



Experience of Conducting the 2021 Population Census amid the COVID-19 pandemic in Hong Kong, China

November 2022



香港特別行政區 政府統計處
Census and Statistics Department
Hong Kong Special Administrative Region



Overview of COVID-19 pandemic in Hong Kong

COVID-19 in Hong Kong

- Started in Jan 2020
- 5 waves of outbreaks (Jan, Mar, Jul and Nov 2020 and Dec 2021)
- Total number of cases: ~2m
- % of population with 3rd vaccine dose: >80%

Government's latest strategy

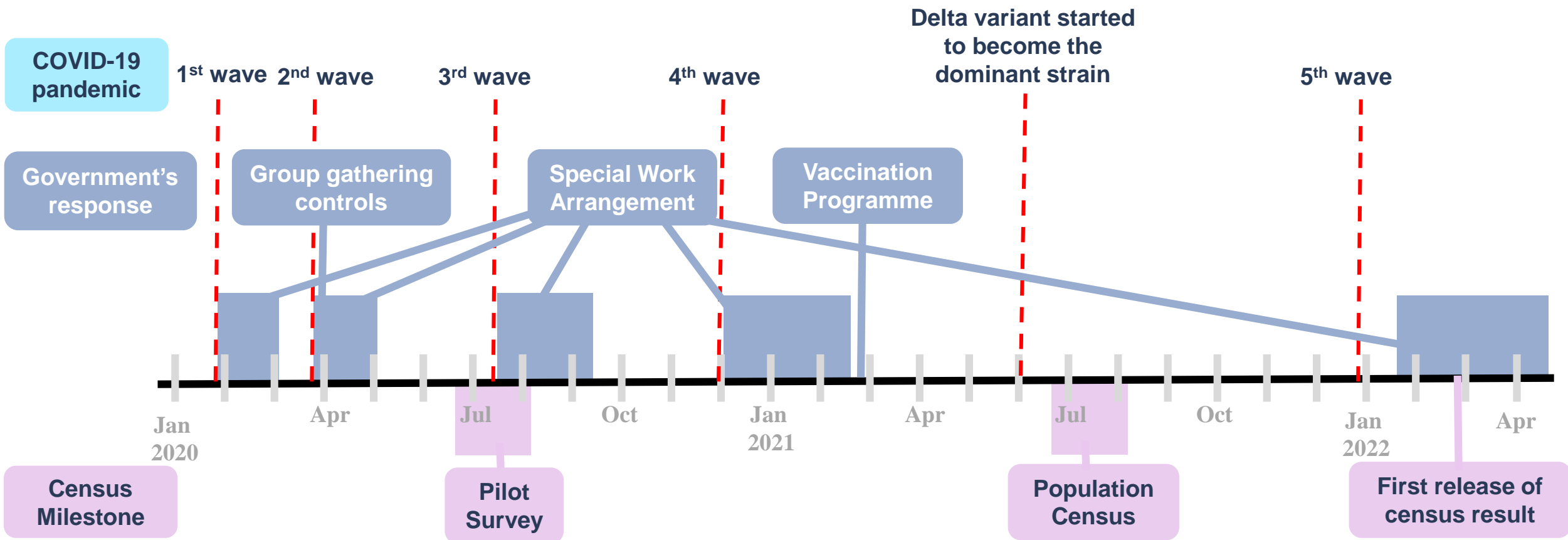
- **Reduce critical cases and death**
- **Protect high-risk groups**
- **Balance between epidemic risks and economic needs**
- **Relax measures in phases**

Example measures adopted since COVID-19 outbreak

- Social distancing
 - Mandatory mask-wearing
 - Special work arrangement
 - Group gathering control
 - “LeaveHomeSafe”
- COVID-19 vaccination
 - Free vaccination
 - Vaccine Pass
- Compulsory quarantine
- Compulsory testing



