

REVIEW ARTICLE - PUBLIC HEALTH

HEALTH DEPARTMENT PREPAREDNESS IN SITUATIONAL ANALYSIS FOR 44TH CHESS OLYMPIAD HELD AT MAMALLAPURAM 28TH JULY- 10TH AUGUST,2022

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BACKGROUND : The Chess Olympiad held at Mamallapuram from 28th July- 10th August was the very first time such an international event was organized and conducted in our country. This event indeed comprised of teams from 186 countries in open section and teams from 162 teams in the women section. The Directorate of Public Health and Preventive Medicine took care of the entire event in various aspects namely arranging specialist team, screening medical team, ensuring Covid appropriate behavior, digital health platform, vector control, disinfection, protected water supply, general sanitation and also preparedness for mass casualties

KEYWORDS : Sanitation, Triage, Food Safety, Pandemic

INTRODUCTION

Mass gatherings where people accumulated at large for a particular purpose in a short duration, gain importance by demanding health and medical arrangements apart from which the people gathered.

The Chess Olympiad was a biennial chess tournament conducted where teams representing various nations of the world competed. FIDE organized the tournament and hence selected the host nation. FIDE was formed in the year 1924. First Olympiad was organized in 1927, which took place in London. The Olympiads were occasionally held annually and at irregular intervals until World War II but since 1950 they are held regularly every two years

The 44th Chess Olympiad organized by the FIDE was held in Chennai, Tamil Nadu from 28 July to 10 August 2022. This was the very first chess Olympiad to take place in India. The event was initially supposed to take place in Khanty – Mansiysk; along with the chess world cup 2019, but was moved to Moscow and scheduled for the period from 5 to 17 August 2020. However, it was postponed as a result of the growing concerns about the Covid 19 pandemic and finally relocated to Chennai following Russia's invasion of Ukraine. Totally 188 teams were registered from 186 countries in open section and 162 teams from 160 countries in the women section.

The Tamil Nadu Health department made arrangements for medical teams and ambulances in order to cover covid – 19 screening at airports, hotels and venues. The Department identified 13 hospitals in and around Old Mahabalipuram Road and East Coast Road. The Directorate of Public Health

and Preventive Medicine monitored the compliance with the covid 19 protocols, real – time PCR testing and following the Monkey pox guidelines. The Directorate also deployed static medical teams in identified Hotels for treatment of minor ailments; screening medical teams were deployed in all 21 hotels and at the tournament venue. Continuous fogging and spraying measures to prevent mosquito breeding and fly control measures were implemented by the Directorate in coordination with the local bodies. More than 250 persons including medical personnel, paramedical personnel and field workers were deployed from the Directorate.

PLANNING

1.State level organising committee : State level organizing committee health and medical services was formed under the chairmanship of Principal Secretary, Health and Family welfare department. The committee comprised of Commissioner Greater Chennai Corporation, Commissioner of Food Safety department, Mission Director NHM, Director of Indian Medicine and Homeopathy, Project Director, Managing Director of Tamil Nadu Medical Service Corporation, Director of Medical Education, Director of Medical and Rural Health Services, Director



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of Public Health and Preventive Medicine, District Revenue Officer of Tamil Nadu Health System Program and District Collector of Chengalpattu.

2. District level organising committee : District level organising committee was formed under the chairmanship of District Collector of Chengalpattu District. The committee comprised of Deputy Director of Health Services, Joint Director of Health Services, Dean Chengalpattu Medical College and Designated Officer Department of Food safety and Drug administration. The committee in coordination with the state level organizing committee.

3. Working group : At state level, working group was formed under the chairmanship of District Revenue Officer, Tamil Nadu Health Service Program and Additional Director of Tamil Nadu Health Service Program. The working group was formed for Covid screening at airport and tournament venue, covid treatment and isolation, fogging and disinfection, medical teams at opening and closing ceremony, Yoga and Naturopathy teams, Anti doping coordination, specialist team at tournament venue, mass casualty team, static medical team, emergency operation and ambulance assistance, 104 control room, insurance cards and inpatient care, food safety, child health, maternal health, TNMSC supplies and distribution ID cards and passes for the vehicles.

4. Screening at airport : A team was arranged at the airport for screening of players, coaches, support staff and visitors. 2% of total flight passengers were tested randomly on arrival at the airport.

