



中国疾病预防控制中心  
CHINESE CENTER FOR DISEASE CONTROL AND PREVENTION

# Prevention and Control Measure of COVID-19 in China

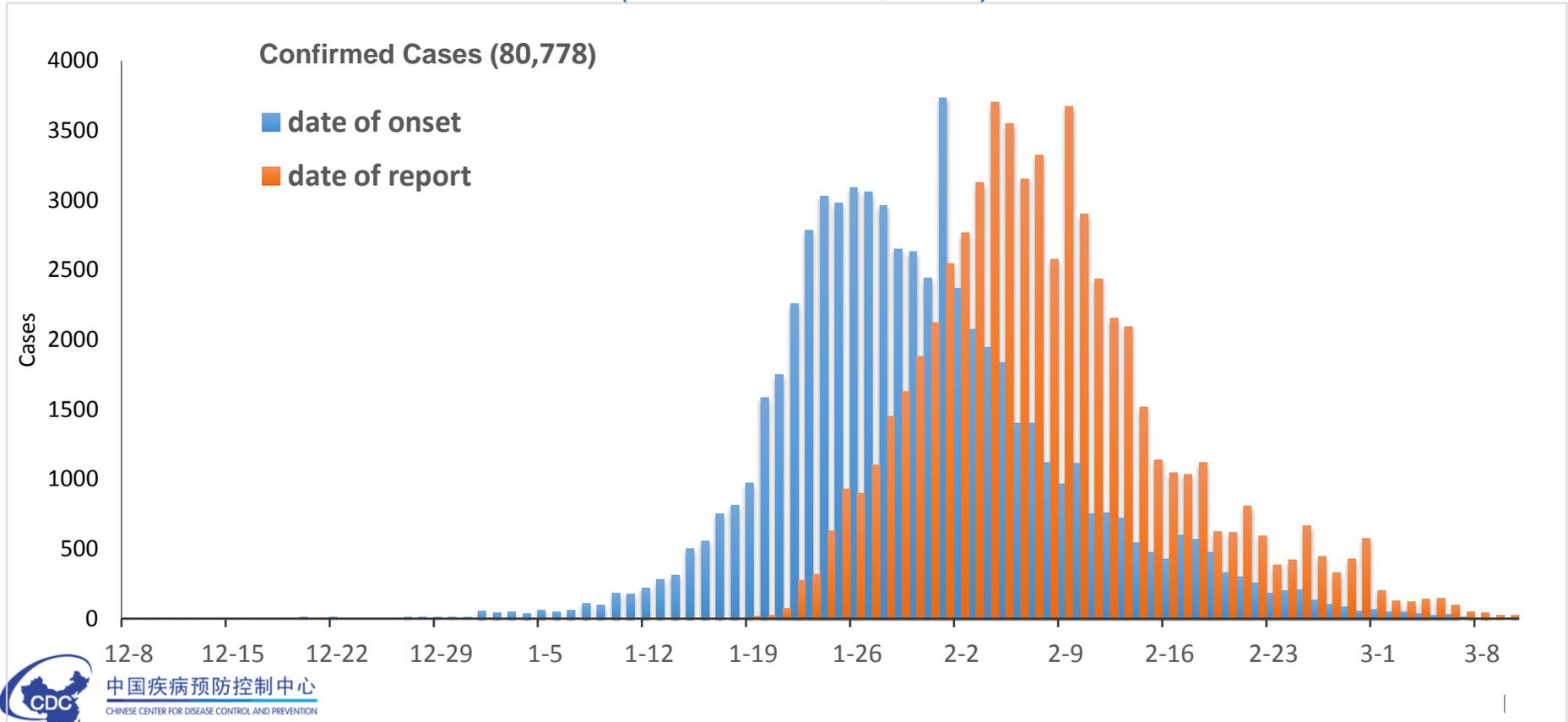
**Chinese Center for Disease Control and Prevention**

**March 12<sup>nd</sup> , 2020**



# Epidemic curve of COVID-19 in China

( as of March 10, 2020)



# Preliminary understanding of disease features

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- **Transmission capacity**

- COVID-19 is mainly transmitted through contact with respiratory droplets
- Majority of onwards transmission is occurring around the time of illness onset in an infected person, and likely pre-symptomatic transmission was also identified.
- $R_0$ : 2-3, serial interval: 6 days.
- Incubation periods: 1-14 days
- Secondary incidence rate: 5% (symptomatic transmission), 0.6%(asymptomatic transmission)