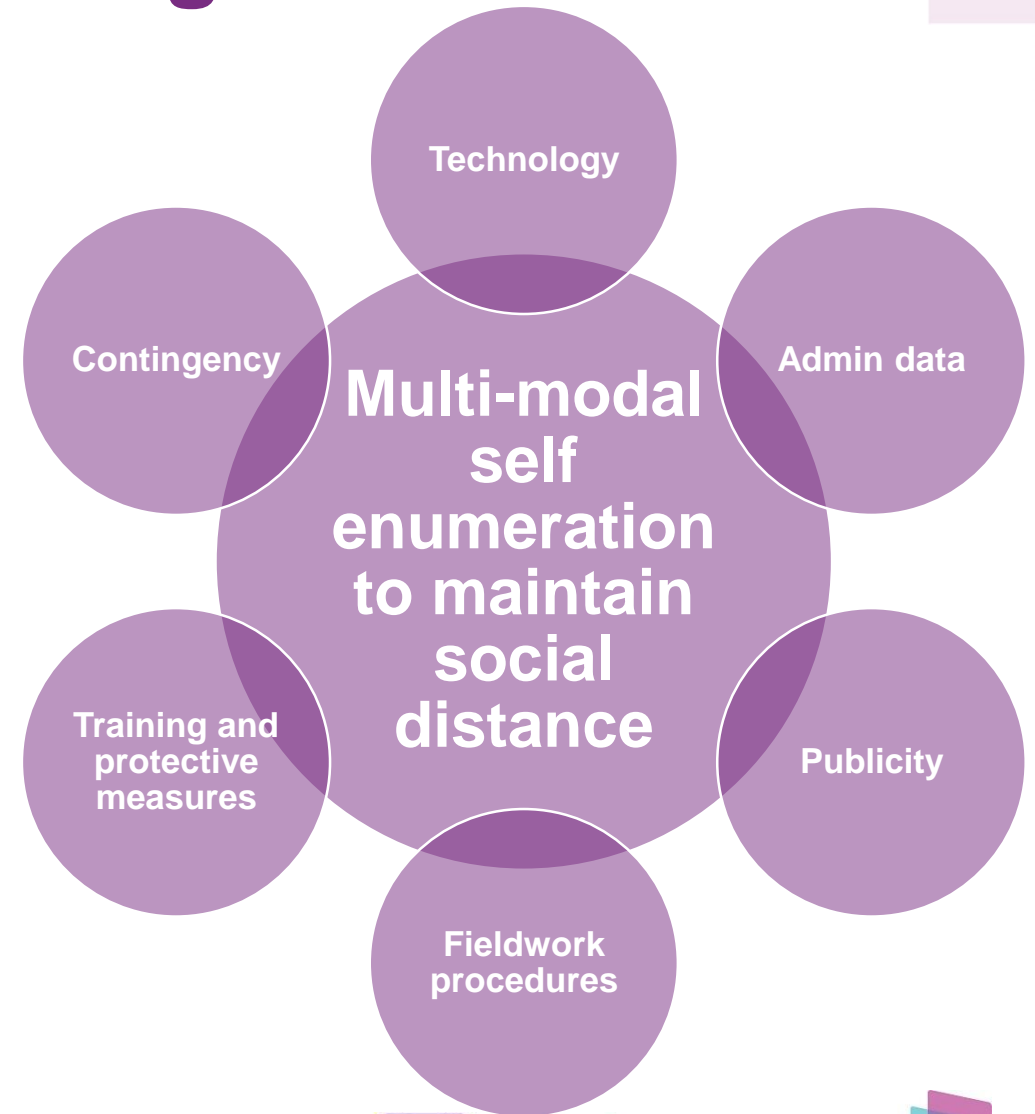
Timeline of 2021 Hong Kong Population Census



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Goals and strategies



Results

ZERO COVID-19 cases for enumerators

- High take-up rate (>85%) of non-face-to-face enumeration modes: Online Questionnaire, Postal Questionnaire and Telephone Interview

