

From compact “legacy”
To mega “technology”

By Dr. Leo CW KONG

Coordinator, medical posts of CYE QC, SKORC QC, Site X Surveillance Team & PBQC
Professional Development and Quality Assurance Service,
Department of Health , HKSARG

The word "MEGA" is written in a bold, dark blue, sans-serif font inside a bright orange speech bubble. The speech bubble has a tail pointing downwards and to the left. The background of the slide features decorative curved lines in the top-left and bottom-right corners.

MEGA

- **“MEGA” in terms of size:**
- **Chun Yeung Estate QC & Penny’s Bay QC**

“TECHNOLOGY”

- **The emergence of technology-based solutions**

Lady

MacLehose
Holiday Village
Quarantine
Centre
(LMHV QC)

**Only good for less than
50 confinees**

Chun Yeung
Estate
Quarantine
Centre
(CYE QC)

- **A public housing estate in Fo Tan, New territories**
- **Far from other residential areas**
- **5 blocks**

Chun Yeung
Estate
Quarantine
Centre
(CYE QC)

- 1 large QC, at CYE block 1, 2, 3 & 5, but 4 medical posts (MPs)
- Around 2000 units
- Each unit could accommodate 1 to 6 confinees, depends on the size of the units
- A single MP would have to take care of almost 1000 confinees

Chun Yeung Estate



Chun Yeung
Estate
Medical Post
Pre-



Chun Yeung
Estate
Medical Post
Post-



Chun Yeung Estate



**Penny's Bay
Quarantine
Centre
(PB QC)**

- **5 phases: 1, 2, 3a, 3b & 4**
- **Total 3500 modular integrated construction (MiC) units**
- **Total 7000 confinees**



Penny's Bay
Quarantine
Centre
Medical
Post
(PBQC MP)

Limitation of previous good practice

- 1 team for each medical post in CYE QC
- Reduced flexibility on staff mobilization
- Different practice adopted by different MP
- Communication and logistics problems

Change of manpower arrangement

- A MEGA team for all MPs in PBQC
- Pros:
 - 1. flexibility on utilization of manpower
 - 2. same practice among all MPs
 - 3. communication very much facilitated
 - 4. same arrangement on logistics

Limitation of previous good practice

- Vicious work cycles –
 - 1. collection of data
 - 2. management of data including:
 - i) data entry – electronic data
 - ii) filing of physical data records
 - iii) data transfer between data users by fax, emails, phone, etc
 - iv) maintenance of data including update, storage and retrieval of data, etc

Limitation of previous good practice

- **Labour intensive**
- **Time consuming**
- **Loads of paperwork and thus loads of paper used**

Limitation

of
previous
good
practice

practice

- **We need change of practice**

Solutions

- Work redistributed and workflow redesigned
- Merge admission work into surveillance programme
- Objectives:
 1. no need to deliver questionnaires, and thus no door-to-door visits, no blind door-knocking
 2. reduce the use of paper
 3. reduced use of PPE
 4. colleagues more available to other clinical duties despite massive admission of confinees
 5. better social distancing and thus better infection control

Technology based solution

- Prerequisite: timely and reliable data available for commencement of surveillance programme
- Determined to turn to other resources, especially those from technology-based arena
- Conclusion: we need a computerized system with interface for data retrieval from other work partners, so that:
 - list of confinees
 - surveillance programme materials
 - medical documents
 - data storage

Quarantine Centre Management System (QCMS)

- **Health Informatics and Technology Office (HITO) of Department of Health, HKSARG**
- Designed for extensive users
- For MPs:
 - 1. list of confinees
 - 2. availability of reliable demographic data of confinees
 - 3. automated generation of confinee list for DTS testing and label printing
 - 4. automated production of various medical documents
 - 5. reduced the need, delay and failure of data transfer between service centres as the database is accessible via internet

Quarantine Centre Management System (QCMS)

The screenshot displays the Quarantine Camp Management System (QCMS) interface. At the top, it is labeled "RESTRICTED Quarantine Camp Management System" and identifies the user as "Dr. KONG Che-wan" with site "PBQC, PBQC34". The search criteria are set to "Penny's Bay Quarantine Centre Phase 1 and 2" and "Phase: ALL". The reference date is "03/12/2020", with options for "Day 2 from Check in date", "Day 10 from Check in date", and "Day 12 from Check in date". A "Document No:" search field is also present. The "Confinee List" section shows "Now processing with D2 DTS list" and includes buttons for "Print Lab Form" and "Print Label". The table below has columns for QID, Group ID, Lab Code, Name, Doc. Type, Doc. No., Age/Gen, Status, QC Site, Room No., QO Start Date, QO End Date, Check in Date, Planned out Date, Actual out Date, and View. The table is currently empty, showing "No records found." and "0-0 of 0 records". The Windows taskbar at the bottom shows the date as 02/12/2020 and time as 16:17.

Issues

- **Web-based self-reporting surveillance system**
- **Real-time surveillance cum clinical assessment system**
- **Technology-based solution for collection and delivery of materials**

Robot?!



