

COVID-19:

Vaccine Development and Vaccination Strategy in Vietnam



1-Vaccine development

By April 2021, Vietnamese vaccine developers have been researching, developing, and testing 4 vaccines against Covid-19.¹

1. Nano Covax (developed by Nanogen)
2. COVIVAC (developed by IVAC)
3. Vabiotech (developed by Viabotech)
4. The vaccine developed by POLYVAC²

Among those vaccines, Nano Covax's first-stage human trial began on 10-12-2020³ and COVIVAC has been set for human trials since 15-03-2021⁴

2-Vaccine importation⁵

Vietnam has imported vaccine from other international vaccine manufacturers and organizations, including:

1. AstraZeneca (jointly developed by AstraZeneca and the University of Oxford)
2. Sputnik V (developed by Gamalaya Research Institute)
3. Pfizer

4. Vaccine distributed through the Covax Facility⁶ program. Vietnamese people have been vaccinated with AstraZeneca since 08-03-2021

3 phases of clinical trials for the Nano Covax vaccine⁷

Nano Covax vaccine is researched and developed by the Nanogen Pharmaceutical Biotechnology company. After more than 4 months of research, the vaccine entered clinical trials on human over 3 phases



Phase 1 (completed)

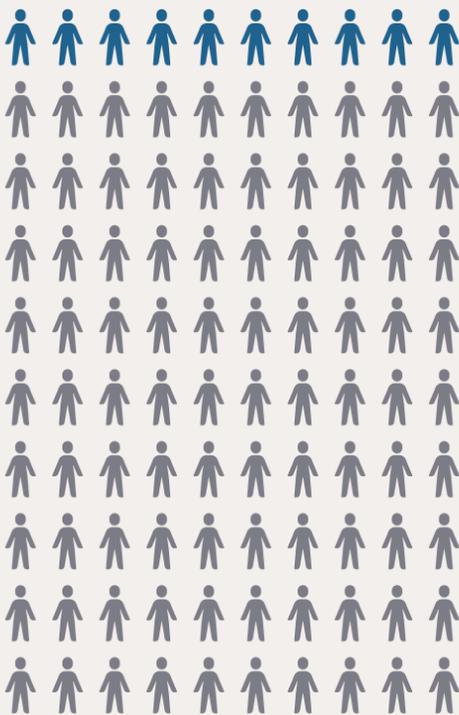
Tested from 17-12-2020 to 09-02-2021 on 60 people

Phase 2 (on going)

Tested from 26-02-2021 to the end of May 2021 on 554 people

Phase 3 (plan)

Scheduled for the end of June 2021 on 10,000 people (5,000 people to be tested with Nano Covax, 5,000 people to be tested with AstraZeneca)



Number of volunteers received injections of Nano Covax in Phase 1 of the clinical trial on small scale (on total of 614 people)

First shot: 17-12-2020
Second shot: 09-02-2021

Legend:
👤 = 6 người

Phase 1⁸

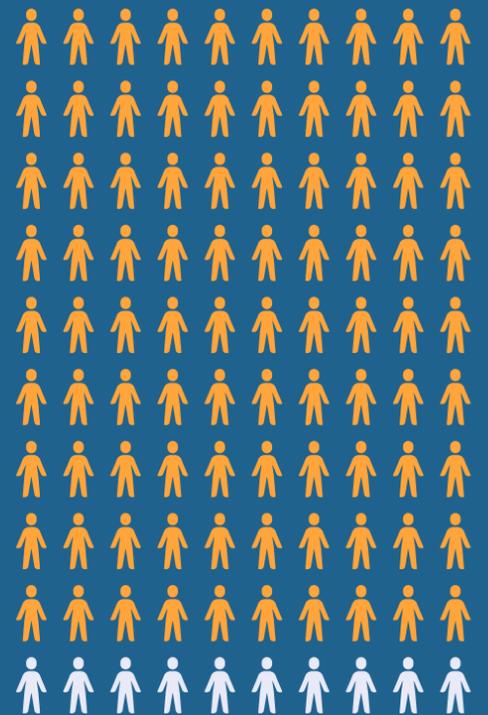
- Sample size: 60 people
- Age: 18 to 50
- Gender: Male and Female
- Health Condition: Good
- Location: Hanoi
- Testing groups: 3 groups
 - 25 mcg dose: 20 people
 - 50 mcg dose: 20 people
 - 75 mcg dose: 20 people
- Results: 100% of volunteers were safe after receiving injections of Nano Covax. The vaccine could stimulate the body to produce a high amount of antibodies, and shows effectiveness against the COVID-19 variant found in the United Kingdom.