85% response rate

- On par with 2011 Population Census and 2016 Population By-census

ALL statistical products and services delivered as scheduled

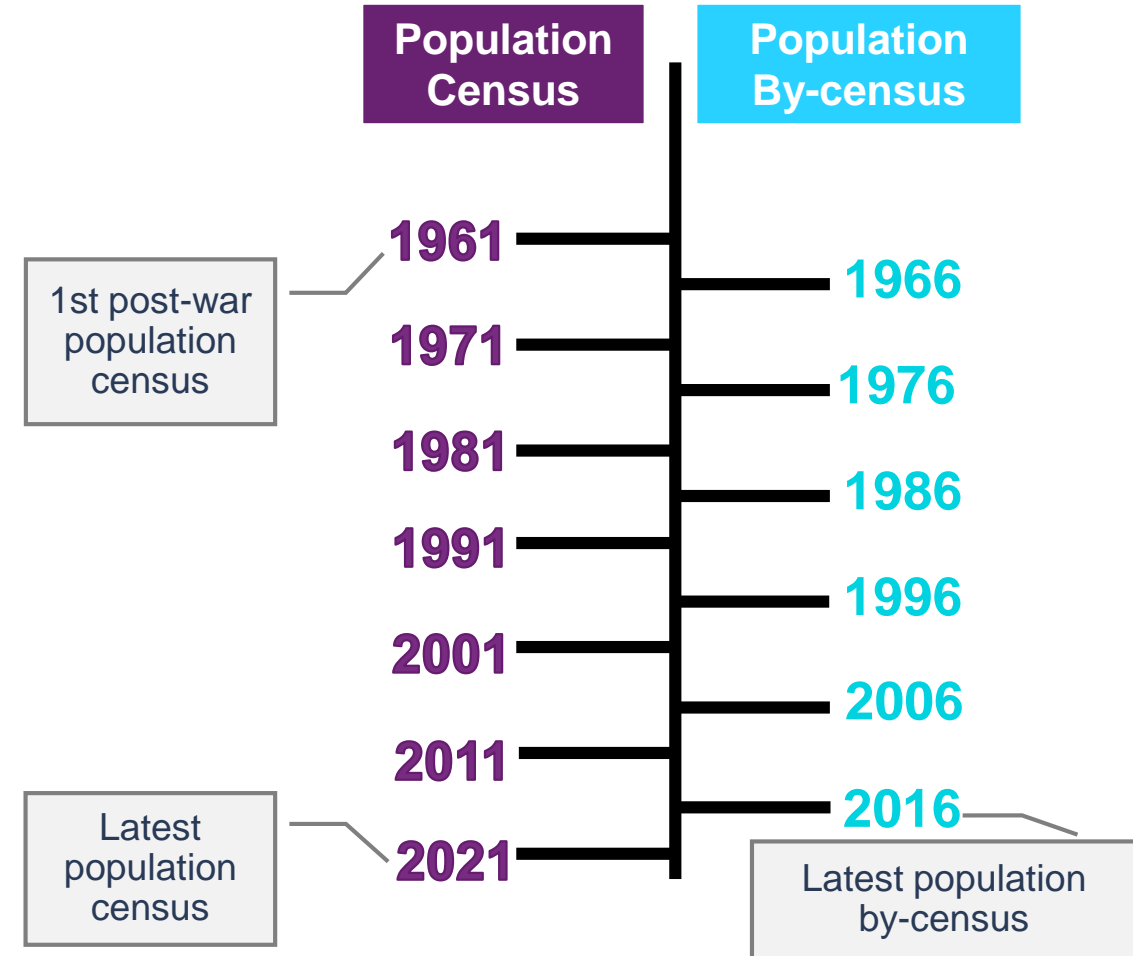
- Summary results released in Feb 2022, following by other products and services including Main Tables, District Profiles, Interactive Data Dissemination Service, microdata service, etc.



Background of censuses / by-censuses

It is an established practice since 1961 for Hong Kong to conduct a **population census** once every 10 years.

