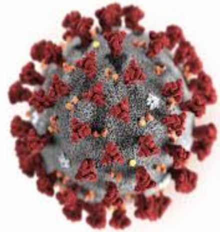
*Dr. Jithendra Ariga*
*School Oral Health*

*Dr. Jagan Kumar Baskaradoss*
*Faculty of Dentistry, Kuwait University*



# Contact Tracing (CT) of COVID-19 Positive Indian Patients in Kuwait- Lessons Learnt

## Report submitted to Public Health Department, Ministry of Health, Kuwait

Prepared by School Oral Health Program (SOHP) and Indian Dentists' Alliance in Kuwait (IDAK)

# Contact Tracing (CT) of COVID-19 Positive Indian Patients

## Background and Rationale:

- Kuwait started having COVID-19 cases during late part of February 2020. Most of the cases during the initial days were the ones related to travel.
- During the second half of March, Kuwait experienced some amount of local spread of COVID-19 among expatriate population. This local transmission was predominantly seen among the Indian population in Kuwait.
- At this point of time, Ministry of Public Health, Kuwait needed volunteers to help them with contact tracing (CT) of patients from South-Asia, especially Indians. There was a definite need to communicate in their local languages with these patients.
- School Oral Health Program (SOHP) and Indian Dentists' Alliance in Kuwait (IDAK) came forward to help MOH with this task.
- IDAK formed a team of almost 75 dentist volunteers with different linguistic backgrounds. Few members of Indian Doctors' Forum (IDF) also joined the team.
- After the initial approvals and training, the team started operating from 2nd week of April.

### Key Considerations for COVID-19

- Since COVID-19 can be spread before symptoms occur or when no symptoms are present, case investigation and contact tracing activities must be swift and thorough.
- Broad community engagement is needed to foster an understanding and acceptance of local case investigation and contact tracing efforts within each community.

- **Center for Disease Control (CDC)**

**This report is compiled as per the data obtained up to 31-05-2020, work of the team is ongoing.**

## CT Training

### Training of the team

Volunteer team had around 4-6 coordinators to manage work with different stake holders. Ministry of Public Health was responsible for formulating CT protocol in Kuwait and also for training.

- **Training of coordinators**

During 1st week of April 2020, 6 coordinators from SOHP and IDAK attended a training session on CT protocol conducted by the Public Health Department, MOH.

- **Training of Volunteers**

The trained coordinators then conducted online training for rest of the volunteers in 2 batches over webinars.

In all around 80 volunteers received training in MOH CT protocol. They were from different states of India with different linguistic background.

## Volunteer Roles/Responsibilities

| S.N. | Volunteer Type | Volunteer-Role |
|---|---|---|
| 1 | SOHP-MOH Coordinator for Process | Coordinating between MOH and SOHP, getting all the approvals, coordinating between volunteers and patients, work in quarantine centers, etc. |
| 2 | Field Coordinator + First Caller | Coordinating between IDAK and MOH, collecting lists from MOH, distribution of lists, submission of documents to Public health, initial tracing as the first caller |
| 3 | SOHP-MOH coordinator for lists | Coordinating between MOH and IDAK in getting the updated patient lists on regular basis after translation from Arabic to English |
| 4 | First Caller + IDAK coordinator | Coordinating and forming the team of volunteers among IDAK members, initial tracing as the first caller |
| 5 | Case distribution + Coordinator + Analysis | Coordinating among volunteers for distribution, collection and submission of documents to field coordination on regular basis, analysis of data and publication |
| 6 | CT Volunteer + Data Entry | Volunteer for contact tracing and data entry of the submitted files |
| 7 | First Caller | Initial tracing |
| 8 | CT Volunteer + List Updater | Volunteer for contact tracing and updating the patient information |
| 9 | CT Volunteer | Volunteer for detailed contact tracing |

- **Role of each volunteer was well-defined and every volunteer contributed to the fullest capacity.**
- **Out of self-interest, volunteers also took up the role of data-entry/analysis.**

## Work flow Plan and Implementation:

- Five steps work flow plan was prepared by the coordinators and all the stakeholders were made aware of the same.
- Same workflow was adhered to during the entire period of contact tracing.

**Contact Tracing Work Flow Plan**

**Step-1**
MOH Team Coordinator will provide contact of Indian Patients as a list or individual to Indian Coordinators

**Step-2**
Indian Coordinators will contact the patients and based on the language, will delegate volunteer for CT

**Step-3**
Volunteer will contact the patient and get the the CT done + Will also contact close contacts to confirm location.

