HAI-AP
42nd Anniversary Forum
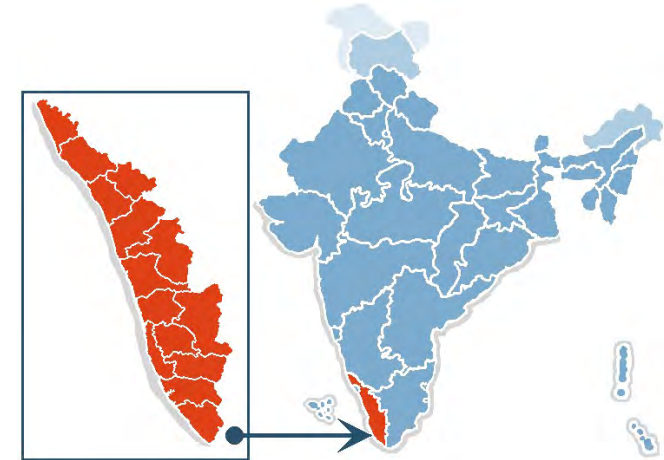
Combating COVID-19 Kerala Experience

Dr.B.Ekbal

Chairperson, Covid-19 Expert Committee

Government of Kerala

Kerala

- One of the 28 States in India
- Area: 38,863 km^2 (15,005 sq mi)
- Population: 34,630,192
- Density: 890/km^2 Nation 428 /km^2
- High Human Development Index 0.782
- Literacy: 96.82%
- Sex Ration: 1084/1000
- Longevity : 75 (M) 80 (F)
- IMR: 6   MMR: 19

Kerala Advantages

- Robust Public Health System
  - Aardram Mission
- Local Self Government Institutions
  - Decentralisation of Health Care
  - Community Participation
- Nipah Experience 2018 -19
- Floods 2017 2018 2019
  - Public Health Approach

Kerala Challenges

- Density of Population
- Rural Urban Continuum
- Elderly Population High
- Co Morbidity High
  - NCD ID
- Sizable Migrant Population 3+ Million Guest Workers
- Emigrant Population 4+ Million

Early Preparedness COVID-19

Jan 20 First advisory on n COV sent to all districts

Jan 24 Special control room was setup in the Directorate of Health Services.

Jan 30
A student who returned from Wuhan, China was tested positive for the 2019-nCoV. 2nd and 3rd Case on Feb 2rd and 3rd

Feb 2
Testing for COVID 19 has been started in laboratories within Kerala

Jan 18
WHO notification on 2019 novel Corona virus was observed and guidance note sent to all districts

Jan 23
Screening of all passengers returning from China started at Airport.

Jan 26

Comprehensive State level guidelines on screening, testing, admissions on 2019-nCoV Guidelines released

Jan 30
All State & District Structures set up

Daily Review Meetings chaired by Hon. Health Minister

State level structures for Covid Management

State Rapid Response Team

State Medical Board

State Expert Group

Management Strategy

- Testing Treatment
- Evidence Based Treatment Protocols
- Contact Tracing
- Home and Institutional Quarantine
- Reverse Quarantine Risk Groups
- Break the Chain Campaign
- Community Surveillance
- Covid Hospitals

Covid Management Facilities

- Domiciliary Care Centre: DCC
- Covid First Line Treatment Centre: CFLTC
- Covid Second Line Treatment Centre: CSLTC
- Covid Hospitals
  - Health Services
    - District and General Hospitals
    - Medical Colleges

Private Public Co Operation

- ICU Beds 10% reserved for Covid cases
  - Two Medical Colleges as Covid Hospitals

- Community Health Insurance for the poor
  - Karunya Arogya Suraksha Padhathi; KASP; 4.2 million families
  - 282 Hospitals

