healthcare workers.
- Ensure correct donning and doffing procedures.
- Maintain PPE stock register.

3. Respiratory Hygiene

- Enforce mask usage inside facility.
- Provide cough etiquette education.
- Display IEC materials.

4. Environmental Cleaning

- Use approved disinfectants (e.g., hypochlorite solution).
- Clean floors and surfaces at least twice daily.
- Immediate cleaning of spills.

B. Biomedical Waste Management

1. Segregate waste at source using color-coded bins:

- Yellow – infectious waste
- Red – contaminated plastics
- White – sharps
- Blue – glassware

2. Label all waste bags properly.

3. Store waste in designated area.

4. Hand over to authorized biomedical waste agency.

5. Maintain waste disposal register.

Monitoring and Responsibility

- Medical Officer: Overall supervision.
- Health Inspector/JHI: Monitoring sanitation and waste disposal.
- Ward Member/Panchayat: Logistic support.
- ASHA Workers: Community follow-up and reporting.