**Step-4**
Will fill the form with details, convert to PDF and send to the Indian Coordinator as in Step-2

**Step-5**
Indian Coordinator will verify the entries and submit the forms back to MOH Coordinator as in Step-1

- **Data from the completed files was manually extracted and analyzed.**

## Uniqueness of this CT Model:

- Having the volunteers who can communicate in local Indian languages significantly reduced the stress levels of the patients.
- This helped in establishing excellent rapport between the patient and the tracer which is key for comprehensive CT.
- It was easy for the cases and contacts to understand the importance of 'isolation' and 'quarantine' respectively.
- Patients opened-up to the tracers and in many instances, this helped in identifying hidden cases, emerging hotspots and in many cases violations by the employer at the workplaces.
- Patients could communicate without any barrier and this made them express their needs which was promptly passed on to MOH.
- The close contacts understood the importance of prompt testing on the onset of symptoms.
- The team acted as a link between MOH and the COVID-19 patients/contacts.
- IDAK and SOHP forged a strong bond because of the ease of communication among the team.

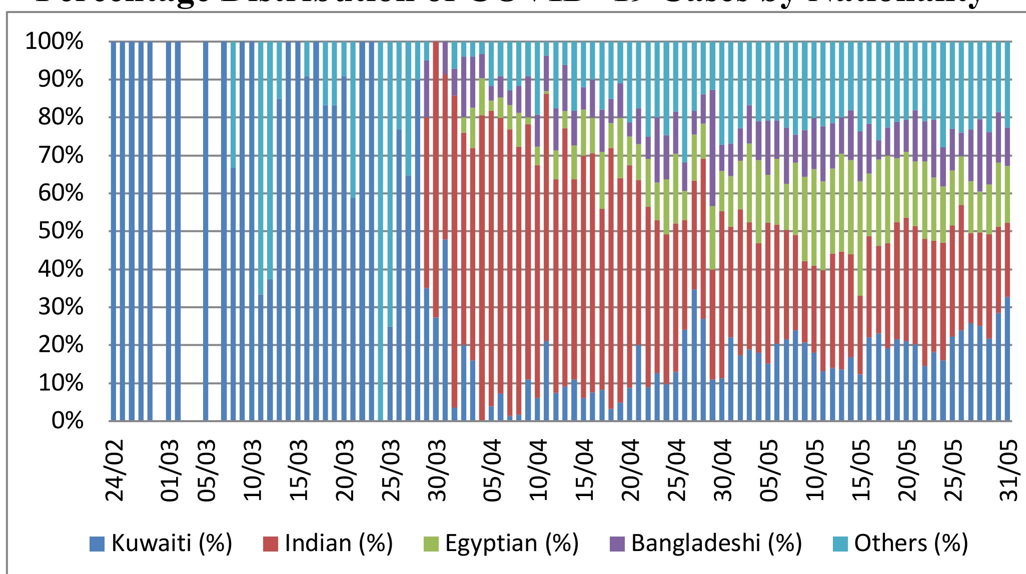
### Unique CT Model

- MOH, Kuwait should be thanked for implementing this CT model.
- It definitely helped in getting wider community involvement in the entire process.
- Voluntary services in some of the quarantine centers was one of the important offshoots of this model.
- Probably, Kuwait is the only country in middle-east to adopt this CT model for COVID-19 cases

## Important Results, Observations, Trends

- Team completed detailed tracing of 1360 COVID-19 cases from south Asia (Predominantly Indians) of which 76% were symptomatic*.
- 5681 close contacts were contacted by the volunteers and were advised on quarantining, of which 261(16%) became cases, according to the list provided (Secondary cases)*.
- Almost 70% of the cases and contacts were residing in shared accommodations*.
- There was delay in isolation of more than 60% of cases*.
- 216 (18%) of the total cases were Health Care Workers (HCWs) of which 35(16%) were secondary cases*.
- As the trends in the graph below suggests aggressive tracing work of the team from April 12 onwards, that play a role in stabilizing the cases especially among Indians.
- Almost 10-15% of mobile numbers were not traceable due to various reasons.
- Incomplete lists of cases were received, e.g., no cases from Hawally governorate, also the number of cases in the lists received from other governorates were less than that announced.
- Nationality-wise data on testing should provide better picture on the effectiveness of this contact tracing exercise.