- Private Hospitals: Covid management charges fixed

- Private Labs: Covid tests charges fixed

Protection of the Marginalised

Free Ration

Welfare Pension

Guest Workers

Community Kitchens

Community Kitchens

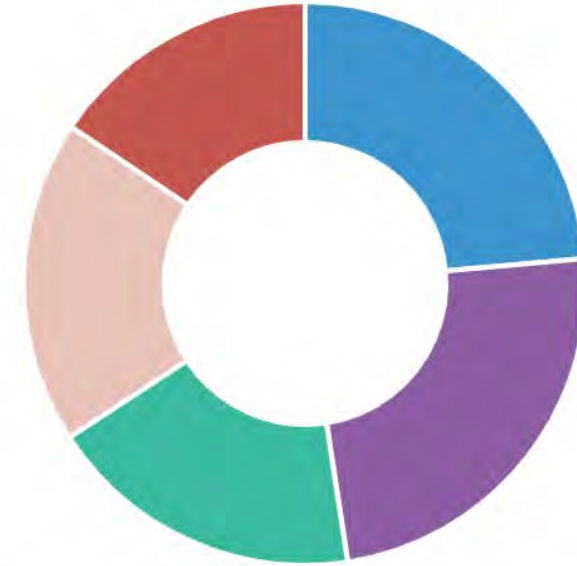|	
🏢	No of LSGIs in Kerala **1034**
🏢	LSGIs with CK **1034**
👥	Community kitchens opened *on 17-05-2020* **853**
🍴	Individuals Served *till 17-05-2020* **8651627**

SannadhaSena

സാമൂഹിക സന്നദ്ധസേന

Social Volunteer Force is the unified body for volunteers from within and outside Kerala. These volunteers have expertise in relief operations and will be active during emergency situations.

374096

registrations as on 08-11-2021 4:55pm

- Identification Of Those Who Needs Assistance
- Delivery of Food/Essential Items
- Procurement Of Locally Produced Goods
- Emergency Assistance at Homes
- Call Centre Operations

Psychosocial Support

'ഒറ്റയ്ക്കല്ല ഒപ്പമുണ്ട്'