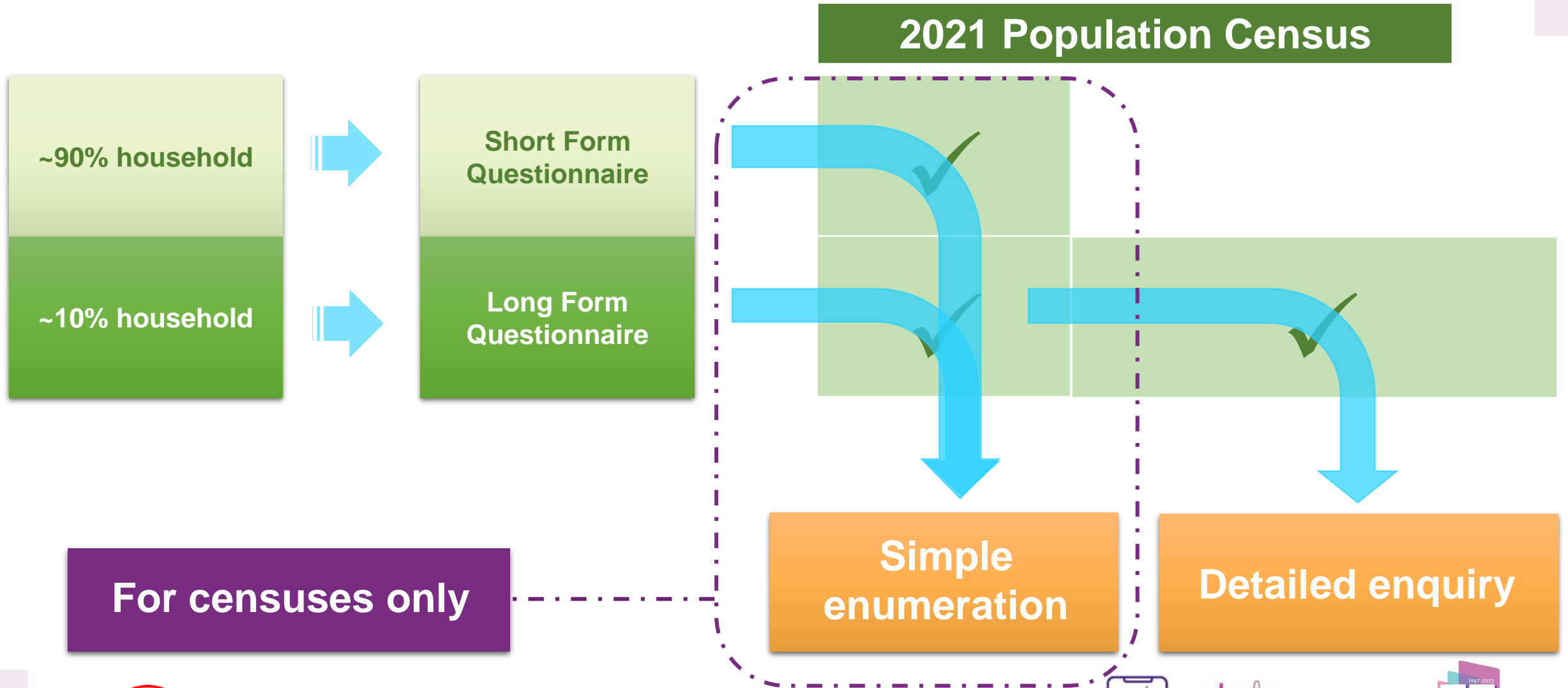
By-censuses are conducted in the middle of the intercensal period.



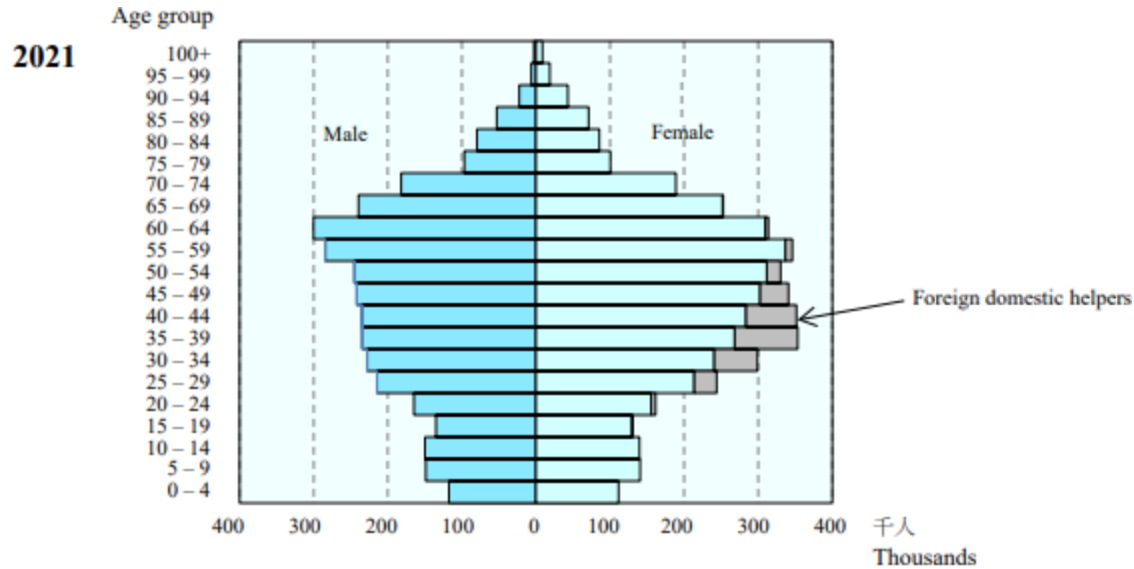
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Long form / Short form design