Phase 2⁹

- Sample size: 554 people¹⁰
- Age: 18 to 76
- Gender: Male and Female
- Health Condition: volunteers including those with mild background ailments such as hypertension, dyslipidemia, diabetes, and cardiovascular issues level I...
- Location: Hanoi and Long An
- Testing group: 4 groups
 - Plabeco dose: 80 people
 - 25 mcg dose, 50 mcg dose, 75 mcg dose: 474 people
- Results: after receiving the second shot, volunteers exhibited symptoms such as pain at the injection point, a slight fever, muscle aches, joint pain, and fatigue, but did not require medical intervention. As of 08-04-2021, 554 volunteers' health conditions remained stable. Nano Covax is safe.
- The preliminary report of the clinical trial would be submitted in May 2021

First shot: 26-02-2021
Second shot: 25-03-2021

Legend: 👤 = 6 người



Number of volunteers received injections of Nano Covax in Phase 2 of the clinical trial on small scale (on total of 614 people)

Source:
1. HCM city Health Dept. The first "made in Vietnam" COVID-19 vaccine is expected to be available by the end of September 2021.
2. Ministry of Health. On December 10, 2020, the Vietnam COVID-19 vaccine trial program officially started.
3. NanoGen Pharma. Introduction of Nano Covax.
4. Dept of S&T and Training - Ministry of Health. Vaccinate volunteers participating in a phase 1 clinical trial of COVIVAC vaccine.
5. Ministry of Health. The roadmap for importing COVID-19 vaccine from abroad to Vietnam.

6. Open Development Vietnam. Mechanism of Covax Facility.
7. Ministry of Health. If all goes well, in September 2021 there will be a vaccine against COVID-19 of Vietnam..
8. Tuoi tre news. Completion of phase 1 trial of Nano Covax vaccine of Vietnam.
9. Ministry of Health. Phase 2 clinical trial of Vietnam COVID-19 vaccine.
10. Ministry of Health. Prepare an investment plan if Vietnam successfully tests COVID-19 vaccine.

Vaccine importation strategy¹¹

Vietnam has been implementing a plan for importing vaccine in 2021 from 4 sources:



purchase vaccine from AstraZeneca (UK)



negotiate for transferring Sputnik V vaccine manufacturing technology (Russia)



purchase vaccine from Pfizer (USA)



receive vaccine through COVAX Facility (UNICEF)¹²



Vaccination timeline

10-12-2020



The Centre for Research and Production of Vaccines and Biologicals (POLYVAC) signed a confidentiality agreement with the Russian Direct Investment Fund (RDIF) on manufacturing and distributing Sputnik V in Vietnam¹³

24-02-2021



117,600 doses of AstraZeneca vaccine arrived in Vietnam from the UK¹⁴

08-03-2021



Vietnam started Covid-19 vaccination for priority groups, using AstraZeneca¹⁵

16-03-2021



Vietnam received 1,000 Sputnik V vaccine doses as a donation from the Russian Government¹⁶

23-03-2021



Vietnam's Ministry of Health approved Russia's Sputnik V Covid-19 vaccine for emergency use¹⁷

01-04-2021



The first shipment of 811,200 AstraZeneca vaccine doses supported by the COVAX Facility program arrived in Vietnam¹⁸

End of May 2021



Vietnam plan to receive 3,364,800 doses of AstraZeneca vaccine via the COVAX Facility program¹⁹



80,857 people have been vaccinated (data updated at 16:00 on 19.04.2021)²⁰

11 priority groups have been receiving the first COVID-19 vaccination in Vietnam²¹

Source:

11. Ministry of Health. The roadmap for importing COVID-19 vaccine from abroad to Vietnam.

12. Open Development Vietnam. Vietnam receiving COVAX Facility.

13. VOV. POLYVAC will import and distribute Sputnik V vaccine in Vietnam.

14. Nhan dan news. The first batch of Covid-19 vaccine has arrived in Vietnam.

15. Ministry of health. 1,000 doses of Russian vaccine Sputnik V have arrived in Vietnam.

16. Tuoi tre news. Today Vietnam started to vaccinate against COVID-19.

17. HCM city Health Dept. Vietnam urgently approves Sputnik V vaccine.

18. Ministry of Health. In the next 3 weeks, Vietnam will have more than 811,000 doses of COVID-19 vaccine from COVAX Facility.