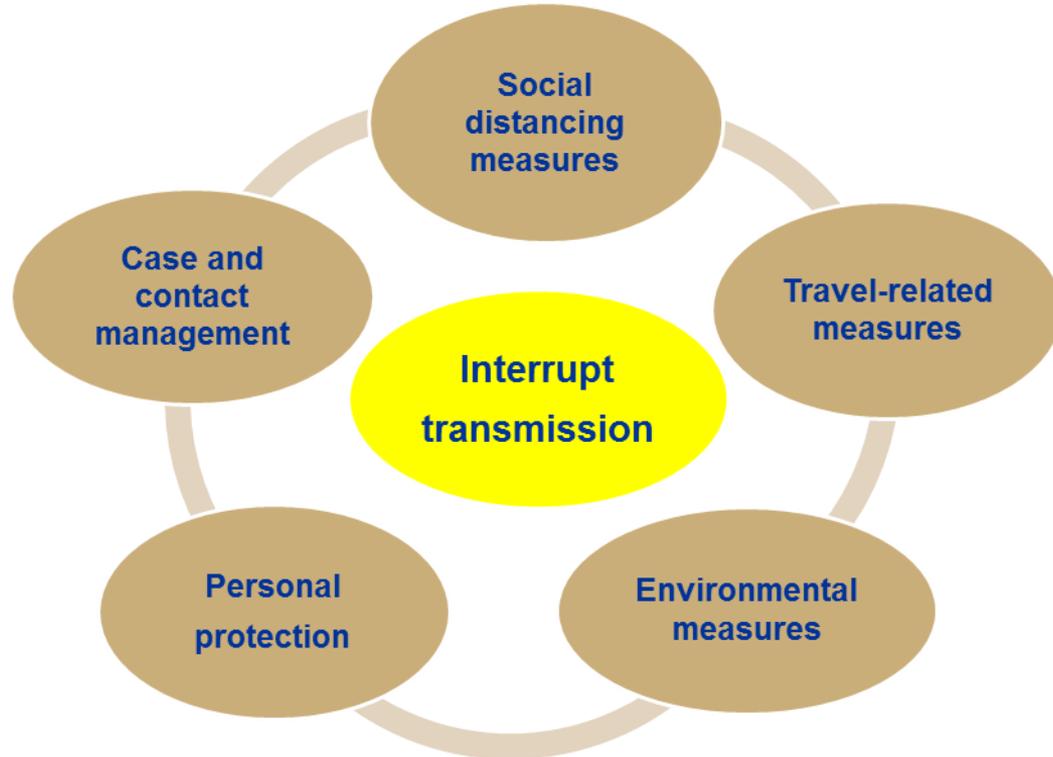
- **Disease severity**

- About 80% are mild/moderate, 15% severe, 5% critical
- Case fatality risk: about 6% in Wuhan city, 0.8% other areas



# Containment Strategy in China

## Non-pharmaceutical intervention measures



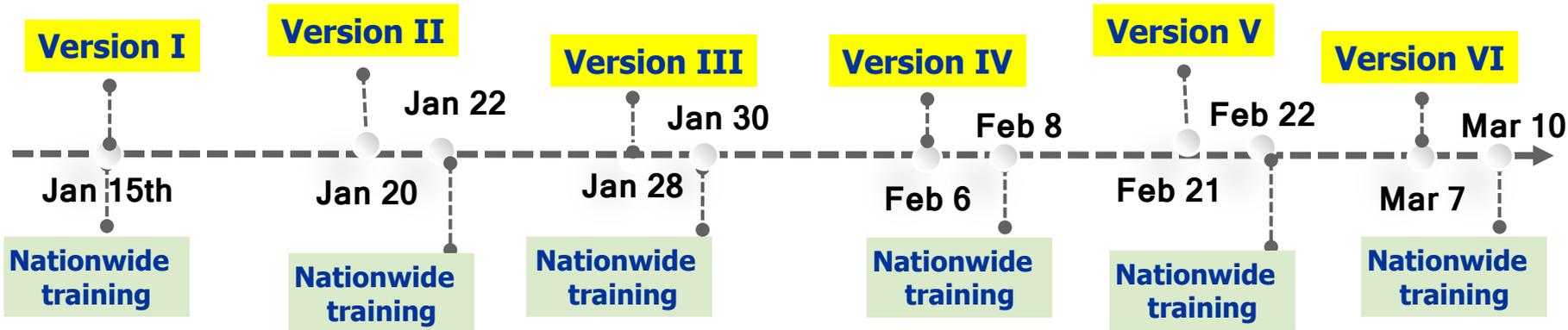
# Tailored control measures at varied risk levels

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- **Low-risk** areas: strictly prevent importation.
- **Medium-risk** areas: to prevent importation and stop local transmission.
- **High-risk** areas: to stop local transmission, prevent exportation, and implement strict prevention and control measures.
- Timely risk levels adjustment mechanism.

