



# Covid19 – ZostanZdravy

This application was created by Slovak volunteers and experts in a short time to stop the spread of the pandemics. It was handed over to all countries free of charge, including Slovakia as a tool for health organizations to help flatten the curve and overcome COVID-19 faster. In the future, it can be deployed instantly

at the beginning of any other pandemics, to get it under control more quickly.

The application will be updated each day, and its developers will cover all expenses.

The code and know-how should serve all people throughout the world, and it cannot become the property of any organization.



Zostaň zdravý



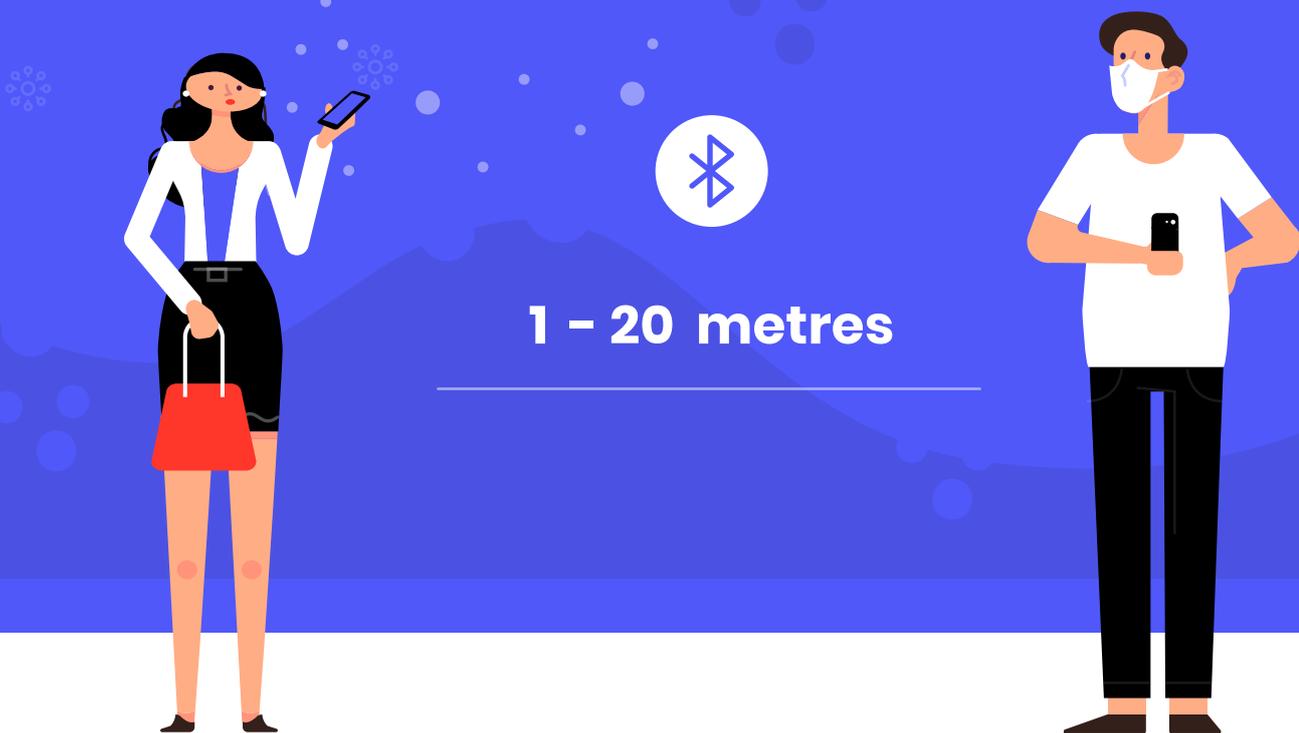
One of the most malicious attributes of **COVID-19** is its incubation period. The infected person spreads the disease for **14-days** showing any symptoms of the disease.

This ability makes the virus faster than ordinary flu, and people who need to be hospitalized will overload the health system. The goal of this application is to slow down the infection by allowing faster testing of potentially sick people and prevent them from spreading the disease without them knowing. In the end, it will help to protect the infected people, their families and the whole healthcare system, which will desperately need the capacity before the exponential growth of the critical cases.

# How does the application work?

After the installation of the application, the user is asked to allow access to Bluetooth, GPS and notifications. Bluetooth is the technology which enables the application to detect close contact with an infected person from 1-20 metres (3-70 feet), more generally within 2-5 metres (6-16 feet).

It can be used to calculate the exact distance between near devices. In comparison with GPS, this technology works faultlessly in apartments, buildings, department stores, aeroplanes, subways, buses or trams, even to the level of the specific room.



