



## Defining the future of health care and developing tomorrow's Innovators.



**2021 Medical Marvels Research Competition**  
A research competition for 9<sup>th</sup> and 10<sup>th</sup> grade students

Sponsored by the Feinstein Institutes for Medical Research and the Center for Workforce Readiness

At Northwell Health, we're Made for discovering, developing and delivering life-changing medical breakthroughs. The Northwell Health Medical Marvels Competition is one way we're inspiring and empowering the next generation of healthcare visionaries. Established in 2013 by the Feinstein Institutes for Medical Research and the Center for Workforce Readiness, Medical Marvels exposes 9th and 10th grade high school students to an incredible world of science, technology, engineering and math (STEM) careers. As we raise these students' awareness of the multidisciplinary impact of STEM careers, we encourage their creativity while helping school districts and industry leaders develop assets and improve the economic future of students.

## A look back

In 2020, more than 200 students across 38 school districts participated in the seventh annual Medical Marvels Competition focused on vaccinations.



# Northwell Health is pleased to announce the 2021 Medical Marvels challenge focus: Gun Violence

## Background

The health and safety of our communities and ourselves should be everyone's top priority. Gun violence has been and continues to be a public health crisis across the nation, and is often only magnified after a mass shooting. In the United States, more than 39,000 people are killed from gun violence and an additional 85,000 people suffer non-fatal injuries, according to the American Public Health Association.

Although school shootings receive the most media coverage, the majority of gun-related deaths are from suicides. In 2017, Pew Research reported that half of all suicides that year involved a gun. The Mental Health America organization reported that more than 10 million adults have an unmet need for mental health treatment, and over 70% of youths with major depression are still in need of treatment. In addition, less than 1% of U.S. students are identified with emotional disturbance despite the millions of youths with severe impairment. Individuals are not able to receive treatment because they have no insurance or limited coverage of services, there is a shortfall in psychiatrists, there is a lack of available treatment types, or they do not have enough money to cover the costs.

After the El Paso and Dayton shootings, New York recognized it needed to develop stronger gun laws to protect its residents, so in the summer of 2019, Governor Andrew Cuomo signed the following bills into laws: Extreme Risk ("Red Flag") Protection Order, Safe Storage/Child Access Prevention, Ban on Undetectable "Ghost" Guns, Background Check Extensions, Bump Stock Ban, Ban on Arming Educators, and Gun Buyback Program. Despite these efforts, gun violence continues to rise and threaten the lives and safety of its citizens.

**We invite students in grades 9 and 10 to participate in the 2021 Medical Marvels Competition, which consists of the following components:**

## Hypothetical challenge

You are a New York State Legislator. Gun violence continues to be a prevalent nationwide issue and is reflected every day in the news. Despite seven gun safety bills signed into law last summer by Governor Cuomo, gun violence continues to injure or take the lives of many individuals. Community members have contacted your office for a solution. In response, you will chair a statewide task force to develop more accessible resources for those



who suffer with behavioral/mental health disabilities, draft potential gun laws focused on the behavioral/mental health of gun buyers or owners, and integrate new safety and awareness measures throughout the community about gun violence.

Your solution will involve answering the following questions:

1. What research can be conducted to understand the causes of gun violence in NYS and to develop appropriate solutions?
2. What type of data will you collect to help draft potential gun laws and improve accessibility to mental and behavioral health resources?
3. How will you and your team come up with an innovative solution to address gun violence and accessibility to mental and behavioral health resources?
4. What tools can you use to bring awareness to your community about gun violence and to make your community safer?
5. How will you and your team measure the effectiveness of your solutions?

## Eligibility and requirements

To ensure participants receive consideration in the competition, please review the following eligibility and participation requirements:

### Evaluation and awards eligibility

**School eligibility** - Any New York State accredited educational institution located in Nassau, Suffolk, Manhattan, Queens, Brooklyn, the Bronx, Staten Island or Westchester is eligible to participate. Due to the expansion of the program, there will be a limited number of teams allowed to participate. The teams will be selected based on a first come first serve basis. A maximum of one team per institution will be accepted for awards and judging.

**Student eligibility** - Each team must have a minimum of three and maximum of six students. All student team members must be in 9th or 10th grade and actively enrolled in the educational institution designated on the submission.

**Number of teams** - Only one team per school can present for judging and awards at the Virtual Medical Marvels Competition on March 5, 2021. If you have multiple teams wishing to participate, we encourage schools to host an internal competition in order to select one team to represent the school. All teams from the school can join the virtual event on March 5, 2021.

### Participation requirements

Please submit your school's form of intent by December 10, 2020. The information requested in the form of intent includes:

- School information
- Advisor and science chairperson contact information
- Notation if you are planning on having an internal competition

This form of intent is not binding. If you have any questions, please email [medicalmarvels@northwell.edu](mailto:medicalmarvels@northwell.edu).



# Evaluation and awards

## Evaluation process

The team representing your school is required to submit a video link to [medicalmarvels@northwell.edu](mailto:medicalmarvels@northwell.edu) by **4:00 pm February 10, 2021**. All videos will undergo an evaluation and judging process, which will be conducted by a panel of scientists, clinicians and healthcare administrators.

## 2021 Program changes

Due to COVID-19, we have made some changes to this year's Medical Marvel's competition to protect the safety of the students and our employees as well as to ensure we have the ability to support the program should our region experience an increase in COVID cases and resources are needed in other capacities. Because of this, the program will be hosted virtually.

For this year, we have omitted the requirement of the 14 page research paper, and are only requiring students to research and present their findings through submitting a three minute video presentation. Schools may opt to assign their own research paper on this topic, but due to the ongoing pandemic and uncertain months ahead, we are unable to commit to reviewing written submissions. All submitted video presentations will be reviewed and eligible for awards.

We appreciate your understanding as we continue to navigate this pandemic and ensure the safety of our communities. We expect to return to our usual program once COVID is fully under control and we are back to normal operations.

## Awards

Winning schools will be awarded a monetary prize.

## Key dates

- **December 10, 2020:** Intent to participate due
- **February 10, 2021 at 4pm:** Video link submissions due to [medicalmarvels@northwell.edu](mailto:medicalmarvels@northwell.edu)
- **March 5, 2021 from 8am-1pm:** Virtual student presentations, workshops and awards ceremony

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**[Follow this link to register your team.](#)**

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Best of luck to all student teams!



For questions about the 2021 Medical Marvels Competition, please email [medicalmarvels@northwell.edu](mailto:medicalmarvels@northwell.edu) or contact Kathryn Graves, Project Manager of Workforce Readiness, at **(516) 472-6026**.