For providing Psycho Social Support, 1126 Mental Health Personnel including Psychiatrists, Psychiatric Social Workers, Clinical Psychologists, and Counsellors are giving psycho social support calls to persons in quarantine/ isolation. In
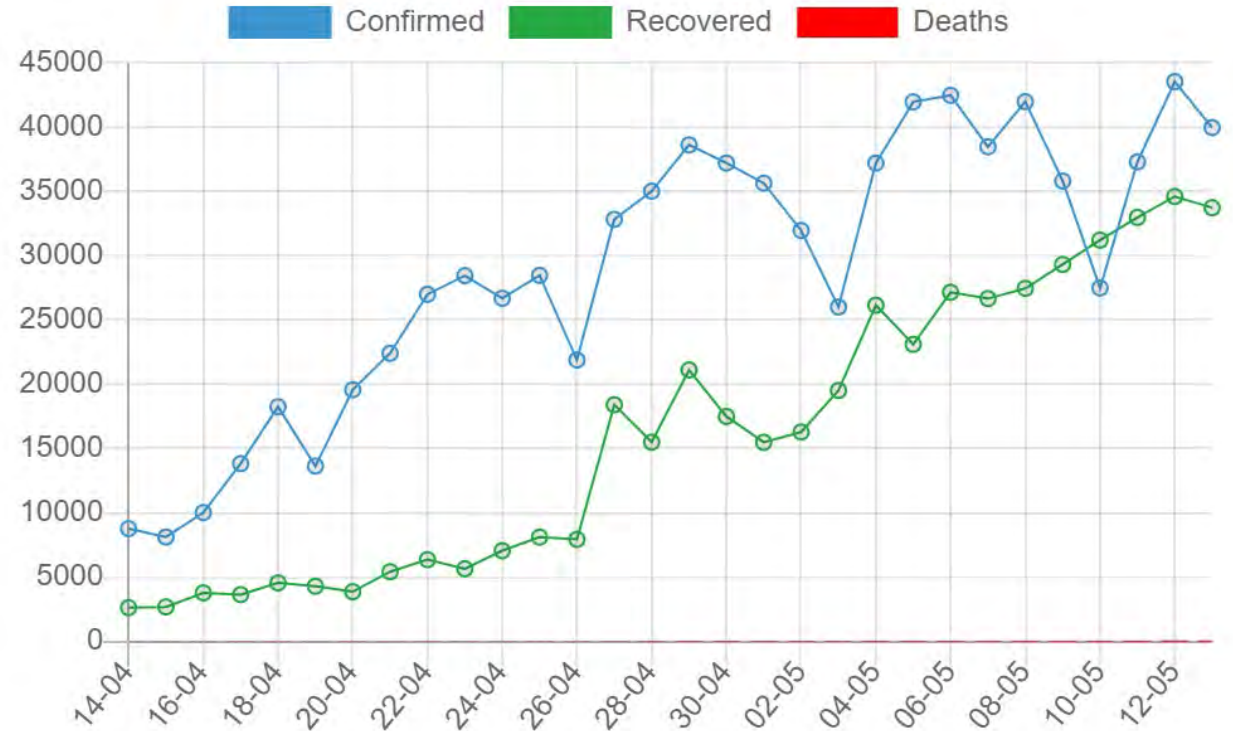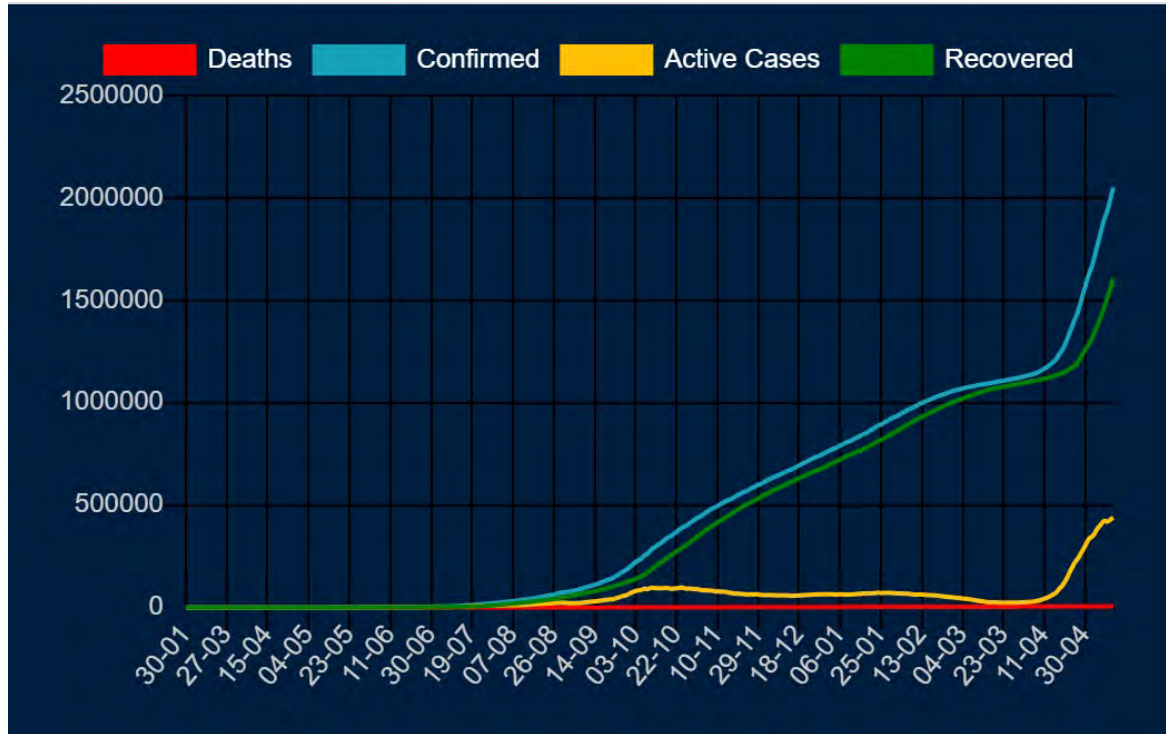
1,24,09,487

PSS and Counselling calls have been given as on 27-09-2021.