# National prevention and control guidelines for COVID-19

statutory infectious disease  
management



## Components:

- Case detection and management
- Case and cluster investigation
- Contact tracing and management
- Laboratory testing
- PPE and disinfection

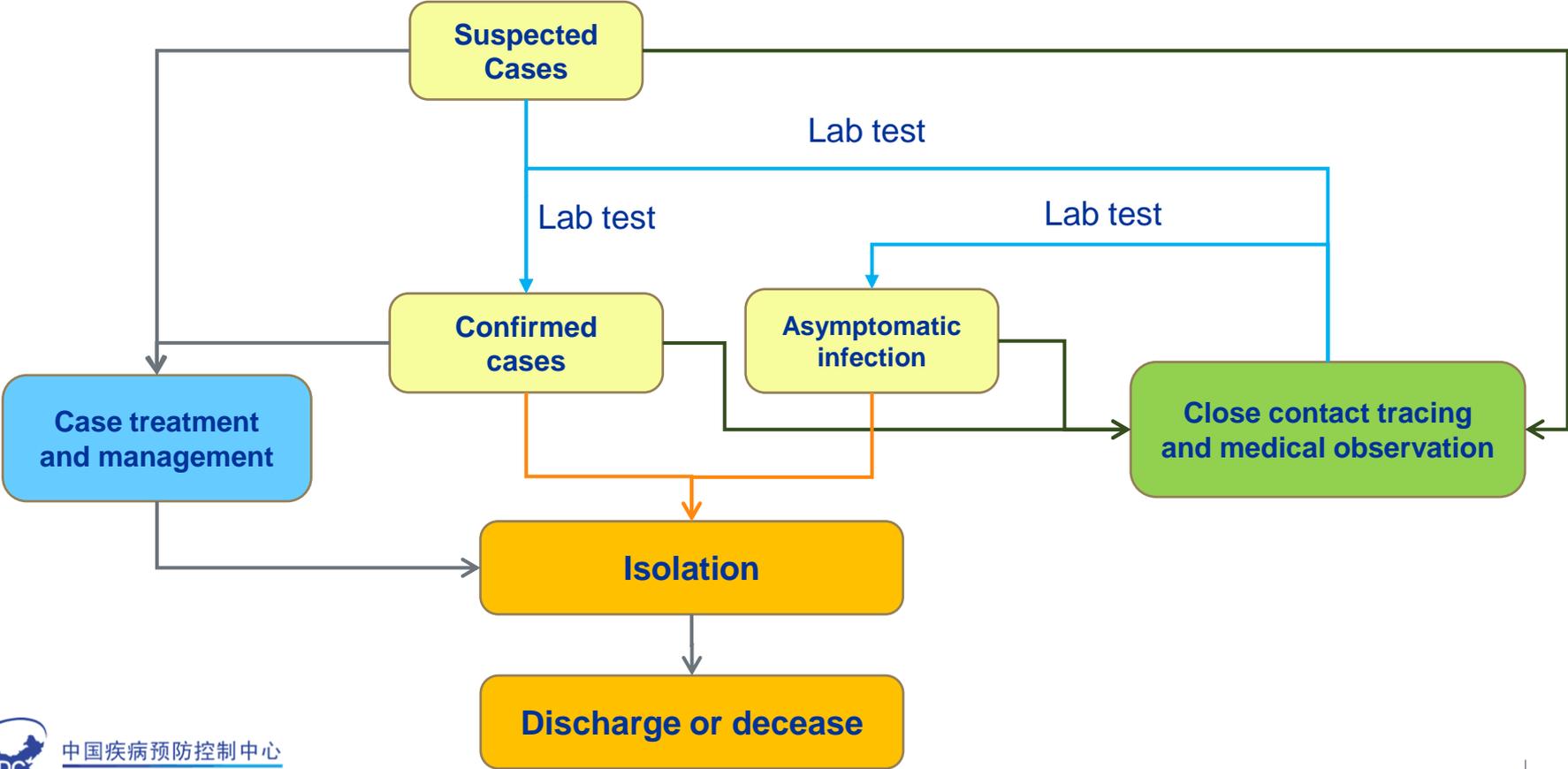
## Four E key measures:

