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Synchronizing Covid-19 Rapid Test to National Identity Number

Abstract

The Covid-19 pandemic that is currently happening has given option the country to do screening of the population with rapid test. Rapid test is used for those who has contact with affected patient, can be physically contacted or live in an environment where some people have been tested positive with the virus. While the test has run in various region of the country, the track record of the result is unreliable and the option to synchronize the test result and national identity number is possible to do so. In order to synchronizing the two, the data of national identity number could be prepared by the Ministry of Internal Affairs and it require a compatible tandem by the rapid test equipment by adding a somewhat of serial number, and IMEI like to the rapid test equipment that has been registered before. By synchronizing the registered data, central government can map the virus growth and allocating which district should be restricted more than the other to prevent the increasing of death rate among the infected.

Keywords: *Covid-19, National identity number, Synchronization*

Introduction

In recent day, the pandemic has spread wildly affecting more people. In Indonesia, in the past three days the number has arisen significantly and it published on national media. Although this number is concerning, plenty of international organization doubting the accuracy (Peter, 2020). As the number fourth most populated nation, the number of the positive case in Indonesia is extremely small, comparing to China, United States of America, and even Japan. The data is somewhat under the radar or being sugarcoated due to its ineffective administration (Kumparan, 2020).
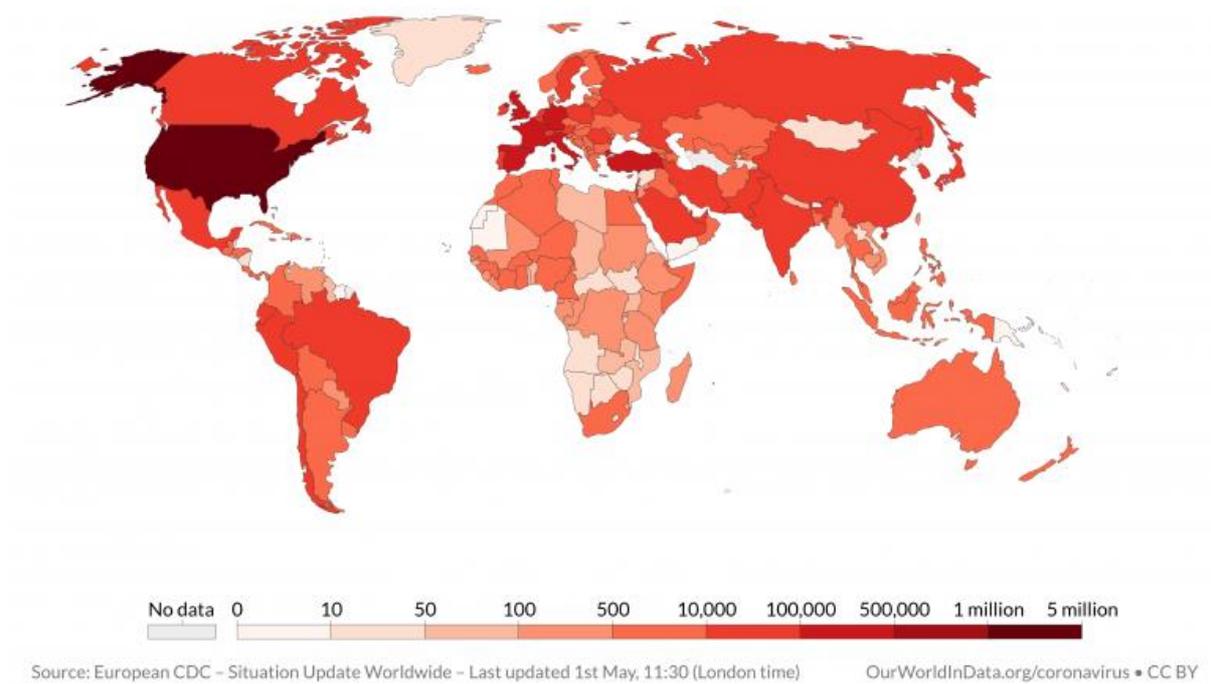