If the smartphone will recognize any other close **Bluetooth device** and the contact will exceed particular time duration, the application will record **dissipated GPS position and anonymous log of both to the server.**

The dissipated GPS position is essential for healthcare workers to analyze the spread of the disease. The Bluetooth information from other device allows them to backtrack other devices and send a notification to warn the users about contact with the infected person.

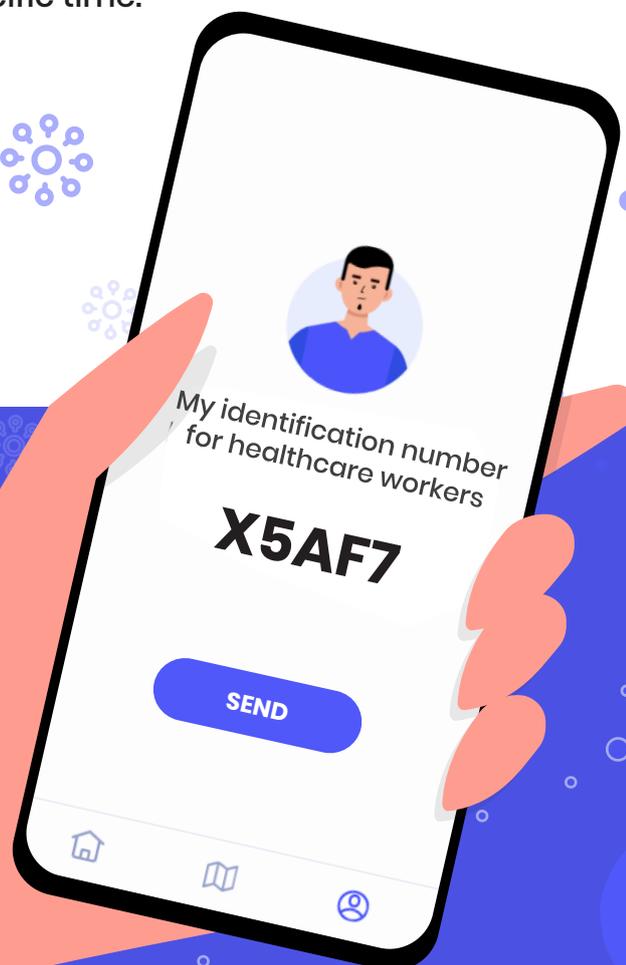


As soon as the person finds out that they were infected by **COVID-19** and has the app installed, the healthcare worker will ask for their **unique identification number**.

The responsible person then adds the number to the system and all devices which were in contact with the carrier will receive a push notification or SMS.

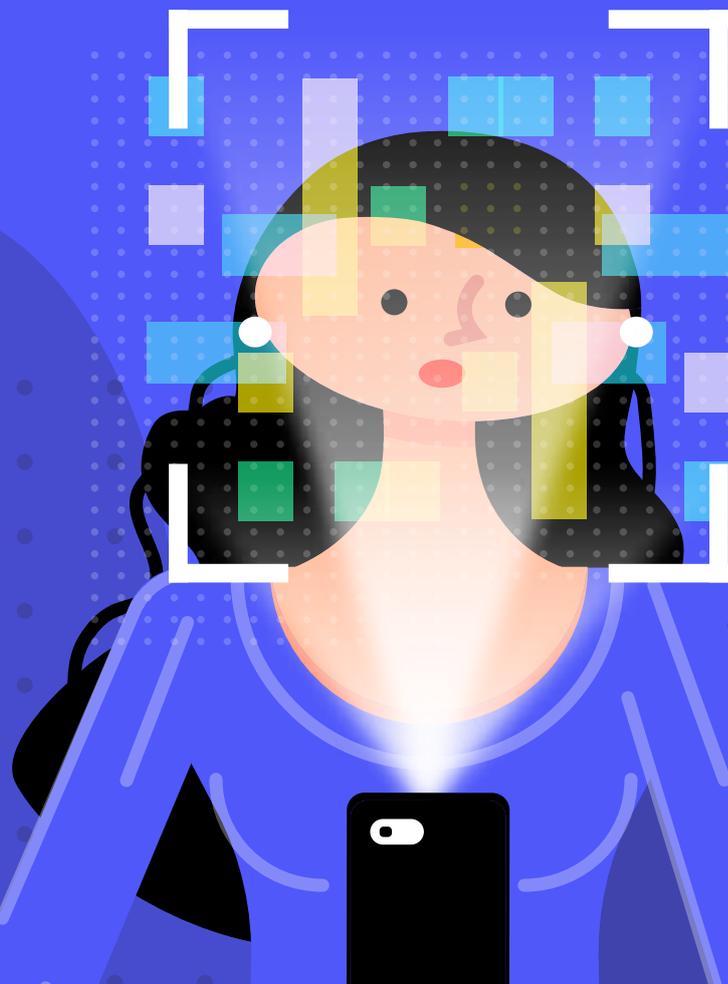
The message warns the person about exposure to the disease. It allows healthcare workers to backtrack the potential person to person transfers of the novel coronavirus up to 14 days.