- E**arly detection
- E**arly reporting
- E**arly isolation
- E**arly treatment

Rapid  
detection &  
response



# Case & contact detection and management workflow



# Surveillance case definitions

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**Suspected Cases** 01

**Confirmed Cases** 02

**Asymptomatic  
Infected Persons** 03

04 **Cluster of Cases**

05 **Close Contacts**

*The latest English version of guidelines will be published soon in China CDC Weekly journal.*



# Early and active detection of cases

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1

Healthcare facilities at all levels

2

Existing surveillance networks for PUE, ILI and SARI

3

Health status monitoring of close contacts

4

Port health quarantine for the imported cases detection

5

Primary level organizations or employers



# Case reporting requirement

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## Case reporting

- Suspected cases, confirmed cases, or asymptomatic infected individuals were required to report
- Web-based reporting system **within 2h** after diagnosis
- Information checking by CDCs **within 2h** after receiving the report

## Updating reports

- When suspected cases confirmed or excluded
- When clinical severity changed with the progression of illness
- When status of asymptomatic infected individuals changed
- when died of COVID-19, date of death need to be updated

## Reporting of public health events

- The first COVID-19 confirmed case or cluster in a county/district
- Web-based emergency events reporting system **within 2h**
- The emergency level should be updated based on investigation findings and assessments



# Case management

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- Isolation and treatment at designated hospitals
  - **Suspected cases** should be isolated in a single room.
  - **Confirmed cases** and **asymptomatic infection** could be isolated in a same room.

# Case discharge criteria

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- **Suspected cases** could be discharged only after their nucleic acid testing are negative for respiratory pathogen **twice consecutively** (sampling interval being at least one day), and **both IgM and IgG antibody test are negative 7 days since illness onset.**
- **Asymptomatic cases** could be discharged only after their nucleic acid testing are negative for respiratory pathogen **twice consecutively** (sampling interval being at least one day).
- **Confirmed cases** could be discharged when meeting with the following criteria:
  - body temperature is back to normal for more than three days;
  - respiratory symptoms improve obviously;
  - pulmonary imaging shows obvious absorption of inflammation;
  - and nucleic acid tests negative for respiratory tract pathogen **twice consecutively** (sampling interval being at least one day).



# Contact tracing and management

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- **Close contact tracing**

- Close contact: Any person who had contacted (within 1 meter) with a confirmed or suspected case since **the date of illness and two days before illness onset**, including:
  - Any social or health care worker, who provided direct personal or health care of a symptomatic confirmed case of 2019-nCoV or within the same closed setting
  - Any person who has resided in the same household (or other closed setting) as the cases
- Asymptomatic infection's contact: Any person who had contact (within 1 meter) with an asymptomatic infection **within 2 days before sampling**.



# Contact tracing and management

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- **Close contact management**
  - Perform medical observation at home or at designated places (i.e. hotel) .
  - Duration: **14 days** from the last contact with the cases or asymptomatic infection.
  - Body temperature and health status examination are performed **twice a day** by community health care workers.
  - The unnecessary outdoor activities are not permitted, and living accommodation is supplied by local community.