2021 Population Census: Hong Kong at a glance



- Population: 7.41 million
- Median age: 46.3
- Proportion of persons aged 65 and above: 19.6%
- Average household size: 2.7

- Land area: 1 100 sq. km, in 18 District Council districts
- Population density: 6 800 persons per sq. km, 59 700 for most dense district



Household broadband penetration rate (July 2022): 99.3%



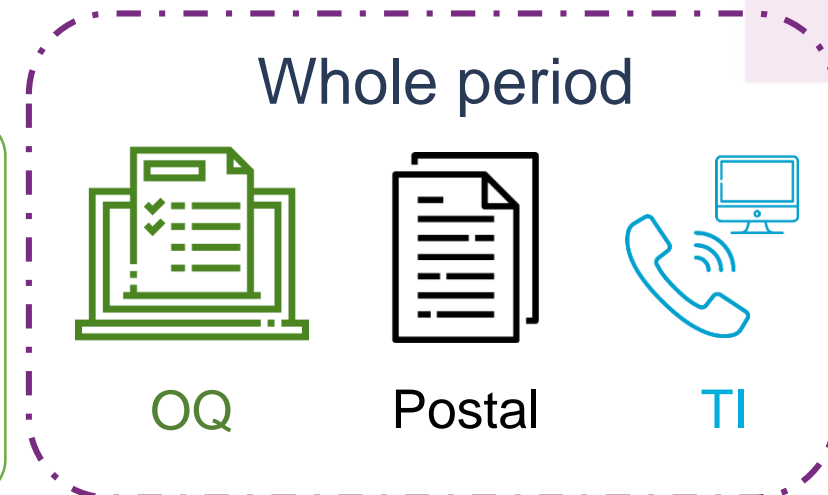
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Overall Strategy: Multi-modal data collection approach

1st Phase: 23 June – 17 July 2021 (25 days)

- Self-enumeration
 - Online questionnaires (OQ)
 - Postal returns of “short form” questionnaire
- Contact the Census Service Centres
 - Telephone interviews (TI)



2nd Phase: 18 July – 4 August 2021 (18 days)