**Percentage Distribution of COVID -19 Cases by Nationality****



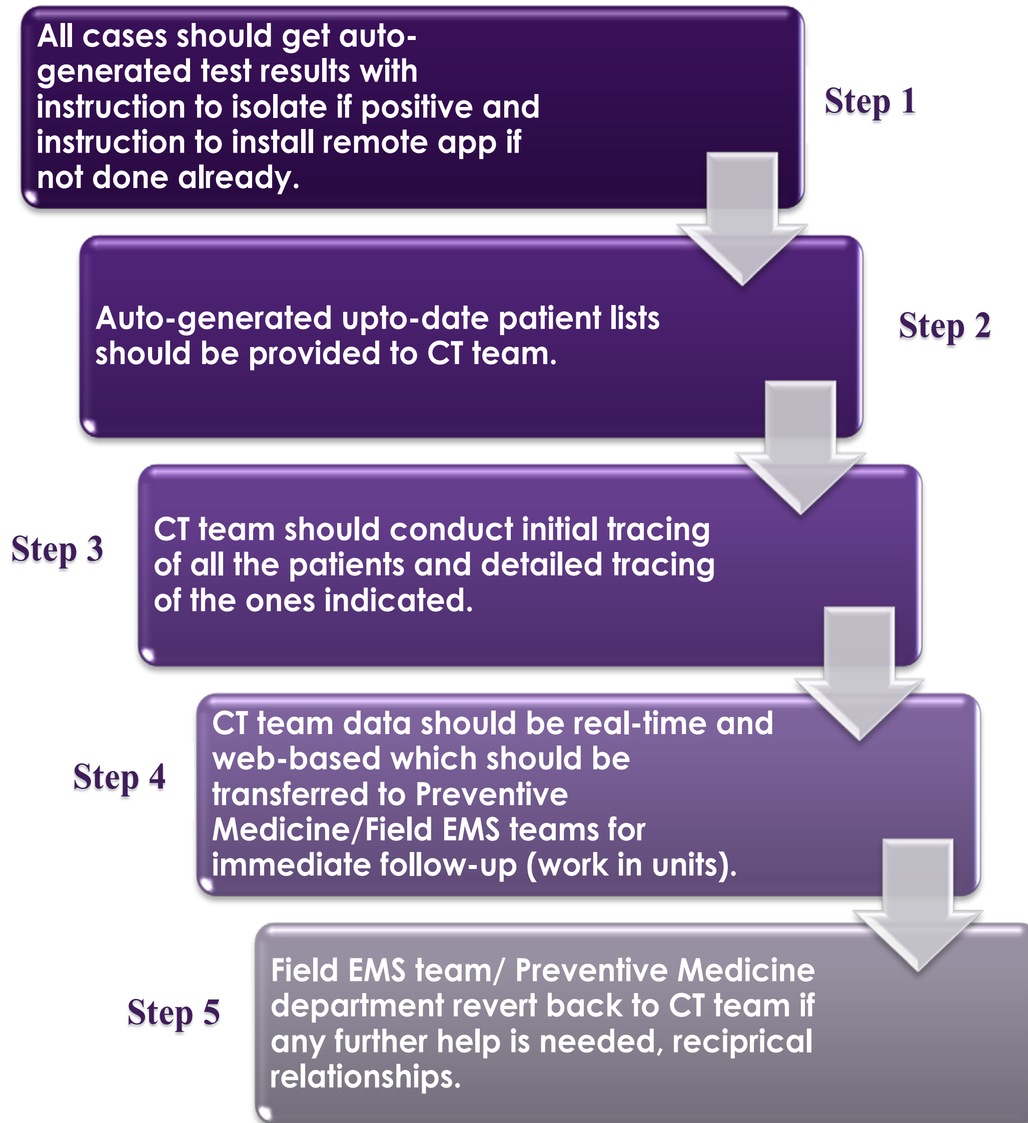

**- From CT Data up to 31-05-2020* ***- COVID-19 data from MOH up to 31-05-2020*

## Challenges and Recommendations:

| Challenges Encountered | Suggestions/Recommendations |
|---|---|
| **Communication Challenges** | |
| **Non-traceable telephone numbers.** | Mobile numbers should be linked to Civil ID and patient registrations should be with OTP. |
| **Lack of clarity in announcement of test results.** | It has to be done by text messages and messaging should be standardized when the patient is contacted. |
| **Delay/non-responsive toll-free numbers.** | Multiple toll-free call center options will not clog the communication system. |
| **Coordination Challenges** | |
| **Delay in generating patient lists.** | Test results should be autogenerated as lists with names in Arabic and English, minimal or no manual entries should be allowed to save valuable time and errors. |
| **Lack of coordination between CT and field teams.** | CT team should be directly connected with the field teams, detailed CT should be done only when needed. |
| **Time-lag between patient needs and policies.** | Feedback dynamic process from CT team should be taken into consideration in formulation of policies during outbreak, administration should always be ahead of the pandemic in its actions. |
| **Delay in transferring CT data into action.** | CT data should be real-time data and should reach field time in real-time. |
| **Process & Implementation of isolation/Quarantine Issues** | |
| **Delay in isolation of cases.** | Remote messaging of all patients immediately after test results are ready, Tele-app should be installed for all at the time of testing |
| **Delay/non-arrival of ambulances for shifting cases to isolation centers.** | App for ambulances is a must with GPS tracking to reduce pt anxiety and improve efficiency. |
| **Non-isolation of HCWs working in high-risk locations.** | HCWs in high-risk areas should be kept away from their family. |