# Specimen collection and lab testing

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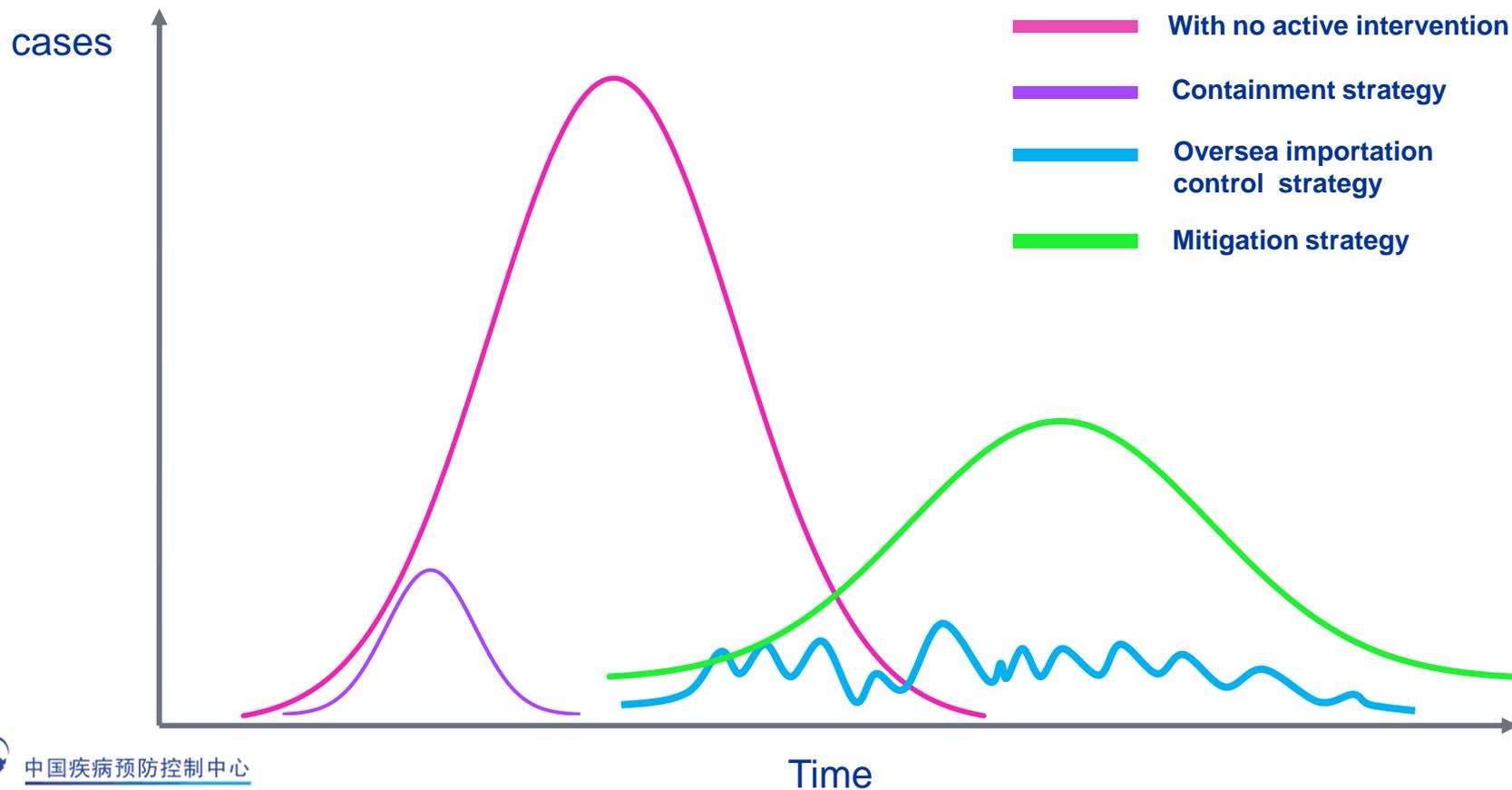
- **Healthcare facilities receiving COVID-19 cases should collect relevant clinical specimens timely.**
  - upper respiratory tract specimens
  - lower respiratory tract specimens
  - stool specimens/anal swab
  - blood and serum specimens, etc.
- **Feedback the test result within 12 hours**
- Specimen collection, transportation, storage and testing should be conducted strictly in accordance with the requirements set out in the lab testing protocol issued by China CDC.
- **Verification and confirmation**
  - All the original specimens of clusters with five or more COVID-19 cases in each region
  - Oversea imported cases

# Public health communication

General population	Special group	Specific places	Personal protection	Travel-related
<ul style="list-style-type: none"><li>• Hand hygiene</li><li>• Respiratory etiquette</li><li>• Face masks</li><li>• Disinfection</li><li>• ...</li></ul>	<ul style="list-style-type: none"><li>• The elder</li><li>• Patients with chronic diseases</li><li>• Maternal prevention</li><li>• Students returning to school after winter vacation</li><li>• ...</li></ul>	<ul style="list-style-type: none"><li>• Family</li><li>• Kindergarten (or school)</li><li>• Nursing homes</li><li>• Private cars</li><li>• Subway and bus</li><li>• Airline</li><li>• ...</li></ul>	<ul style="list-style-type: none"><li>• The selection and use of masks</li><li>• How to deal with these masks</li><li>• How to wash your hands correctly?</li><li>• Home disinfection</li><li>• ...</li></ul>	<ul style="list-style-type: none"><li>• Travel health advice</li><li>• What should a person with a history of living or traveling in an endemic area do?</li><li>• ...</li></ul>

China CDC has developed a total of 38 interim guidelines for the public population

# Simulation scenario of epidemic with different response strategies





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***Thank You***

