COVID 19
Pandemic Preparedness and Response

Vietnam case study – by Assoc. Prof. Pham Quang Thai
Framework for COVID-19 Country Case Studies

- Socio-economic impacts of the COVID 19 pandemic
- Preparedness
- Response
- COVID-19 impact on the progress of UHC and sustainability
- Lessons for other countries
Case Study Highlights from Vietnam

Current status

- **Cumulative number of cases:** 10,742,891 (11% pop) – recently daily ~500 – 800 patients
- **Cumulative number of deaths:** 43,977 (0.4% CFR) - recently daily <10
- **Vaccination rate:** 99.59% of the population from 18 years of age at least once, 95.36% of fully vaccinated and ~35% got third doses

Key findings

- In Vietnam, COVID-19 also challenged the whole economy as well as the healthcare system.
- The government responded quickly and moved decisively with stringent measures following the identification of the first COVID-19 case and has taken various effective measures to prevent its spread. The policy also changes accordingly from a zero COVID policy to fully open for development based on evidence
- Transparency and the centralized disaster response system have facilitated intergovernmental risk communication and coordination
- Our evidence provided shared lessons from a country of successful COVID-19 prevention and control as well as recommended the next stage to overcome the impact of this pandemic on the economy in Vietnam that could be useful for other nations
Current situation of COVID-19 in Vietnam
An Endemic disease?

Vietnam has the 12th highest number of infections out of 227 countries and territories, and the number of cases per million people ranks 104th.
Current situation of COVID-19 in Vietnam

Case chart by day in the last 6 months

24/06/2022
total number of cases: 653
community: 543
7 days on average: 357
isolation area: 119
Current situation of COVID-19 in Vietnam

- The Ministry of Health proposes V2K (vaccine - mask - disinfection). If new strains appear that affect people's health, the 5K message will still be used.

- Vaccines are still an important measure in disease prevention and control. Continue to promote vaccination, proactively develop and deploy scenarios and plans to respond to all epidemic situations.
The Vietnamese health system

- Specialized health care
- Provincial and city health care
- Grassroots health care
- Central healthcare
- Universal health care
Vietnam’s economic contraction in 2020 had short real GDP declining in second quarter in 2020.

However, recovery right after that and keep stable until first quarter in 2021.

With substantial COVID-19 response measures, the overall fiscal deficit for 2020 is minimal.

In 2021, with the spread of delta variant, the GDP reduction sharply by 6.8% (see next page).
ECONOMIC IMPACT

• Economic growth
• Manufacturing industries
• Impact of COVID-19 on businesses
• Exports, imports and balance of trade
Redirecting the epidemic prevention strategy to "Safe adaptation, flexibility, effective control of the COVID-19 epidemic"
Preparedness, response toward COVID-19 – Flexible policy response
COVID-19 vaccination campaign

Prepare:
- Social Mobilization
- Supply of vaccine and materials
- Vaccine delivery

Perform:
- Covid-19 vaccine implementation
- Covid-19 vaccination safety
- Covid-19 vaccine deployment in Vietnam

Evaluate:
- Vaccine impact
- Challenges
### Prepare

#### Social Mobilization
- **Secure vaccine supply committed by highest level at early stage:** 1) Decree no. 21/NQ-CP; 2) Advocated by national leaders; 3) Vaccine research and technology transference into domestic production…
- **High political commitment:** 1) Establishment of the National and Provincial Steering Committee; 2) Vaccine transportation and distribution by the Ministry of Army; 3) Development of the national database for COVID-19 vaccination; 4) Daily report; …

#### Supply of vaccine and materials
- COVID-19 vaccines: A total of 255,371,154 doses from different sources (Procurement from the State budget; International aids; Domestic aids;…)
- From May 2022, both COVID-19 Pfizer & Moderna vaccine are available for this age group, meeting the basic needs
- EPI distributed 228,825,994 doses of vaccines and over 301 million materials nationwide

#### Vaccine delivery
- Vaccine delivery in a Stadium, (HCMC)
- Vaccine delivery at night in a guesthouse nearby an industrial zone of Binh Duong province
- Vaccine delivery in a School, Ninh Binh
- Vaccine delivery at home
Covid-19 vaccine implementation

- 8 Mar 2021: Covid-19 vaccine introduction
- May 2021: Expand to other high prioritized groups
- Jun 2021: other groups
- Nov 2021: 1st booster dose for adults
- Dec 2021: 1st booster dose for adults
- Apr 2022: 2nd booster dose for adults
- May 2022: Booster dose for 12-17 yrs
- Jun 2022: Booster dose for 5-11 yrs

Covid-19 vaccination safety

- Vietnam has provided vaccination guidelines and trainings for 6 types of COVID-19 vaccines. In which, 1) Construct screening procedure before vaccination; 2) Provide monitoring for Adverse Events following Immunization; 3) Trainings for healthcare workers in hospitals and commune levels.