Figure 1: Total Confirmed Covid-19 Cases per April 2020

Covid-19 Rapid Test has been done in most province in Indonesia to somewhat discover on how wide the virus has spread, therefore the result of the test is not easily traceable. The concept of synchronizing the rapid test result with National Identity Number (NIK) might

unveil the harsh truth to the government on the infected number of people. The implementation of the concept of synchronizing the test result can take reference from the IMEI technology that has exist for years in the universe of mobile devices. The terminology of IMEI stands for International Mobile Equipment Identity that in most cases is unique code that can be used to identify a device (Rao & Vedavathi, 2011). Thus, this unique code proposed to be synchronize with national identity of Indonesian citizen to monitor better on the pandemic growth in Indonesia.

Covid-19 Rapid Test

As the infected patient is increase rapidly, the concept on conducting the test to a wider range is becoming mandatory (Kumparan, 2020). The purpose is to do screening for those who live in infected area or as what have been labeled as red zone. Once the public has been screened, next step of what should government and health worker do can be mapped and it can be reference to plan on further action. While testing in laboratory will show a more precise detail, it will up to consume more time and less people are able to get tested. With this condition, rapid test become a wiser chance and wiser choice to be taken.
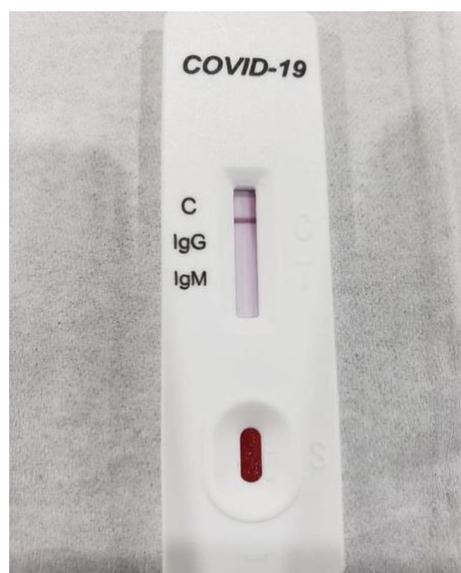

Figure 2: Sample of Rapid Test for Covid-19 Showing Unreactive Response

Rapid test for Covid 19 has been conducted in major cities in Indonesia, but what is rapid test itself? Rapid test is a method that used for screening those who has contact with affected patient, can be physically contacted or live in an environment where some people have been tested positive with the virus (Nareza, 2020). The test will detect whether someone is in possession of Corona virus antibody namely IgM and IgG. Those who took this test and the result is reactive will be interpreted as they already have antibody for this virus, and will be referred to take a swab test or Polymerase Chain Reaction (PCR) to find out whether there are still active virus inside their body.

The procedure to do the rapid test is to take a small amount of blood sample and put it in the test equipment (Nareza, 2020). This procedure is quite similar to the pregnancy test where urine sample is used to indicate whether the tester is in possession of high rate of human chorionic gonadotropin or hCG which indicate that pregnancy is occur. While the pregnancy test will show result in a minute or two, rapid test for corona virus will show the result in ten to fifteen minutes. The result will show red line, depending on the result. If the test came back positive, then a further test should be conducted to indicate and analyze better on the possibility that this person is infected by the virus. If the result shows negative, then the test should be redo in the next seven to ten days in order to recheck the possibility of antibody is being built.

Even though the rapid test classified as base screening tool, not everyone are able to get tested. This occur due to stock limit that currently possessed by health institution including government constitution. This screening test is currently prioritized for those who are in high risk to be infected by the virus. The concept of priority can be categorized as several item such as those who suffer the symptom like in fever higher than thirty eight degree Celsius or suffer

in hard breathing. Apart from the symptoms shows, a person can be classified as priority when they travelled to infected area both locally or internationally (Nareza, 2020).