Counting encounters, which the person does not remember. In buildings, at the checkout in the grocery stores or public transport. The healthcare workers can then perform targeted testing only of people who were in close contact for a specific time.



# More convenient identification with Face Recognition

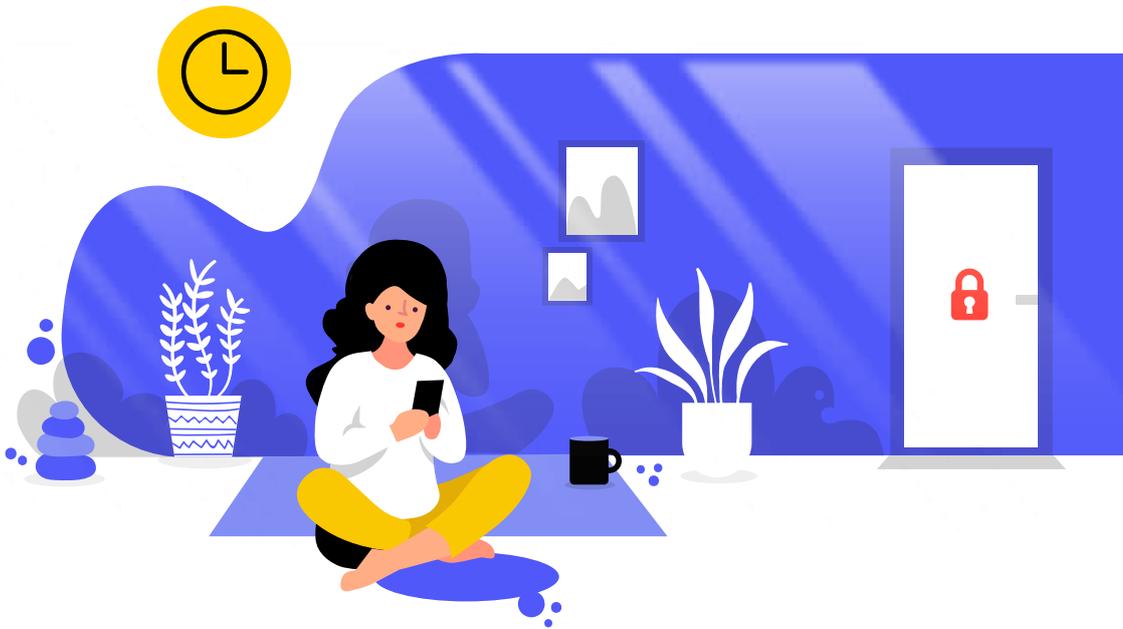
The app also contains Innovatrix Face Recognition feature to ensure that people who were positively tested or are suspected to have Covid-19 will adhere to the quarantine. The users will register the address of their whereabouts in isolation, phone number and will perform the face scan. The system through health authority will then randomly send a push notification or SMS asking them to check, whether they stay in the place. The person will then open the app, will identify by performing face recognition and his liviness, which is then sent to the secure server with current GPS coordinates. This will be checked against the place of quarantine. If the person do not reply, or is not at the right coordinates, system escalates the topic to administrator of the system. To ensure privacy, the picture will not be stored on servers. It will be delivered as a unique hash of points which will be then evaluated by the algorithm.



Healthcare workers are today **asking positively tested people about who they met.** Based on this information they contact people who were potentially exposed to the disease.

But they are unable to identify contacts in grocery stores, public transport or the elevator. This application can uncover such encounters, so healthcare workers can test them without additional unnecessary responsibilities and avoid infecting other family members, colleagues, or other random people.