5. Medical arrangements at Hotels

5.1. Static Medical team : Health teams had a prompt display at all hotels and strategically stationed near the reception for easy access to players and team members. Totally 8 static medical team was formed. Each team consisted of Doctor, Nurse, Pharmacist, lab Technician and a Driver. The 8 static medical team were stationed in the identified hotels namely ITC Welcome, Taj Fisherman Cove, Grande Bay Resorts, Park Plaza, Hotel Leela Palace, Esthell Village Resort, Novotel Sholinganallur and Siruseri. The teams were posted in three shifts round the clock in the hotel.

The team did screening for all the chess players, coaches, support staffs and other team members in the stationed hotel. They were screened for temperature using contactless thermal scanners. If anybody was found symptomatic, they were isolated and tested in the same hotel based on existing covid protocols. Any one from the team (MO/SN/Pharmacist/Lab Technician) did the screening. The particulars of the screening were recorded in the given format daily before they leave the hotels for the tournament.

The static medical team also treated minor ailments as per the SOPs. If anyone required institutional care, they were shifted after informing the 104-control room. The patient was shifted through 108 stationed in the hotel.

The static medical team was equipped with drugs for treatment of minor ailments, emergency drugs, dressing materials, examination kits, Td vaccine, ECG, Oxygen Concentrator, Nebulizer, wheel chair and covid sample collection kit.

5.2. Screening Medical team : Screening Medical team comprising MLHP/ Village Health Nurse, Health Inspector, Hospital worker was deployed in the hotels where static medical team was not there. They were in the hotel from 9 am to 4 pm.

5.3. Lab : Lab technician in the static medical team collected the covid samples for those who were found symptomatic. The lab technicians were equipped with adequate VTM kits, PPE kits, RTPCR testing request forms. Any players, coaches, support staff or visitors found symptomatic, samples for covid was collected. The collected samples were transported using reverse cold chain mechanism by the Health Inspector deployed for the Hotel to the State Public Health Laboratory, DMS campus, Chennai. Standard RT – PCR testing done at State Public Health Laboratory, DMS campus, Chennai. Turn Around Time (TAT) for release of results was 3 hours from the time of sample receipt at State Public Health Laboratory. Once the results were received, it was communicated to the concerned.

6. Arrangements at Tournament venue :

6.1. Specialist team : Totally 7 specialist team was deployed in the Tournament site from Chettinad Hospital and Research institute, Shri Sathyasai Institute of Medical Sciences, Tagore Medical College Hospital, Karpaga Vinayaga Institute of Medical Sciences, Melmaruvathur Adhiparasakthi Institute of Medical Sciences, SRM Medical College and Hospital, Shree Balaji Medical College and Hospital.

Specialist team comprises of Physician, Surgeon, Anesthetist, Staff Nurse, Hospital worker. The team was equipped with drugs for treatment of minor ailments, emergency drugs, dressing materials, examination kits, Td vaccine, ECG, Oxygen Concentrator, Nebulizer and wheel chair.

The static medical team also treated minor ailments as per the SOPs. If anyone needed institutional care, they were shifted after informing the 104 control room. The patient were shifted through 108 stationed in the hotel.

6.2 Screening Medical Team : In the Tournament venue 5 screening medical teams were deployed in VIP entrance, Players bay and Spectators entrance. The screening medical

team was equipped with contactless thermal scanner, Pulse Oximeter, hand sanitizer, masks, BP apparatus, Glucometer and covid sample collection kits. The screening medical team did screening for all the participants like chess players, coaches, support staffs, other team members and the spectators. They were screened while entering the tournament venue for temperature using contactless thermal scanners. Anybody found symptomatic should not be allowed to enter the venue until found negative. If anyone found symptomatic samples for covid was collected at the venue itself.

6.3 Ensuring Covid Appropriate Behavior : Totally 6 teams were deployed in players bay, Hall 1 entry, Hall 2 entry, VIP entrance, Cloak room and spectators' entry. The team consisted of Health Inspectors, Hospital workers, DBCs and Mazdoors. The team ensured whether all wore mask covering nose and mouth, social distancing as far as practicable.

6.4 Digital Health Platform : At the tournament venue a digital health care platform was organized. Through this platform health related services and information were given through electronic and telecommunication technologies. It helped the players to contact their doctors for care and treatments.