Education During Covid

- Online Classes

- Digital Classes Victers TV Channel

- Digital Divide
  - Appliances, Connectivity, Data Charges, Content Generation
  - Education inequity

- Hybrid Classes

Covid: Second Wave

Second Wave

- Low Sero Prevalence
- First wave well controlled
- Vulnerable population high
- Density of population
- Delta virus

No Problems in Patient Management
Oxygen supply ICU Beds Ventilators Medicines

COVID & Non COVID Cases – Occupancy Status – Govt.

District	ICU Beds					Ventilators				
	Total ICU Beds	Covid Occupancy	Non Covid Occupancy	Total Occupancy	% Occupancy	Total Ventilators	Covid Occupancy	Non Covid Occupancy	Total Occupancy	% Occupancy
Thiruvananthapuram	498	171	152	323	64.9%	336	73	50	123	36.6%
Kollam	135	81	14	95	70.4%	130	45	1	46	35.4%
Pathanamthitta	111	56	26	82	73.9%	95	13	0	13	13.7%
Alappuzha	214	38	69	107	50.0%	187	19	10	29	15.5%
Kottayam	364	42	93	135	37.1%	328	39	40	79	24.1%
Idukki	58	45	0	45	77.6%	58	7	0	7	12.1%
Ernakulam	320	111	66	177	55.3%	220	39	9	48	21.8%
Thrissur	192	98	73	171	89.1%	131	61	15	76	58.0%
Palakkad	205	124	21	145	70.7%	127	50	2	52	40.9%
Malappuram	146	95	20	115	78.8%	101	55	4	59	58.4%
Kozhikode	412	95	185	280	68.0%	256	53	37	90	35.2%
Wayanad	126	14	32	46	36.5%	95	4	0	4	4.2%
Kannur	253	105	91	196	77.5%	156	29	16	45	28.8%
Kasaragod	73	18	10	28	38.4%	73	2	0	2	2.7%
Total	**3107**	**1093**	**852**	**1945**	**62.6%**	**2293**	**489**	**184**	**673**	**29.4%**

- All districts have prepared surge plans. Management of COVID patient occupancy will be done by the DPMSU as per the District Surge plan
- Additional beds are identified in Kollam, Idukki, Thrissur and Malappuram having high occupancy in ICU

