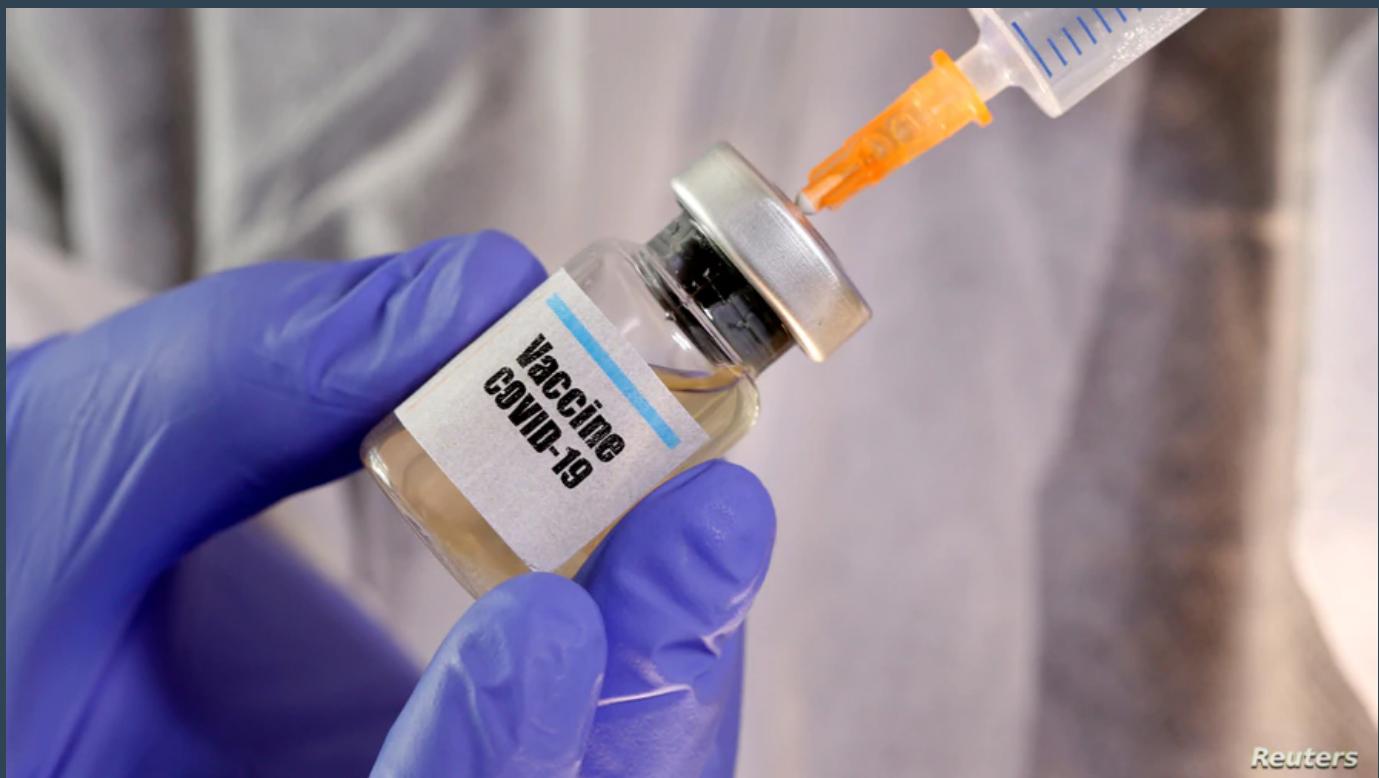


THE YCRO DISPATCH



Reuters

Development of a Vaccine

By Angie Huang

As the pandemic continues to spread at an alarming rate and quarantine has become the norm, we can't help but wonder when everything can go back to pre-March when wearing masks and social distancing was virtually unheard of. Now, vaccines seem to be our only hope in getting everything back to normal.

Historically, vaccines have taken years to produce. Before they can be widely distributed and used by the general population, they must undergo rigorous stages of testing to ensure effectiveness against the virus and no harmful side effects. With this recent pandemic, however, we have seen vaccines entering the final stages of clinical trials at groundbreaking speeds.