6.5 Vector control & Fly control : Vector control and fly control were carried over by local bodies, public health department and hotel authorities at the tournament site, 21 hotels and surrounding areas of Mahabalipuram. Inside the hotel premises vector and fly control were carried out by the hotel authorities. Public health department started vector and fly control activities 2 weeks before the commencement of the tournament. The solid waste management, fly control measures taken at compost yard, outdoor fogging in the areas surrounding the hotels were supervised by the local bodies.

6.6 Disinfection : Disinfection activities in tournament areas and inside the hotels were carried out by the hotel authorities as per the protocols laid on by the Health Department.

6.7 Protected water supply : Protected water supply in the hotel was provided by the hotel authorities in the hotel itself. The local bodies and the public health department supervised the supply of protected water supply.

6.8 General sanitation : To ensure proper sanitation adequate arrangements were made before the tournament itself. Sanitation inside the hotel were taken care by the hotel authorities. Sanitation in the surroundings were taken care by the local bodies under the supervision of Public Health department. Mahablipuram Town Panchayath, Greater Chennai corporation, Kelambakkam Panchayath areas were thoroughly cleaned in and around before the commencement of the tournament. Adequate arrangement was made for

the proper collection and removal of all refuse throughout the tournament and adequate number of conservancy workers were supervised by the masthries under the control of Health Inspectors/ Sanitary Inspectors. Provision of sufficient number of carts for prompt removal of all refuse were collected and dumped in dumping yard. Provision of temporary toilets separate for each sex were provided at the tournament sites in adequate number for use of the general public and all workers involved in the tournament site.

7. Preparedness for mass casualty :

In case of Mass Casualty Incidence (MCI) Health sector provides assistance to the ill and injured.

The role of health sector is

1. Assessment and Triage
2. Stabilization of the sick
3. Transportation of the sick to the nearby health facility.

7.1 MCI : Mass Casualty Incidence: when the no. of fatalities exceeds the local city resource capabilities; causing them to request assistance or aid from outside.

7.2 Preparedness for MCI :

1. ACLS Ambulance to be kept always ready and will stay 2 to 3 km from actual event area so that in case of any MCI.
2. MCI – A triage team and emergency management team with adequate equipment must be stationed at closed by
3. 104 exclusive help line for the event.
4. Evacuation plan assembly point outside the event area to be designated and the ambulances with the patients will be sent to nearby Hospitals as per the list given below.
5. All ambulance pilots and health assistants must be instructed and given clear instructions the mode of operation during declaration of MCI.
6. Govt and private hospitals of Mahabhalipuram to be sensitized for emergency management.
7. Additional Medical officers and nurses from Primary health centers and Govt Hospitals to be mobilized on declaration of MCI.
8. All medicines and equipment and kits are provided by DMS.

7.3 Types of Medical Teams Required :

S.No	Teams*	Description	Position
1	Medical Team	3 doctors, 3 nurses and 3 paramedics for each venue with medicine kits	At the venue
2	Triage / Assessment Team	5 teams with 1 doctor, 1 nurse and 2 paramedics <ul style="list-style-type: none"> • medical teams of near by 5 hotels • 1 team for 250 persons in 1-2 hour TRIAGE 	Nearby facility
3	Emergency Management	2 teams with complete resuscitation kits	

7.5 Simple Triage and Rapid Treatment (START) :

1. **Green** - Able to move aside – managed by first aid team
2. **Black** - Not able to move / no respiration even after opening the airway. (Dead – to be cleared with respect)
3. **Red** -not able to move and -
 - RR > 30 - need emergency
 - CRT > 2 sec - management
 Not obeying simple commands.
4. **Yellow** - Rest of the immobile patients.
 - managed by medical team

7.6 On declaration of Mass Casualty Incidence by the overall nodal officer :

1. 104 to activate all medical teams, local hospitals, DDHS, JDHS, Deans & MS of all hospitals concerned immediately.
2. All Medical teams nearby (5 teams) must rush to the declared spot in less than 5 minutes (5 minutes to 40 minutes; ITC welcome, Grand bay, Esthel village, Taj fishermen cove and Novotl Siruseri)
3. All ambulances (22) should reach the spot in 5 – 30 minutes
4. Emergency medical team to rush in 2 minutes
5. In house medical team and other teams to start triage
6. Volunteers help to remove the dead
7. Red tagged patients to be shifted in less than 30 minutes to those hospitals given above
8. Additional man power and ambulances to be assigned by JDHS & DDHS as required
9. One coordinator to monitor bed availability and ambulance movement.