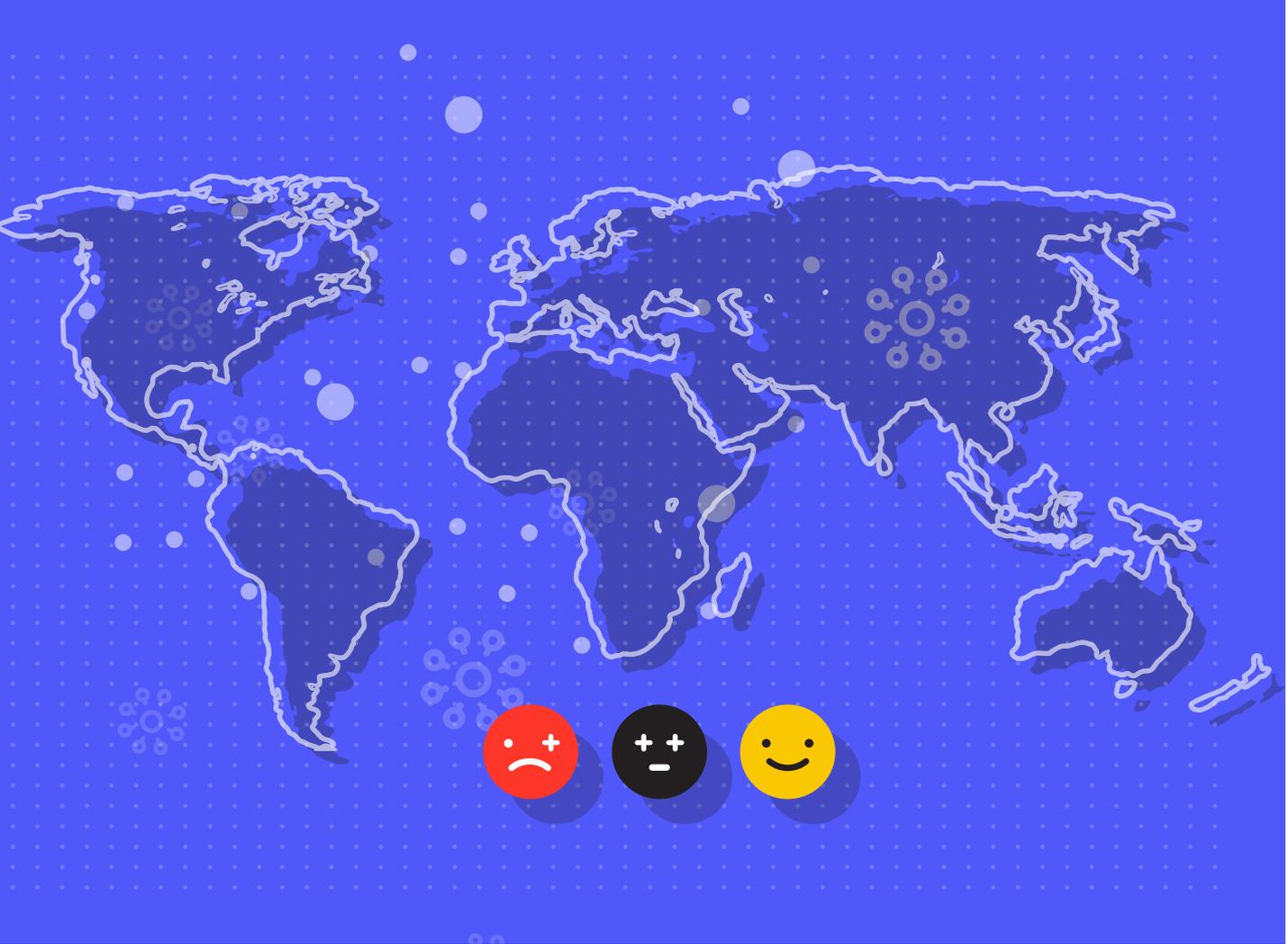




## The most important part of prevention against **COVID-19** is **the isolation of sick people** from the general population.

Quarantine is used for this purpose. In case, the person came from abroad or was potentially exposed to the infection. They must stay quarantined all the time.

Regarding this sickness – for 14 days. Mobile operators have information about the movement of people who came from abroad. These people should receive SMS so that they will stay quarantined. After it, the person will set the quarantine in the application and will mark the place they will remain for the next 14 days. At the same time, they will add the date when the quarantine was ordered. The application will later warn them for each violation of the quarantine. As soon as the person leaves the quarantine for longer than the specified time, the app will notify them, to return to the quarantine. This functionality prevents violations of the ordered quarantine.



## The application shows **the map** **and the latest information** about infections in individual districts.

Its purpose is not to identify positively tested people, and it doesn't have access to this type of information. The map shows just the statistical number of COVID-19 cases in a broader area.

The app also contains statistical information about the number of positively tested, cured people, and the number of deaths caused by a novel coronavirus. User can also find information about how to protect themselves, recognize symptoms and shows essential emergency numbers.

# It was never so important not to get sick to **protect others.**

When we will stay healthy and will not spread the virus, our closed ones will have an increased chance to survive.

Healthcare will be capable of providing much-needed help.

If we get sick, by us spreading the virus, we will burden the healthcare and the personnel will be more prone to get infected. If they get sick, they will also not be able to help in other non-corona related cases, and we all lose access to proper healthcare, even with common injuries, surgeries, or other serious condition.

## Thank you to all, whose hard work made this project possible:

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