| **Non-availability of space at isolation centers** | Institutional Isolation of cases should be prioritized. |
| **Violations-accommodations/Companies** | |
| **Non-regulation of shared accommodations.** | Regulations should be set on shared accommodations managed by individuals or companies. |
| **Violation of isolation/Quarantine policies by some companies.** | Companies should be given written instructions on isolation of cases and quarantining of contacts at the beginning of any outbreak. |

- **Contact tracing will be more effective when it is done with appropriate use of available technology for contacting cases, their contacts, and also for tracing them.**
- **Technology can only assist manual tracing but cannot replace it.**
- **Process evaluation and monitoring KPIs improve the efficiency where the time is crucial factor.**
- **CT call centers can help in streamlining the process.**

## Proposed 5 step CT Model for future:




- **Building a plan with distinctive coordination and communication tools, beforehand, will facilitate CT process, and therefore handling the spread of the epidemic in more efficient smooth pattern.**
- **All the stakeholders: Public Health, Preventive Medicine, EMS, etc., should involve from the very initial stage to identify the roadmap, set common goals, and prioritize the objectives of**
- **MOH can build multi-national CT team capacity from among the staff working within**

## Acknowledgements:

*On behalf of the team, we would like to thank,*

- **Dr. Buthaina Almudhaf, Assistant Undersecretary for Public Health, MOH.**
- **Dr. Meshal AlKhandari, Assistant Undersecretary for Dental Affairs, MOH.**
- **Dr. Fahad Alghimlas, Director of Public Health Directorate**
- **Dr. Mohamad AlSuiedan, Public Health Department, MOH.**

***For facilitating this work and supporting our team.***

- **Dr. Surendra Nayak Kapadi, President IDF, for providing 20 CT Volunteers and also for forming a team for tele-health consultation from IDF.**