19. World Health Organization. First shipment of COVID-19 vaccine from COVAX Facility arrives in Viet Nam

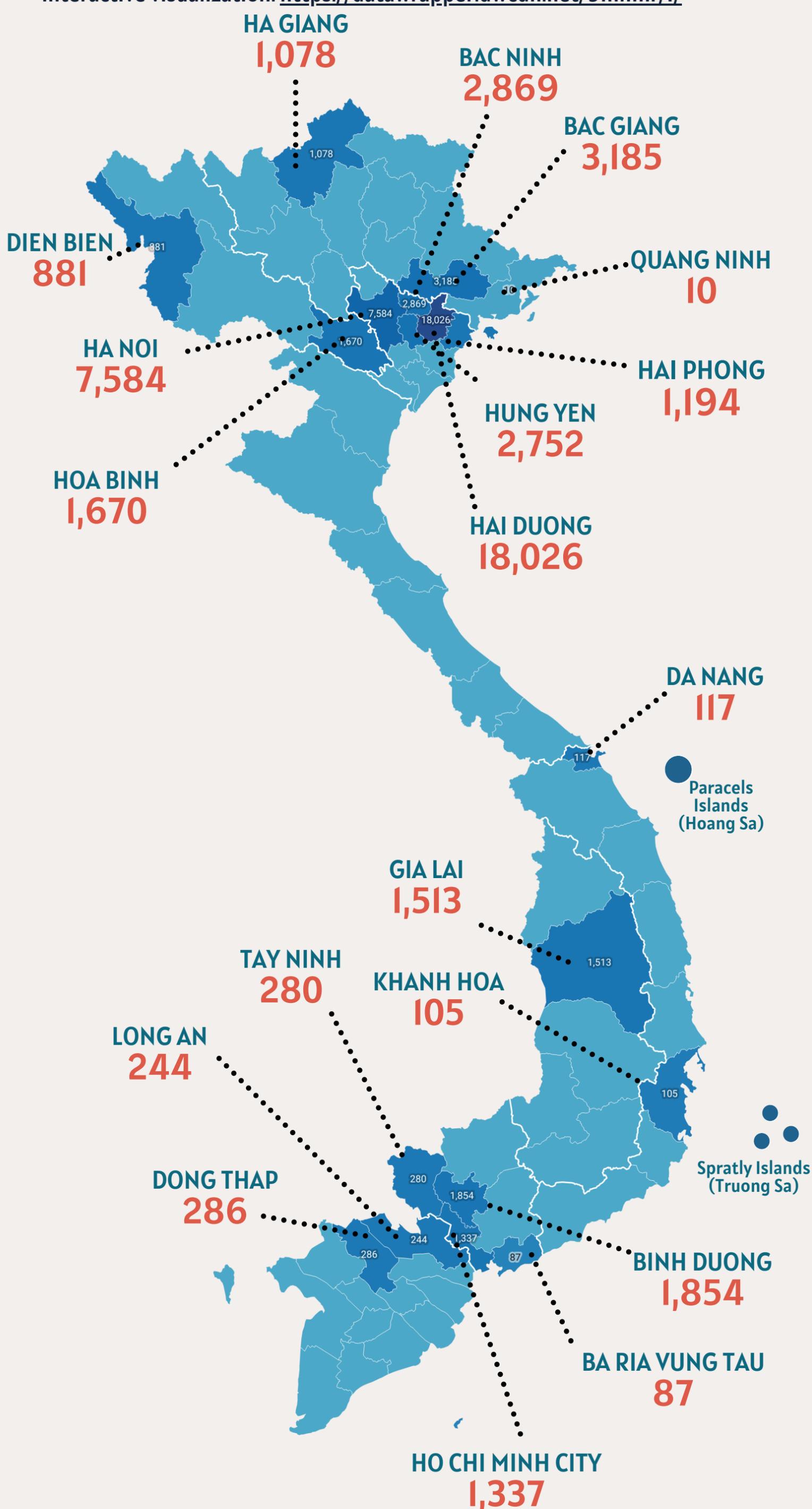
20. Nhan dan news. In 26 days without community cases, 80,857 people were vaccinated.

21. Vietnam Vaccine JSC. 11 prioritized groups for COVID-19 vaccination in Vietnam.

Vaccination map in Vietnam

Data Source: Ministry of Health (Updated at 28-03-2021)

Interactive visualization: <https://datawrapper.dwcdn.net/9mhmr/1/>



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1. Nhan dan news. <https://nhandan.com.vn>
 2. COVID-19 page - Ministry of Health. <https://ncov.moh.gov.vn>
 3. Ministry of Health. <https://moh.gov.vn>
 4. Nanogen Pharma. <https://nanogenpharma.com>
 5. Open development Vietnam. <https://vietnam.opendevlopmentmekong.net/en>
 6. HCM city Health Dept. <http://medinet.gov.vn>
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 8. VOV news. <https://vov.vn>
 9. Tuoi tre news. <https://tuoitre.vn>
 10. Vietnam Vaccine JSC. <https://vnvc.vn>
- II. World Health Organization. <https://www.who.int/vietnam>

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