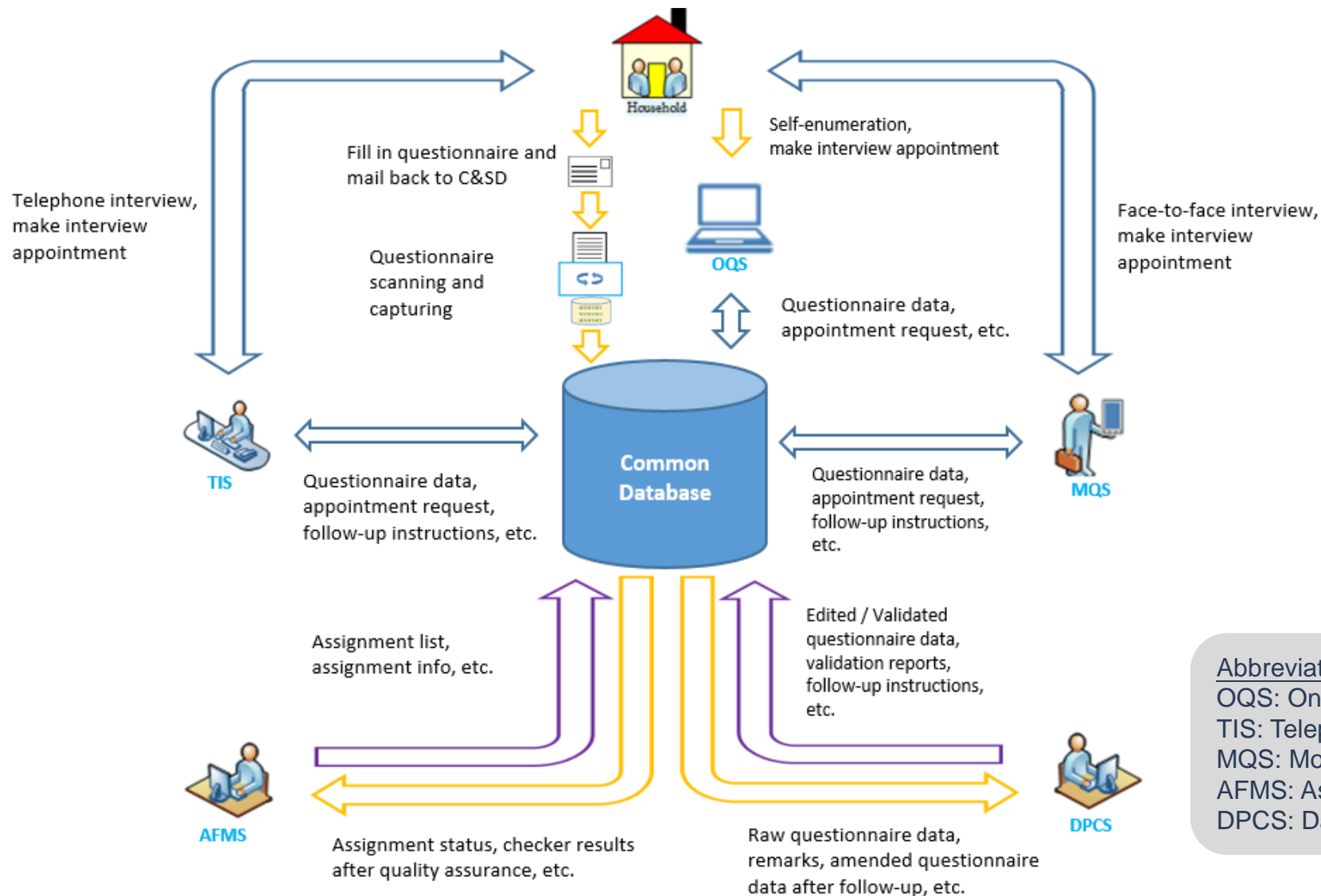
- Enumerators will visit households that have not completed questionnaires
 - Using mobile tablets to assist in face-to-face interviews
- OQ, postal returns and TI still available



Strategies to cope with COVID-19 outbreak



Shared database for multi-model data collection approach



- ✓ Start / Continue questionnaires anytime, anywhere
- ✓ Instant status update
- ✓ Follow up with respondents during data collection period

Abbreviation
 OQS: Online Questionnaire Sub-system
 TIS: Telephone Interview Sub-system
 MQS: Mobile Questionnaire Sub-system
 AFMS: Assignment and Fieldwork Management Sub-system
 DPCS: Data Processing and Checking Sub-system



Enhanced online questionnaire

User experience

- Responsive web design
- QR-code
- Auto question branching
- Logout anytime with questionnaire saved
- Other features: code-search, “i” button, instant validations, reminders, self-help password retrieval, separate accounts, appointment booking, etc.