***"Our Sincere Thanks to all the Cases and Contacts who cooperated with us"***

## Our Team

**Dr. Aishah AlSumait**
**MOH-SOHP**
(SOHP-MOH Coordinator for Process)

**Dr. J. Ariga**
**SOHP-Forsyth**
(Field Coordinator + First Caller)

**Dr. Roy Francis**
**Dental Administration-SOHP**
(First Caller + IDAK coordinator)

**Dr. Rajesh Alexander**
**Dental Administration-SOHP**
(First Caller + IDAK coordinator)

**Dr. Jagan Bhaskardoss**
**Kuwait University**
(Case distribution + Coordinator + Data Analysis)

**Dr. Shaheer Malik**
**Orthodontist-KOC**
(CT Volunteer + Data Entry in-charge)

**Dr. Sahar Behzadi**
**Dental Administration-SOHP**
(SOHP-MOH coordinator for lists)

**Dr. Fatma Al-Wuhaib**
**Dental Administration-SOHP**
(SOHP-MOH coordinator for lists)

**Dr. Pramod Menon**
**Dental Administration-SOHP**
(CT Volunteer + First Caller)

**Dr. Ajay V.**
**Smileinn Dental Center-Sharq**
(First Caller)

| IDAK CT Volunteers | | |
|---|---|---|
| **S.N.** | **Name** | **Place of Work** |
| **1** | Abbas Naharwala | Al Saleh Clinic |
| **2** | Abdul Qadir | Adan Dental Centre |
| **3** | Abraham Valliathu Eapen | Al Hekma Dental Centre |
| **4** | Aldie S Thuruthel | Jahra Dental Center |
| **5** | Ambesh Kumar Rai | Saray Clinic |
| **6** | Amritha Geevarghese | Not working |
| **7** | Angela Ray Chaudhuri | Jahra Dental Center |
| **8** | Anupama Mookherjee | Not working |
| **9** | Bankima | Salmiya |
| **10** | Biju Mahadev | Farwania speciality dental center |
| **11** | Devi Priya | Faculty of Dentistry, Kuwait University |
| **12** | Divya Koshy | SOHP-Ahmadi |
| **13** | Dolly Chopra | Farwaniya Dental Center |
| **14** | Fahad Ahmad | Jahra Dental Center |
| **15** | Fawwaz Khan | Ebtisama clinic Sabah al Salem |
| **16** | Gagan Deep Singh | Basma dental center |
| **17** | Garima Soni | SOHP-Hawally |
| **18** | George P Alex | Farwaniya Dental Centre |
| **19** | Hayfa Jamil | SOHP-Hawally |
| **20** | Jacob Kurien | SOHP-Hawally |
| **21** | Jal James K | Arkan jahra |
| **22** | Jaya P Daniel | SOHP-Jaber |
| **23** | Jayashree Dexith | Maidan Clinic |
| **24** | Jessly athirampuzha George | SOHP-Ahmadi |
| **25** | Jijan Sam | SOHP-Ahmadi |
| **26** | Jojen Thomas Mathew | SOHP-Farwaniya |
| **27** | Jyothy V Kuriakose | Not working |
| **28** | Krishna rao Kilaru | Benied Al ghar dental center |
| **29** | Latha Srinivasan | Alia International Hospital |
| **30** | Nadia Shoukat | SOHP-Hawally |
| **31** | Nikhath Shaikh | Ebtisama Clinic |
| **32** | Nithin Mathew Cherian | Amiri Dental Center |
| **33** | Niveditha Jarugula | SOHP-Central |
| **34** | Olive Prasad | Jahra Dental Center/ Abu Halifa |
| **35** | Prashanthy R Prasad | Arabiya Clinic |

| | | |
|---|---|---|
| 36 | Priya Satheesh | Jahra Dental Center |
| 37 | Roshila Mathew | Jahra Dental Center |
| 38 | Sadhiq Khan Pattan | KNG |
| 39 | Sahar Naeem | SOHP-Hawally |
| 40 | Satheesh Sankar Pillay | Jahra Speciality Center |
| 41 | Shaista Ali | Fahad Al Ahmed Polyclinic |
| 42 | Shashikala Savia | City clinic Mirqab |
| 43 | Soumya Joppan | Jahra Dental Center |
| 44 | Srikanth Reddy | Mallorca Medical center |
| 45 | Subu Thomas | British medical center |
| 46 | Sufiyan M Kalekhan | whatapp number + 91 9739780709 |
| 47 | Suja Mary John | SOHP-Jahra |
| 48 | Sumant Mishra | Bneid Al Gar Dental Centre |
| 49 | Sunil Kumar Gupta | Polyclinic Riggae |
| 50 | Tejasvini Vemula | Salmiya |
| 51 | Thomas Thomas | Medical consultation Centre |

| IDF CT Volunteers | | |
|---|---|---|
| **S.N.** | **Name** | **Place of Work** |
| 1 | Antony Sebastian Dcruz | PMR Hospital |
| 2 | ARUN JOSHI | Khaitan Clinic Farwaniya Hospital |
| 3 | Asok Bihari Deb | City Clinic Mirqab |
| 4 | Harshitha Vunnava | Not Working |
| 5 | Husain Shabbir Bugadwala | Al Dhamer centre,Jahra |
| 6 | Jaganath R C | Military Hospital |
| 7 | Lata Prasad | Physical Medicine and Rehabilitation Hospital |
| 8 | Monika Sai Panda | Metro medical care , Farwaniya |
| 9 | Nalini Ravichandran | Chest Disease hospital. |
| 10 | Philipose George | Al soor clinic |
| 11 | Rekha Rubin Gondane | Al Dhamer centre |
| 12 | Ayikarakath Sajna | Boushahri Clinic |
| 13 | Shabir Kunhammad N | Metro Medical Care - Farwaniya |
| 14 | Sudha Raveendran | YIACO MEDICAL CENTRE |
| 15 | Sujatha Krishna Kumar | Armed forces hospital |
| 16 | Sunny Joseph Varghese | Al Adan Hospital |
| 17 | Susovana Sujit Nair | KCCC presently in Zain quarantine |
| 18 | Venkata Sridhar Pasam | Shifa Al Jazeera |
| 19 | Venugopal Nk Chavan | KOC Ahmadi |
| 20 | Ullanat Ramesh Menon | Mowasat hospital |