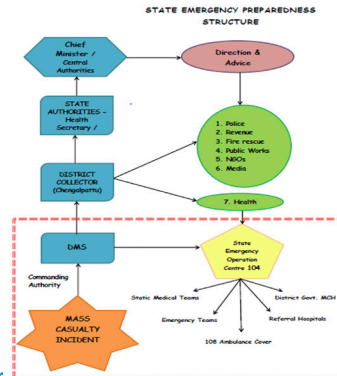
7.7 Preparedness for Red tagged patients of Chengalpattu Medical College Hospital, Chengalpattu

1. 2 ICU Beds in IMCU- TAEI block and 2 ICU beds in TAEI ward with all monitoring facilities, O2 outlets and Suction outlets have been allotted with 2 emergency drug cart trays with all resuscitative drugs and consumables.
2. In case of more number of inpatients expected, the allotted beds may be extended up to 10 to 15 beds.
3. Duty Asst. surgeons of General medicine, General surgery, Anesthesiologists, Orthopaedician departments were posted for 24 hours duty apart from the routine duty team, along with two senior ICU trained staffs and 4 paramedical workers were exclusively allotted. Duty MO and other staffs were relieved only after the next duty persons arrival
4. Appropriate Sign boards at appropriate places for easy access to TAEI block were kept.
5. One ALS ambulance was exclusively allotted and kept ready with all amenities including blood storage facilities.

7.8. District Field Operation Team: 12 District field

operation teams were formed. These teams were stationed in tournament venue, Mahabalipuram, OMR, Sholinganallur and Kovalam. The team would be activated in any MCI arises.

7.9 Flow of command

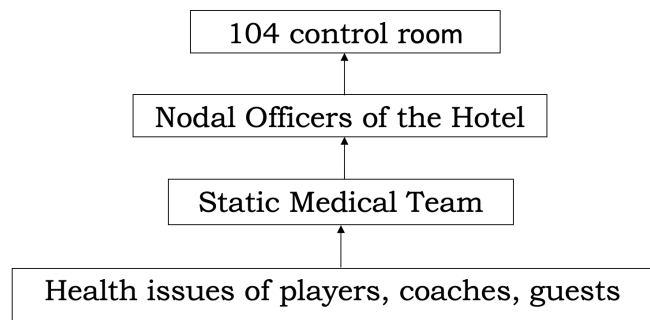


8.Empanelled ir

government of Tamilnadu decided to deliver health insurance card to all players under Chief Minister Comprehensive Health Insurance Scheme. Under this scheme the players can bear the medical expenses upto ₹2 lakhs (€ 2,500) in case any players admitted in the hospital.

9. Emergency operations and Ambulance Assistance:

9.1. 104 control room : A state control room for health department was formed in 104 call centre for addressing the health related grievances and for daily report collection. State control room coordination committee was formed.



in the prescribed format through online. The reports were collected for the period of 8 pm to 8 pm. The nodal officer of the concerned hotel entered the report through online with username and password given to them. The nodal officer from the hotel where static medical teams were deployed submitted the report on the line list of the outpatient.

9.2. 108 Ambulance deployment : Totally 28 ambulance deployed exclusive for the 44th Chess Olympiad. 108 ambulances were stationed one in each hotel. In Tournament venue 5 ambulance was deployed in the following site. 1 ALS ambulance at the entry of the tournament venue, 1 ALS ambulance near specialist team, 2 BLS ambulances in VIP parking area, 1 BLS ambulance at spectators frisking area.

Apart from regular 108 ambulances 5 neonatal ambulance were deployed.

10. Anti dope team : Anti dope team was deployed in the tournament site. WADA gave instructions to all India chess federation AICF to collect urine samples from players chosen randomly on 3 different days, 28.07.22, 03.08.22 and 09.08.22. On 28.07.22 being the inauguration day samples were not collected.

A team from NADA of 2 doctors and 2 nurses came and took charge of the doping control station on 28.07.22.

On 3rd and 9th of August 2022, 10 urine samples were collected each day from different players. Players were chosen randomly by WADA representative Dr Morape. A total of 20 Samples were collected, stored properly in the ILR and packed to maintain the temperature. Samples were sent through the courier on the same day to the designated laboratory at Delhi.

11. Food safety team : Food safety team was deployed in all 21 hotels accommodating the players. The team inspected the food served to the players every day. Additional hygiene training and inspection for food safety team was given. Staffs from other district were deployed to monitor food safety measures in all hotels.