Covid-19 vaccine deployment in Vietnam

- Complete primary series for people aged 18 years and older (68,821,330 shots), reaching > 99% coverage
- Ongoing implementation for children aged 5-11: 5,403,251 doses provided in 63/63 provinces/cities
COVID-19 VACCINE DEPLOYMENT IN VIETNAM

Data From Mar 7, 2021 to Jun 13, 2022

224,137,582 shots given
COVID-19 VACCINE DEPLOYMENT IN VIETNAM
(As of June 14, 2022)

Dose provided by vaccine

<table>
<thead>
<tr>
<th>Vaccines</th>
<th>1st doses</th>
<th>2nd doses</th>
<th>3st doses (Abdala vaccine)</th>
<th>Additional dose</th>
<th>1st booster dose</th>
<th>2nd booster dose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Comminaty (Pfizer)</td>
<td>20.880.246</td>
<td>23.934.873</td>
<td>26</td>
<td>7.475.400</td>
<td>20.042.191</td>
<td>1.604.952</td>
</tr>
<tr>
<td>Spikevax (Moderna)</td>
<td>8.571.947</td>
<td>3.990.712</td>
<td>8</td>
<td>1.715.347</td>
<td>7.922.549</td>
<td>106.494</td>
</tr>
<tr>
<td>Vero cell</td>
<td>23.940.098</td>
<td>22.637.988</td>
<td>0</td>
<td>1.822.437</td>
<td>768.537</td>
<td>1.534</td>
</tr>
<tr>
<td>Abdala</td>
<td>1.667.579</td>
<td>1.506.245</td>
<td>1.508.001</td>
<td>25.821</td>
<td>331.138</td>
<td>1.576</td>
</tr>
<tr>
<td>Sputnik V+Light</td>
<td>744.868</td>
<td>732.471</td>
<td>0</td>
<td>477</td>
<td>3.035</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>84.935.817</strong></td>
<td><strong>77.680.640</strong></td>
<td><strong>1.508.271</strong></td>
<td><strong>14.968.034</strong></td>
<td><strong>43.168.812</strong></td>
<td><strong>1.744.454</strong></td>
</tr>
</tbody>
</table>
COVID-19 VACCINE DEPLOYMENT IN VIETNAM
(As of June 14, 2022)

• Primary doses

![Primary dose coverage of COVID-19 vaccine among age groups]

• 1st Booster dose

![1st Booster dose coverage of COVID-19 vaccine among age groups]
COVID-19 VACCINE DEPLOYMENT IN VIETNAM

Data From Mar 7, 2021 to Jun 17, 2022 – **ADULTS**

From Oct, 2021 to Jun 17, 2022 – **CHILDREN 12-17 YEARS**

Cumulation of Primary and Booster dose of COVID-19 vaccine in Adults

Cumulation of Primary dose of COVID-19 vaccine in Teenages
COVID-19 laboratory confirmed cases in Adults in Vietnam by month
(n=4,154,196)

COVID-19 laboratory confirmed cases in Children in Vietnam by month
(n=1,701,002)

Vaccine impact
Vaccine impact

COVID19 Case Fatality Rate in Vietnam by month, Mar 2021 - Jun 2022
Challenges

• Vaccine hesitancy
• The mobility of population
• Data management
Treatment solutions

✓ Medications to support treatment COVID-19, the Ministry of Health has mobilized maximum resources to supply drugs according to treatment needs. Provided on demand antiviral medicine like Remdesivir, Favipiravir, Molnupiravir.

✓ For medical oxygen products, the Government has directed functional branches to change the purpose of using oxygen for industry to medical use, to reduce the lack of oxygen for treatment; at the same time, implementing a number of solutions to deal with local oxygen shortages in some southern localities.
Financial sources for epidemic prevention and control in Vietnam

- State budget (both central and local)
- The health insurance fund
- Aid sources from countries, international organizations
- Other lawful funding sources
- Donation, financial and in-kind support from foreign businesses, organizations and individuals
- The COVID-19 Vaccine Fund
- The Fatherland Front at all levels
- Directly support the authorities
- Medical facilities
- Donation, financial and in-kind support from domestic businesses, organizations and individuals
Response
Topic: Third-Degree Contact Tracing in Vietnam

Contac tracing to catch the speed of virus transmission.
Confirmed case
Isolation & treatment

Get passenger’s list

All flight co-passengers of a positive case

Contact tracing using direct* and indirect** information

Yes

Successfully traced

Instruct to notify local CDC and health stations

Stay in quarantined place for 14 days:
- Testing for SARS-CoV-2 at least three times
- Symptoms monitoring at least twice daily

No

Unsuccessfully traced

All passengers and crew members on flights containing confirmed case were considered close contacts to confirmed cases

Unsuccessfully traced

Contact tracing using supplementary information***

Yes

Unsuccessfully traced

14 days after the last successful tracing attempt

No

Lost-to-follow
Lockdown

Vietnam took the first of many steps to implement closures and limit mobility for citizens and international travelers.
Lockdown

from 0:00 February 16 to March 17, 2021
• Hai Duong Province entered lockdown

from 0:00 on July 9 to October 1, 2021
• Ho Chi Minh city entered lockdown

October 11, 2021
• Issuing Resolution 128/NQ-CP providing for "Safe adaptation, flexibility, effective control of the COVID-19 epidemic"

Wave 3

Wave 4
The organization of treatment division, care management and treatment has been thoroughly organized with the motto "four on the spot" (on-the-spot command, on-site forces, facilities on-site and on-site logistics) and proactive support from experts from central hospitals.