Coronavirus: Tunisia deploys robots to enforce lockdown

Bed allocation of confirmed COVID-19 infection

- **COVID-19 ADMISSION ALLOCATION SYSTEM (CAAS)**
- **Pros:**
 - 1. reduced paperwork
 - 2. less data transfer
 - 3. easy to trace progress of bed allocation
 - 4. easy to check the exact bed allocation information
- **May consider creating an interface between QCMS and CAAS**

Evolution

- ***Changes with changes***

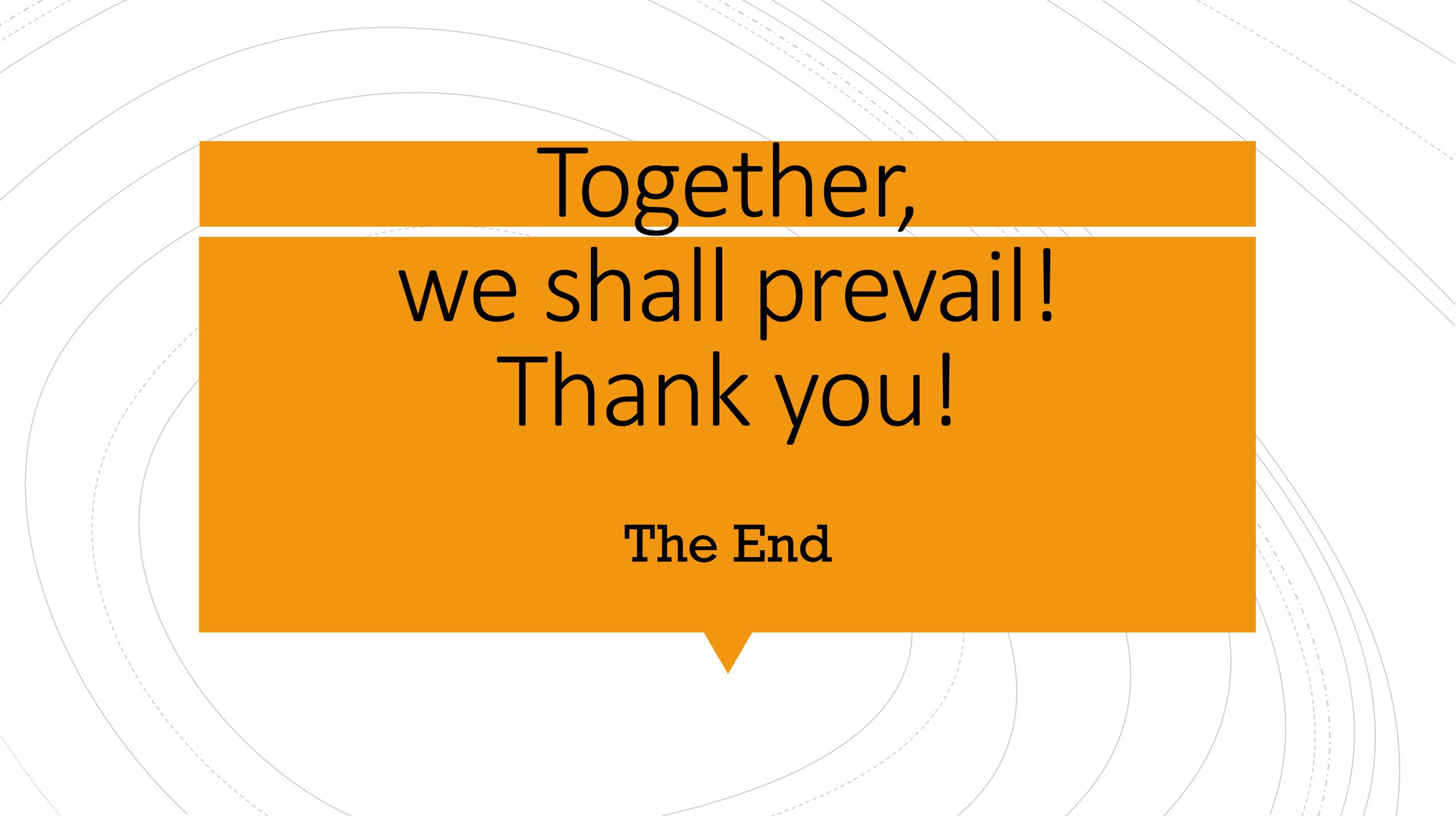


Thanks!

- Heartfelt thanks to different services, divisions, offices and branches of our Department and fellow organisations
- Indebted to colleagues, current or retired, from all Bureaus and Departments
- Appreciate the support from Seniors and Directorates
- Grateful that we have all Hong Kong people joining us the FIGHT of COVID-19 pandemic

Reminiscence

- Video

The background features a series of concentric circles in light gray, some solid and some dashed, creating a ripple effect. In the center, there is a large orange speech bubble with a white outline and a small tail pointing downwards.

Together,
we shall prevail!
Thank you!

The End