

DISTRIBUTION OF COVID-19 VACCINE BY DRONES

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ABSTRACT:

In such a situation where everyone is worried about the end of this epidemic of covid-19, we should also think about the distribution of vaccine once it is prepared. Coronavirus disease 2019 is infectious disease infecting the respiratory track. It is still spreading on a larger extend but good news for Indians is that the recovery rate is growing but death rate is still to be controlled. As most of us has accepted the current situation and working accordingly but still most of the people are still not serious about this pandemic.

All scientists from various part of the world is continuously trying to find vaccine, research says that by December end of 2020 or beginning of 2021 we could probably get vaccine. But the problem after that will be its distribution as after being so close to our destination we need to wait for many days. So for such solution medicine can be distributed via drones. Drones can be used to send medicine in such places where humans can't be reached efficiently or take longer time.

Drones can accumulate large amount of medicine and will be easy to distribute. But major issue will be related to finance for building it. As GDP is continuously going down we need to have a wide range of clearness if could be added. Vaccine intake by people will be done in normal way where doctors or medical persons will provide it. Distribution of vaccine via drones will help in reaching to that places where the transportation takes longer time or person can't reach easily. Vaccine can be safely transported to the destination by tracking it properly.

KEYWORDS: Covid-19 vaccine, drone, tracker.

INTRODUCTION:

Coronavirus disease 2019 is an infectious disease infecting our respiratory track with symptoms like fever, dry cough, tiredness, sore throat and many more. It affects humans as well as animals, where the pandemic situation is increasing widely infecting everyone with increase in number of infected persons. Total 4 stages of SARS-CoV-2 has been found where till now India is in 3rd stage. In first stage where the first appearance of the disease was found restricted to people with travel histories to the infected areas. In second stage local transmission began where the one who have directly come in contact with infected person can further pass it to close ones. Stage 3 is the community transmission phase, where we all are worried about this phase to come as it becomes difficult to trace the source of infection. Last stage the Stage 4, where an epidemic outbreak will cause rapid increase in cases and death multiplies rapidly^[1]. Stage 4 is still only found in China where it have affected and destroyed many lives.

Creation of vaccine, its production and its distribution is still a question. Even though we feel like that it may take few months to come in market, then the next question will rise about its door step. How to distribute? Where to distribute first? Concern for where to distribute may not be the problem as it will be done where the maximum cases are seen or by some another parameter. Nita Ambani declared a statement for covid-19 vaccine, she stated that, "I can assure you that as soon as a corona vaccine becomes available, we will volunteer by using the same digital distribution and supply chain to ensure that the vaccine reaches every nook and corner of our country."^[2] People are waiting for vaccine, no doubt but they are also conscious about its distribution. Problem of its distribution can be minimized by making use of drones. Unmanned aerial vehicles had brought a great impact to defence in carrying armed vehicles. Maintenance and building of drones is comparatively easy, because of this feature drones are also used in many places for monitoring large number of people. Vaccine distribution as our prior concern can be done via drone. Drone can be send over a longer distance by keeping in mind its protocol as well as data privacy^[3] that its location should not be tracked. Vaccine distribution can be done in faster rate if drones can be implemented for this works. There are some places where humans can't reach easily or safely for such purpose drone will mark its importance.

NEED FOR DRONE TO DISTRIBUTE COVID-19 VACCINE:

Seeing the current situation we all are waiting for vaccination to come, so that we can at least start our life probably as it was previous. Our concern should also be for its distribution so that we are not facing any issue in its distribution. For faster distribution of medicines we can put medicine in drones with specified weight. Within short of time we can send it all over the India. It will increase some cost as we need to make drones and for keeping a track of it we need humans, second phase of this will be that this will lead to increase in employment.

OBJECTIVE:

- To implement the faster distribution of medicine in such a pandemic situation of covid-19

RESEARCH METHODOLOGY:

In such situation of pandemic visiting door to door or discussing with fellow members physically was impossible. The primary data was collected via virtual discussion. Google forms which made a boon for us in such pandemic situation mark the way to research our goal. As we know that with the use of google forms data can be collected, analysed and stored.

FINDINGS:

Vaccine distribution of covid-19 should be at least completed within 24 hours once made, as death rate in India is increasing. Daily a new record is formed by the number of peoples getting infected, where life of senior citizens are threaten.

Daily stuffs such as milk, newspaper, etc. which are regularly made and distributed on the same day was my major area to go through. Following data were collected by going to shop or vendors within our area. Data concerned with rest part of India was collected via online.

- **Milk distribution:**

Total production of milk in the year 2018-2019 is approx. 187.7 million tonnes. Uttar Pradesh being the highest production of milk consisting of 18% has many centres. In Maharashtra, Ahmednagar it produces 14 lakh megatonnes leading largest production. Milk brands such as amul, mahanand, gokul, govind etc. where each brands have

more than one milk production centres in Maharashtra. Milk is distributed by the distributor around 11'o clock from main centres, next day by 4'o clock in the morning vendor collects the milk. Vendors have to be ready at specified place at that time only, then by 7'o clock they finish handling of milk pouches to shopkeeper. Maximum time with vendor is by 9'o clock.

Total time taken is approximate of 10 hours.

- **Newspaper distribution:**

Newspaper are printed and distributed usually daily that contains news articles of opinion, features and advertising. Paper printing for the day starts around 1 a.m. to 2 a.m. and distribution begins by 3 a.m. where its distribution to respective vendors are completed around 5 a.m. where now newspaper becomes available for people.

Total time taken for process to complete is maximum 4 to 5 hours.

So by going through it an idea that rises is within 24 hours vaccine would be made available for 135.26 crores of Indian people.

CONCLUSION:

Till date India ranking third in the case of covid-19 affected country with rapidly increase in number of cases, so the greatest threaten for life is seen. We must majorly focus on vaccine distribution ones it is prepared by any of the country. Life the major concern of everyone is in top and will always be, so must focus on faster mode of vaccine distribution once it is made. So for such faster distribution of vaccine we can rely on drones.

REFERENCES:

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Bio:

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