As on 05/06/23 12 PM

18

Covid: Cumulative Summary of Kerala
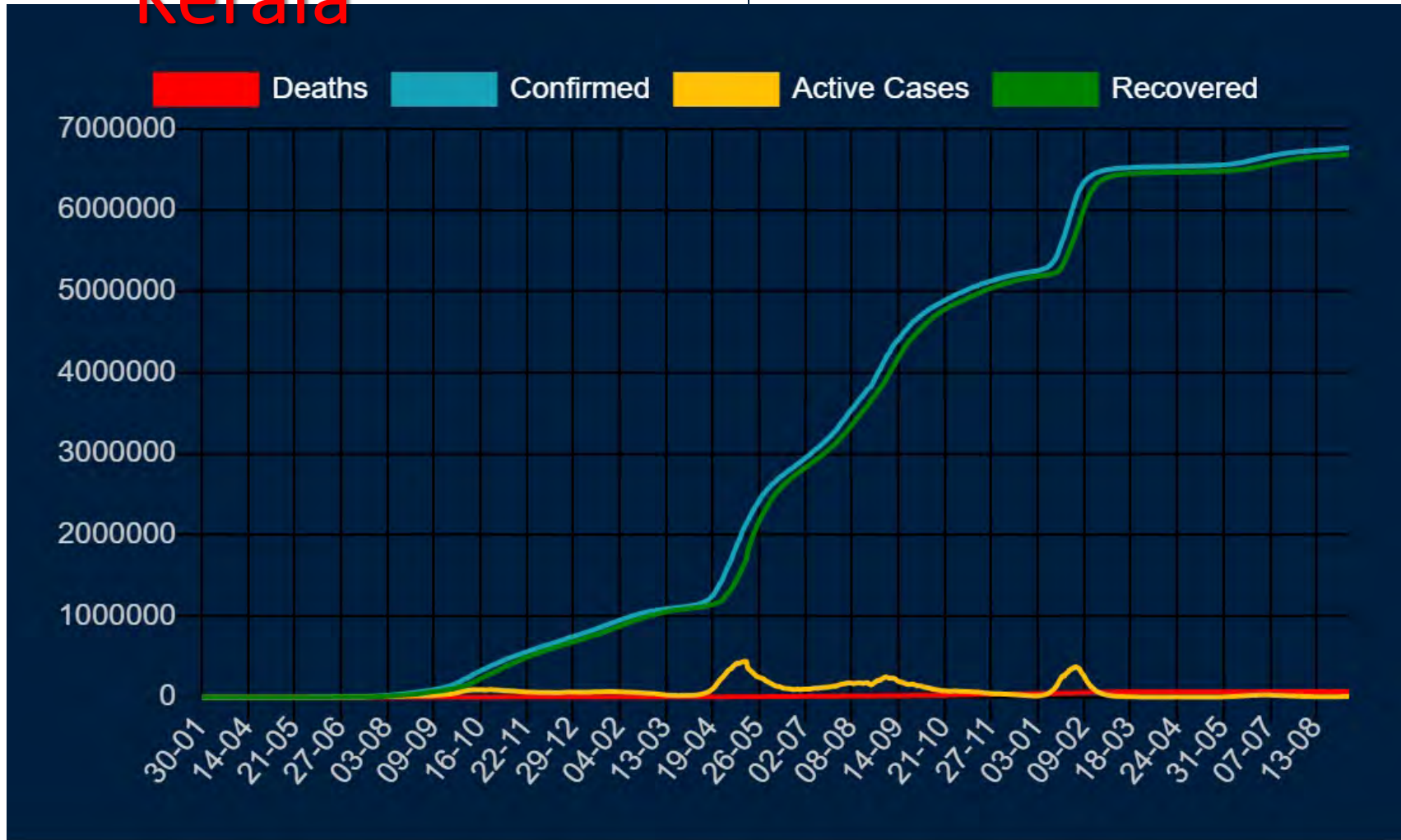
Kerala Current Status

- Total Confirmed Cases: 6767856
- Deaths: 70913
- Total Active Cases: 9110

5,57,01,243

Vaccinations Administered

as on 23-06-2022 11:59pm

101%	84%	81.51%
above 18 yrs*	15-17 years*	Tot. Population*

Dose and Age	Count	Percent
First dose 18+	2,69,80,827	101.05
First dose 15-17	12,90,982	84.16
First dose 12-14	6,55,138	64.80
Second Dose 18+	2,36,515,35	88.55
Precaution dose (Third)	19,94,042	19.30
Total People vaccinated	2,89,26,947	81.51

Analysis of Co-morbidities in death cases

Co-morbid Data Availability

2995 (32.57%)

6200 (67.43%)