Deploying models of care and treatment of infected people at home.

Strengthen the establishment of mobile medical stations for communes, wards and townships with the participation of medical forces, military medics and volunteers. Mobile medical stations have performed preliminary first aid, rapid testing, vaccination, support for referrals, and supply of home treatment bags.
Primary care and hospital response

Effectively organize treatment stratification (3-storey tower model) with expert support between floors; provide professional support through online and face-to-face consultations, communication between treatment floors, safe transfer, especially on the 3rd floor (severe, critical) for the 2nd and 1st floors; organize classification and referral in accordance with the severity of the disease and the patient reception capacity of the treatment facilities; treat respiratory support measures.
Human resource for health

- Treatment
- Medical staff
- Military medical forces
- Medical student
- Tracing
  - Rapid testing
  - Manage isolation cases
  - Support social security work
  - Vaccination
- Commune and ward officials
- Police
- Volunteers
- Army
Ensuring access to essential health services

Access to essential health services for non-COVID-19 patients has been ensured since the outbreak of COVID-19:

• **In safe zone, all activities still remain unchanged** and people can still access health services.

• **In the unsafe zone and the outbreak area**, there is a restriction for those who want to come to the hospital, **testing was mandatory before being admitted to the hospital**.

• **Telemedicine** has been used flexibly to **support people at home** and perform **quick references** when needed.
## Protecting vulnerable people

<table>
<thead>
<tr>
<th>The elderly</th>
<th>Women and children</th>
<th>The poor and migrant workers</th>
<th>Household business/Enterprises</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Prioritize vaccination</td>
<td>• There is no discrimination for women in terms of health service access or gender-based violence as a fallout of the pandemic</td>
<td>• Subsidized according to the regime</td>
<td>• Preferential economic policies and relief measures have been implemented.</td>
</tr>
<tr>
<td>• The government decided to do all the best for the elderly who stay home and not get vaccinated</td>
<td>• Free testing and treatment</td>
<td></td>
<td>• Tax payment in some cases had been exempted or deferred and electricity tariffs have been reduced for three months</td>
</tr>
</tbody>
</table>
Innovation through leapfrogging
a. Information and Communication Technologies (ICTs)

- One app for all
- Encrypted QR code
- All travel record
- Mandatory report for travel and check in
- Medical report
- Vaccine tracking
- Use for contact tracing, case reporting
- Laboratory testing manager
- Risk map application

Bkav  viettel  VNPT
Innovation through leapfrogging

b. Public and private partnership (PPP)

• During 2020-2022, it is a great collaboration between governmental agencies and private companies to cope with the outbreak of COVID-19, particularly in contact tracing (Viettel corp and VNPT play a great roll helping contact tracing system to work).

• Several local manufacturer started to help government agency to develop test-kit and when success they started to produce test kit, quick test to help controlling outbreak.

• Government media and private medial join the risk communication. More infographic created by private sector that help spreding COVID-19 information toward people to raise their own conciousness.
COVID-19 impact on the progress of UHC and sustainability

- **Service coverage:** Describe a potential impact of COVID-19 on UHC index (WB/WHO indicator) in terms of service coverage. Also describe the extent of disruption in provision and access to health services.

- **Financial risk protection:** Describe a potential impact of COVID-19 on financial risk protection. Describe the trend in out-of-pocket (OOP) payments share out of household’s consumption or income as well as the percentage of households incurring catastrophic health expenses, which means expenses in excess of 10% of their consumption or income.

- **Financing for vaccination (fiscal space):** Describe fiscal space for financing vaccination and its potential impact on the progress of UHC.
Shortcomings, limitation, reason and experience lesson

Experience lesson:
- The leadership and direction
- Implement early, proactively, consistently with the anti-epidemic measures
- The motto "four on the spot"
- Stick to reality
- Good communication
- Mobilize strength of all people

The work of directing and operating is still awkward, inconsistent, and passive

Current legal provisions are not close to reality, not feasible

The grassroots health and preventive medicine system still reveals its limitations

Some measures are still not close to the reality of each region, each locality

The integration into a single application is still slow
Lessons for other countries: best practices and challenges

- Community COVID-19 team
- Model of mobile medical station
- Treatment stratification according to the "tower of 3 floor" model
- Managing home treatment for infected people (F0)
- Consulting support from distant
- Others (Free ATM for rice, oxygen...)
Lessons for other countries: best practices and challenges
Thank you!