System reliability

- Support concurrent access of over 10 000 users
- Online waiting room with estimated waiting time
- Dual-site active-active architecture

Data security

- New generation Government Cloud
- Round-the-clock IT security support
- Prevention and protection from cyber-attack



Enhanced telephone interview

Function

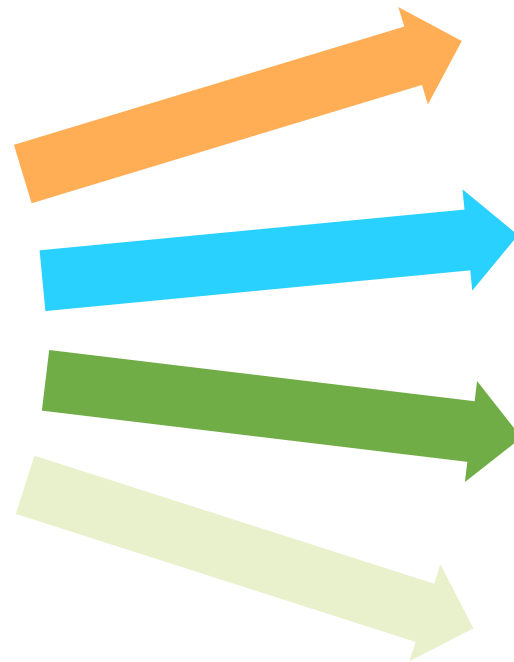
- Conducting TIs
- Answering enquiries
- Booking appointments
- Clarifying dubious reported data

Feature

- Two Census Service Centres in different locations
- 600 operator lines: fourfold of that for 2016 Population By-census
- Available daily from 9:00 a.m. to 10:30 p.m.
- Service assistants capable of speaking Urdu or Nepali



Use of admin data on quality assurance



Occupancy of quarters

Age-sex distribution

Geographical distribution

Population size in institutions



Public strategy: Focusing OQ and TI

- Online Census: Convenient, Secure and Green



The banner features a central laptop displaying the online census website, a smartphone with a padlock icon, and a green cartoon character wearing a headset. To the left is the '2021 Population Census' logo with a city skyline and people icons. To the right is a speech bubble with the hotline number '18 2021' and a green cartoon character. Below the speech bubble is the slogan '人口普查網上做 方便保密又環保' and the text 'Online Census: Convenient, Secure and Green'. The website URL 'www.census2021.gov.hk' is at the bottom left.

www.census2021.gov.hk

普查熱線 Hotline : 18 2021

人口普查網上做
方便保密又環保

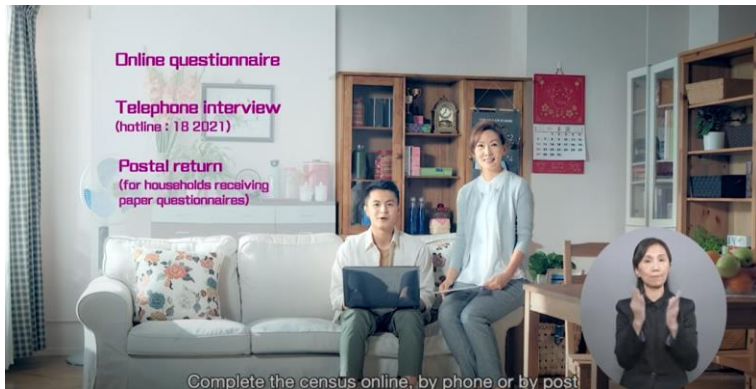
Online Census :
Convenient, Secure and Green



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Public strategy: Diversified publicity approach



Announcements / Short videos in TV, radio and social media



Publicity on transport (e.g. tram, metro, bus, etc.)



Roving exhibition in arcades, government premises and libraries



Outdoor publicity



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Public strategy: Customised publicity approach

Elderly

- Poster with bigger words in elderly centres
- Souvenirs with magnifying bookmark with the easy-to-recall hotline “18 2021”

Persons of different ethnicities

- Publicity materials, including thematic websites, in different languages
- Soliciting cooperation from Non-governmental Organisations (NGOs)