National Identity Number

National identity number or in Indonesia is Nomor Induk Kependudukan (NIK) is given to Indonesian citizen and is stated in Registered Family Card or Kartu Keluarga (KK) and will be stated as well in Identity Card or Kartu Tanda Penduduk (KTP) (Mustinda, 2019). This number is somewhat similar to social security number that applied in the United States. National Identity Number requires to register in any legal document, such as passport, bank account, tax ID, and even marriage certificate. In 2009, Indonesia government has release the electronic version of this identity number where it ease the government to maintain the administrative more efficiently and decrease the possibility of a citizen to be registered in more than one ID number. This matter is strictly applied by government in order to prevent any attempt on avoiding tax by having multiple 'identity'. Apart from avoiding the tax obligation, double identity is often used for criminal to run away or hiding in new territory, including escape to other country, proposing passport with the 'new' identity (Wardoyo, 2015).

The regulation regarding identity card and civilization is written in Indonesian regulation law Number 24 in 2013 where one citizen is only allowed to have one identity card with one identity number and it applied for lifetime. It means that to have more than one identity number is illegal and will be charged based on the regulated law implemented in Indonesia.

There are several function of Identity number that possessed by each individual of Indonesian citizen (Wardoyo, 2015). The 16 digits number will be stated in every civil documents that will be used to release identity card, family registration, tax identity card,

passport, driving license, and even marriage licence. The identity number consist of 16 digits number that has its own meaning that can be interpreted even without software. The first 2 digit consist of province code. Indonesia has more than thirty province, means that there will also be more than thirty province code that will be registered in the national identity number. The next two digits are city or district code inside the province itself. The following 2 digits are a more specific code of sub-district where the ID holder live. Thus, with the first 6 digits from the identity number we can locate where the ID holder come from if they travel. The next six digit are code for the holder birthday in order of ddmmyy for example 14 November 1994 become 141194 for male holder and for female holder the date will be added by 40 for example 28 June 1994 become 680694. From this format of numbering, not only birth date that can inform the age of the holder, but also the sex of the holder itself. The rest four digit will be the serial number of those who born in the same date in one sub-district (Mustinda, 2019).

The breakdown of the identity number will provide a very much detail information regarding the holder itself, most importantly is where the holder residence, age, and also sex. This could also be checked out with the website provided by the regional government. In the website, the holder will be asked to put the identity number that stated in electric identity card or what well known for e-KTP and click on the 'check for identity number'.

Apart from checking with the identity number, e-KTP can also be check with special card reader that customized for e-KTP only (Wardoyo, 2015). For this service, the identity card holder have to come to the local government that specialized on civil matter in order for their card to be scanned by the reader. This facility can be implemented due to chip that implanted in the card, like Visa or Mastercard have to store certain amount of data consist of the necessity information. This method also used by police department to check on the unrecognizable

casualties. Once the police found the identity card, even when its unreadable by bare eyes, it can be scanned in the reader and show who is this card belong to.

Synchronizing the Two

The concept of synchronizing the rapid test and identity card is not merely a wild idea. The synchronizing has been applied by Directorate General of Taxation or Direktorat Jenderal Pajak as part of Ministry of Finance and Directorate General of Population as part of Ministry of Internal Affairs. The commandment signed by two directorate and two ministry is that to synchronize the national identity number and tax ID number. The two id will be integrated to one another (Laucereno, 2018).

The Ministry of Finance's Directorate General of Taxes can continue to receive access rights and population data from the Directorate General of Population and Civil Registry from the Ministry of Internal Affairs which is used to improve the quality of taxation services and supervision (Alika, 2018). Population data included in this Cooperation Agreement includes Family Card Number, Population Identification Number, full name, date of birth, and residential address registered in the civil registry data. The data received by the Tax Directorate General of the Ministry of Finance will be used for synchronization, verification, and validation in the context of registration and amendments to Taxpayer data and completing the Master File database of taxpayers. The purpose of the enactment is to support tax extencification and intensification activities.