Comorbidity
- Comorbidity Present
- Non-Comorbidity/Data Unavailable
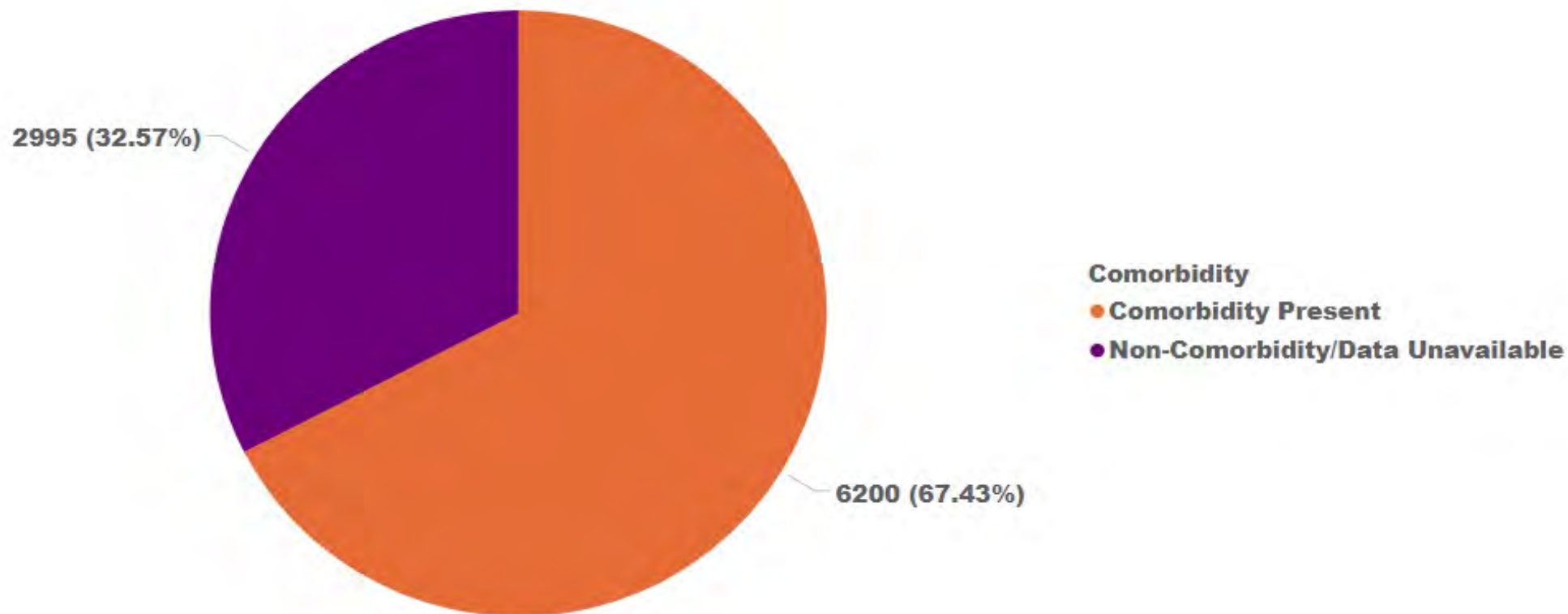
COVID 19 VACCINATION STATUS OF DECEASED DUE TO COVID 19