Households living in subdivided units

- Soliciting cooperation from NGOs

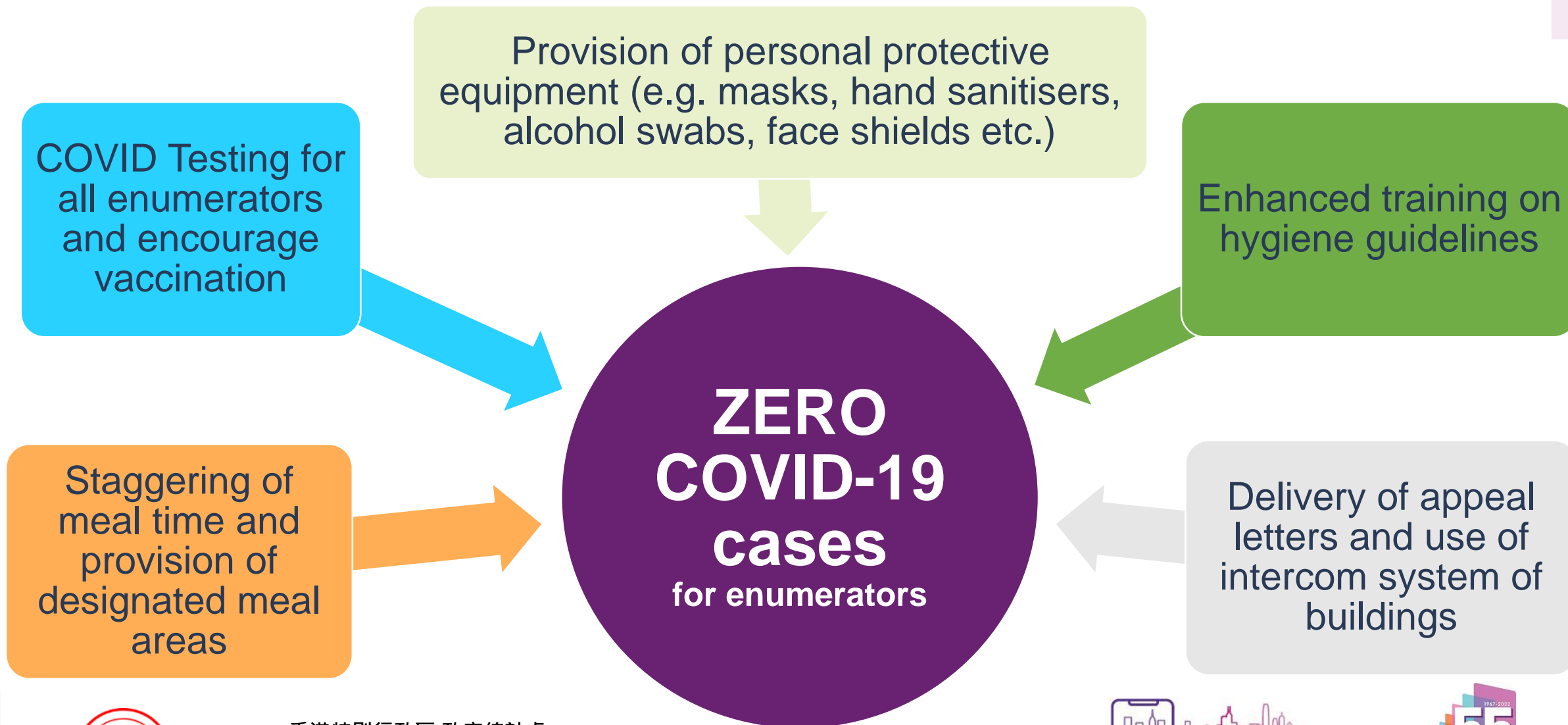


Fieldwork procedures

- Use of reminder / appeal letters / SMS / emails to solicit self-enumeration and TI
- Utilisation of TI capacity as far as possible, such as follow up of partially enumerated cases
- Employing enumerators of different ethnicities to improve response rate across different ethnic groups



Training and protective measures for enumerators



Contingency plan

- Extension of data collection period, if necessary
- Suspension of face-to-face enumeration if the pandemic worsens
- Back-up telephone centre and office sites in case of outbreak in census office



Lessons learnt for the next round of census

- Short data collection period is subject to operational risks (e.g. lockdown due to pandemic)
- Huge temporary workforce may be difficult to manage and train



Future development

Re-engineering of population census / by-census in 2026 and beyond

- Major features
 - Expand the data collection period
 - Downscaling full enumeration to a large sample
 - Use more admin data
- Benefits
 - Reducing the risks associated with the huge operation of a Population Census
 - Improving the quality of population figures
 - Reducing the respondent burden and cost for conducting a full enumeration



Thank you



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