In addition to synchronizing national identity numbers with tax identification numbers, synchronization was also planned by Sebelas Maret University or UNS to combine identity cards with student identification cards. Synchronization is intended to provide access to civil records about student data so as to facilitate student access if you want to administer state

documents. This university is a pioneer in the originating and execution of this concept which can then be followed by other tertiary institutions. In the future, the required identity cards will only be in the form of one card, which contains various data ranging from data needed by the state to educational institutions, taxation, and so on. Efforts to merge or synchronize national identity data with student data will be a filter to prevent accidental or unintentional double data. Transparency in education activities is also more secure and more easily monitored by state institutions so that preventive activities for extreme activities such as fraud planning to terrorism can be tracked more easily through available databases (Perdana, 2019).

Figure 3:Indonesian Police Officer Showing Evidence of Identity Card Freud

Do not stop at the merging of two identity cards, the use of electronic national identity card or well known as E-KTP has also been developed by one of the President University students to integrate with household appliances, in this case it is as a door lock. The identity card contains unique data that can refer to the information of the card owner. In attempting to

synchronize the identity card, the device must be registered with a Radio Frequency Identification or well known as RFID reader. Therefore, on a small scale, identity cards can be used more than just cards that write down the identity of the owner, but synchronization that is implemented can make a significant difference. In the experiment conducted by Adrian, the identity card will be able to be used to open the door that was previously installed by the RFID reader as is usually done at the hotel door with an access card from the hotel. Even a small screen can be added to view the data read by the RFID reader on the identity card. Based on these experiments, the use of identity cards does not close to one or two possibilities in terms of synchronization (Muhajir & Ali, 2016).

In this pandemic era, the rapid test registration can be integrated with national identity number once Ministry of Health and Ministry of Internal Affair has agreed upon to.

In order to synchronizing the two, both data should be prepared carefully. The data of national identity number is well prepared by the Ministry of Internal Affairs and it require a compatible tandem by the rapid test equipment. The concept of this tandem is by adding a somewhat of serial number, and IMEI like to the rapid test equipment that has been registered before. This IMEI like number will be the identification of the rapid test equipment before they finally 'matched' with identity number once its been allocated and used to test the person. By synchronizing the registered data, central government can map the virus growth and allocating which district should be restricted more than the other to prevent the increasing of death rate among the infected.

The how to synchronization can be opt from how Tax Directorate General of the Ministry of Finance use the data to create some sort of Master File database of those who are in high risk and has run the rapid test (Alika, 2018). This also could prevent the rapid test to be held in less urgent area to maximize the preventive action that can be conducted. By referring

to the master data, record of the rapid test allocation can be tracked down to the sub-district of each region. Not stopping from that, the needs of doing rapid test more than one for those who live in high risk territory and the test result is not showing any reactivity can be managed properly. The distribution can also be tracked down with the data based by checking whether the targeted person has taking the test or not (Laucereno, 2018).

Demand of the rapid test also able to be listed and estimated to fulfil the need in a more precise number (Alika, 2018). Synchronizing the two will bring more positive impact in order to restrict the demand, allocation, and also execution. Keeping on the track record of the result also important to know the curve of the pandemic activity in Indonesia in real time. Serving more precise data might be the last take out from the concept of synchronizing both identity number and the rapid test movement.

Conclusion

In order to screen the country population that might be infected with the pandemic Covid-19, Rapid Test has been done in most province in Indonesia to somewhat discover on how wide the virus has spread. The data is believed to be sugar coated since the number is way smaller compare to China, United States of America, and even Japan. The hard to trace data can be countered by synchronizing the rapid test equipment with national identity number. The data of national identity number that is well prepared by the Ministry of Internal Affairs will be one of the data needed to create a synchronization and it require a compatible tandem by the rapid test equipment. The concept of this tandem is by adding a somewhat of serial number, and IMEI like to the rapid test equipment that has been registered before. This IMEI like number will be the identification of the rapid test equipment before they finally 'matched' with identity number once its been allocated and used to test the person. By synchronizing the registered data, central government can map the virus growth and allocating which district should be restricted more than the other to prevent the increasing of death rate among the infected.

Master data will be created to monitor on whoever are in high risk and has run the rapid test. This also could prevent the rapid test to be held in less urgent area to maximize the preventive action that can be conducted. Apart from that, the needs of doing rapid test more than one for those who live in high risk territory and the test result is not showing any reactivity can be managed properly.

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