■ Unvaccinated

■ Partially vaccinated (one dose)
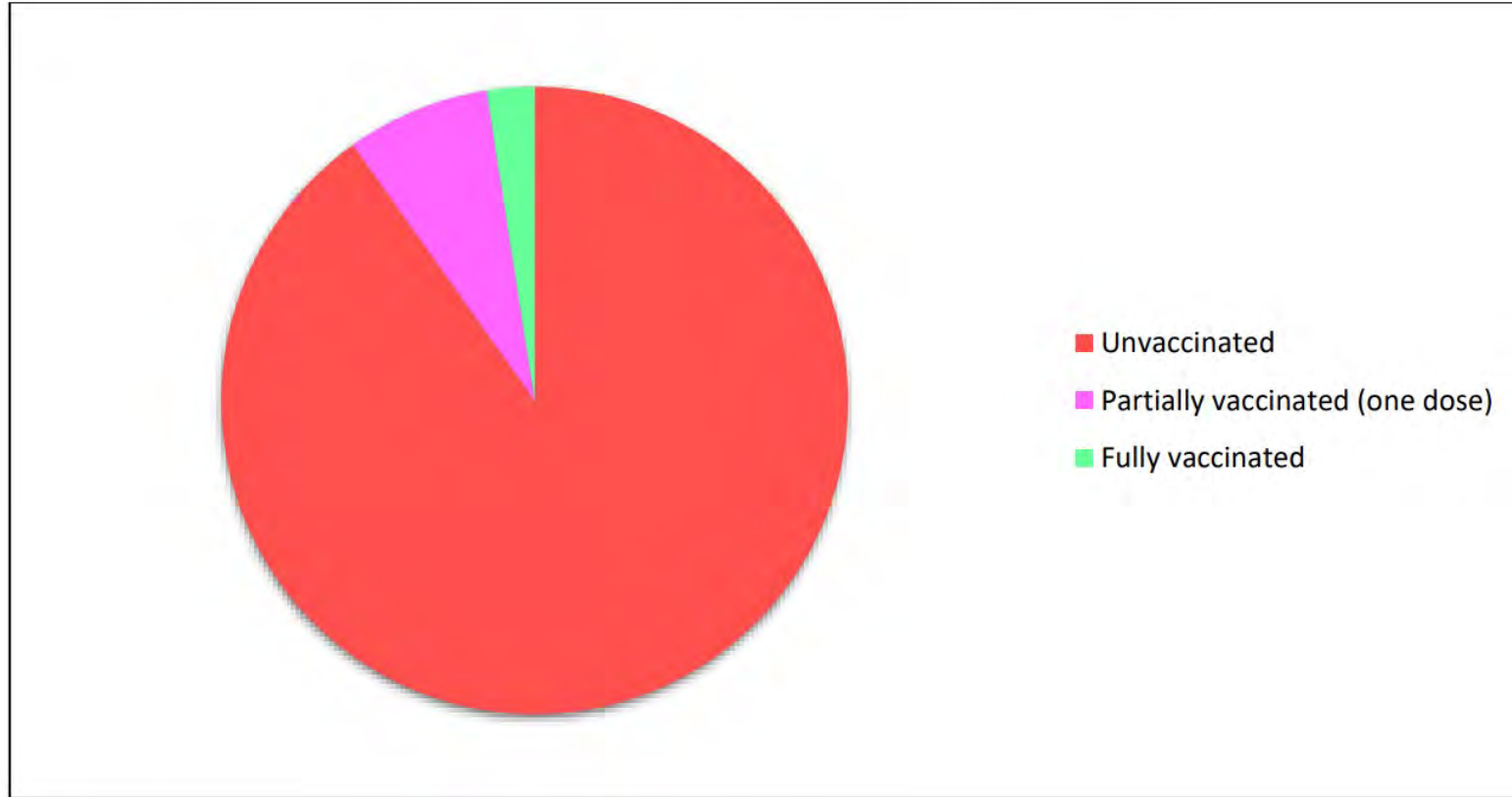
■ Fully vaccinated

**COVID 19, Deaths   90.15% unvaccinated,
2.46 % fully vaccinated 7.38 % partially vaccinated 2.46 %
of deaths were due to vaccine breakthrough infections.**

Kerala Experience

- Vibrant Public Health System
- Dynamic Local Self Government Institutions
- Community Participation
  - Volunteers, Youth Organisations
  - Science Movements, Political Movements
  - Philanthropic and Charity Organisation
- Anganwadi Teachers: ICDS
- Asha Workers Accredited Social Health Activists
- Janmaithri Police: People Friendly Police

Current Covid strategy

- Promoting use of Masks Crowds, Closed AC Rooms, Hospitals, Airports

- Testing: ILI, ARI, Fever   for Covid, Flu

- Complete third dose vaccination

- Monitor Clusters, Patients with severe symptoms

- Genome sequencing

- Post Covid/Long Covid Management

- Immune decay study

Looking forwards: New Normal

- Strengthening of Public Health Institutions
- Morbidity Reduction: Health Education, Promotion and Prevention
  - NCD ID Health and Wellness Centres
- Address problems of the vulnerable
- Socio Economic Study
- Close Digital Divide
- Medical Research Open Source Research Models
- One Health One World Approach

One Health One World

- ## One Health Education Advocacy Research and Training Centre
  - Kerala University of Veterinary and Animal Sciences

- ## Kerala One Health Action Programme
  - KUVAS, State Institute of Animal Disease, Animal Husbandry Department, Health Department

- ## Kerala Antimicrobial Resistance Strategic Action Plan: KARSAP

Wish HAI AP 40th Anniversary All Success