12. Blood bank : Blood was arranged in all blood banks of Chengalpattu Medical College Hospital and RGGH. E - Rakthakosh app training was given to all Health Personnel who were involved in the medical team. The contact directory of the donors was made available, which will help the health personnel to arrange without any delay.

13. Yoga and Naturopathy : Yoga and Naturopathy team was deployed in all hotels accommodating players. The team conducted yoga sessions every day in the morning which helped the players to ease out from stress. Staffs from other district were deployed to have team in all the 21 hotels.

14. Training : Training for health personnel involved in the 44th Chess Olympiad was conducted at RGGH and Chengalpattu Medical College and Hospital from 12.07.2022 to 20.07.2022. At Chengalpattu Medical College training was conducted in 4 batches and in RGGH training was conducted in 6 batches. Training module was prepared and the training was given on treatment of minor ailments, drug reporting format, SOP on mass casualty, Google Translation app, e-Rakthakosh app, Triaging and mock drill. Totally 433 health personnel were trained; 242 health personnel at Chengalpattu medical college and 191 health personnel at RGGH.

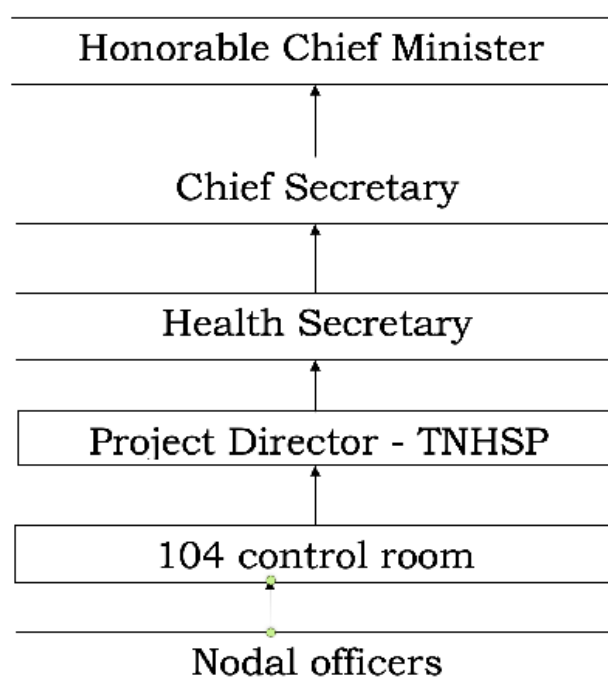
15. Review and progress meeting : Periodic review meeting was conducted at state level and district level to monitor the progress of the arrangements by the health department. State level coordination meeting and District level coordination

meetings were conducted to identify the progress, challenges and the gaps for the effective implementation of the health services.

16. Communication strategies : For effective communication with the team members at the state level control room number was established 044 27440100. Apart from landline number whatsapp number for control was established 7550032333. Also whatsapp groups were created for exchange of information and communication.

17. IEC : SOPs were formed for treatment of minor ailments and management of mass casualty by the experts. Detailed training was given for the health personnel on the SOPs. A contact directory was prepared at the state level for department of health and family welfare. The contact directory included details of all team involve from health and family welfare department.

20. Data collection : Reports for health department were collected through online by the 104 call centre. Online daily reports from the nodal officer were collected.



It was really a great experience to work in Chess Olympiad especially during covid pandemic with nearly 3000 participants including players, coaches, support staffs from more than 180 countries. We were prepared for managing covid positive individuals and some food poisoning cases as players with varied food habits assembled here. But to our surprise we managed from preterm labour to fractures, 44th chess Olympiad saw it all. We managed effectively all kind of illnesses/ symptomatic with highest satisfaction for those who availed medical treatment/services. We managed heart

attack, prostate enlargement, denture replacement , newer spectacles, sudden blackout during a game of chess at playing arena. We managed illness/ symptoms right from head to foot effectively to the fulfillment of all participant of chess Olympiad.

With the time technology, human interactions, economics as well as lifestyle including civilization has undergone rapid changes, due to this mass gatherings though reduce in numbers has increased in the way mass gather in unthinkable proportion. For the state thi is naïve experience , hence with capacity building, this was tackled. The circumstance where we had to tackle pandemic especially resent pandemic has thrown unforeseen solution in anticipation of possible re emergence.

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