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One reason for the rush in developing this vaccine is the familiar family of coronaviruses. Since the original SARS virus in 2003 and MERS in 2012, many teams have been researching vaccines to fight the coronavirus. Through their research, they have identified a spike protein in SARS-1, which also happens to be present in SARS-2, indicating excellent potential as a starting point for a vaccine.

Additionally, COVID-19 is an acute infection that most people can fight on their own, rather than a chronic infection like HIV where there is no natural immune response. Therefore, the vaccine can be made to start an immune system response that will fight off the virus.

Money has traditionally been a massive obstacle in developing vaccines because companies want to see those vaccines pass through stages of testing before investing more money in the next phase. In the midst of a pandemic, those rules go out the window. There is no time to wait around for funding, so companies have started investing in manufacturing vaccines, even if those vaccines haven't passed all the trial stages. The government has also invested a large sum of money because it recognizes the tremendous need to resolve this issue, even if money is lost in the process.

In contrast to some claims about the vaccine, many experts do not think an effective COVID-19 vaccine will be available at the end of this year. Some sources say it could be available as early as January 2021, but until then, to slow down the spread of the virus, be sure to wear your mask and follow social distancing guidelines.



Here's a picture of a YCRO door grabber placed next to a pencil for size reference.

Progress Within YCRO

By Khushmeet Chandi, Kashika Dhanjal, and Anika Thatvarthy

As needs have shifted across the DMV area, many of our sub-teams have had their goals and production adapt along with them. In this article we will be highlighting the journey of two teams, the 3D printing and Innovative Design team, that have evolved along with the needs of the healthcare workers they serve.



Project YCRO has reached out to many hospitals and care centers, delivering over 6500 face shields, masks, and ear savers. The 3D Printing and Innovative Design subteams have worked hard to produce these materials. The 3D Printing team produced 2500 face shields to donate to Children's National in Washington, DC. Furthermore, 2 months ago, the 2D Printing subteam, now known as the Innovative Design subteam, created and delivered origami ear savers. Over 900 of these ear savers and counting were delivered to local hospitals, accompanied by encouraging notes for receiving healthcare workers.

Recently, the 3D Printing subteam of YCRO has been focusing on door grabber production. Door grabbers help slow the spread of germs by minimizing the amount of contact individuals have to make with surfaces such as door handles and elevator buttons. Project YCRO is also proud to announce that they have once again partnered with Pohick library to help boost production of 3D printed ear savers and door grabbers. In addition, the team has been working alongside the tutorials subteam in order to create a comprehensive video that guides others through the process of 3D printing PPE using their own equipment. The tutorials will help the viewer with production of face shields and door grabbers in particular, discussing the pros and cons of different models, and walking the viewer through production optimization methods.

The Innovative Design subteam has been working to release a guide that informs the general public on how to create their own ear savers, face mask coverings, and face shields without the need of any heavy or specialized equipment. The guide, alongside an infographic, will also explain the importance of these materials. In the future, the Innovative Design team plans to hold a live seminar in order to reach out to the community in a more interactive manner. Project YCRO is extremely proud of these subteams taking initiative and transforming their mission to meet the needs of the community!



Virtual Learning

By Emma Cheng

This fall, instead of bustling into school amid locker slams and “welcome back’s”, the over 188,000 students of FCPS will be logging onto computers for virtual learning. The decision was made last Tuesday, as per a vote by the Fairfax County School Board, to approve Superintendent Scott Braband’s call for school to start completely online. However, with COVID-19 numbers on the rise in Virginia -- as well as nationally --, the shift to online learning might have been inevitable. On the first day of July, there were 416 cases in Virginia. That number rose steadily and peaked at 1,505 cases on July 27. In the last seven days alone in Fairfax County, there has been an average of 1,005 cases, as indicated by The New York Times.

Braband cited the unwavering COVID-19 numbers, as well as potentially lowered teacher availability, as reasons for virtual school. In addition, FCPS currently lacks the capacity to test students.

The county will reassess sending students to school in person should conditions improve. For now, though, parents should be prepared to contact respective schools should they need technology assistance -- the county hopes to launch a branch specifically aimed at helping parents -- and support their kids through online school.

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