



2022 Medical Marvels Research Competition

Defining the future of health care and
developing tomorrow's *innovators*

A research competition for 9th and 10th grade students

Sponsored by the Feinstein Institutes for Medical Research,
the Center for Workforce Readiness, and Northwell Health Talent Acquisition

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 health care 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 the 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.

Outline of the Assignment:

Students working in teams of three to six people are tasked with answering a hypothetical challenge outlined in this booklet. Each team must present an original video with a scientific poster (backed by their own research and findings) to compete at the conference.

A look back

In 2021, more than 200 students across 30 school districts participated in the eighth annual Medical Marvels Competition focused on gun violence.



Northwell Health is pleased to announce the 2022 Medical Marvels challenge focus:

Human Trafficking

Background on Human Trafficking

People who hear the term “human trafficking” likely think of crimes occurring overseas or images from movies and TV shows — but human trafficking is a global health concern affecting thousands of children and adults each year, including many New Yorkers. In 2019 alone, 11,500 human trafficking situations were reported to the U.S. National Human Trafficking Hotline. Because of its clandestine nature, human trafficking often goes unreported, making it difficult to calculate the exact number of victims.

Human trafficking is a criminal act and a human rights violation, and is defined by the United Nations as “the recruitment, transportation, transfer, harboring or receipt of persons, by means of the threat or use of force or other forms of coercion, of abduction, of fraud, of deception, of the abuse of power or of a position of vulnerability or of the giving or receiving of payments or benefits to achieve the consent of a person having control over another person, for the purpose of exploitation.” Under the Trafficking Victims Protection Act passed by Congress in 2000, sex and labor trafficking are considered to be severe forms of trafficking in persons.

Although anyone can become a victim of human trafficking, traffickers target individuals who live in vulnerable situations and who can be enticed by false promises, such as the ability to earn a lot of money, finding true love or securing a better future.

Traffickers can be strangers met through social media or even someone who is known and trusted. In New York, 805 victims of human trafficking were identified in 2019 by the National Human Trafficking Hotline, with a majority being involved in sex trafficking. In addition, the Safe Center Long Island served more than 500 victims of human trafficking in 2019.

Per a study published in the “Annals of Health Law,” 88 percent of nearly 100 trafficking victims were in contact with a form of health care while being exploited. This data indicates that health care providers are well positioned to identify and assist trafficked individuals. Although many health care facilities have policies in place, it is important to educate providers about risk factors and how to use a trauma-informed and compassionate approach to possible victims.

Unlike healthcare facilities, however, local schools do not have apparent policies or trainings in place for school staff. For young victims of human trafficking, school might be the only time away from their trafficker and the best place to identify suspected trafficking. As is the case with health care workers, teachers, school nurses and the school community must be alert to potential indicators of abuse and exploitation, especially of those in vulnerable situations.

With Long Island among the top 20 human trafficking jurisdictions in the country, according to the U.S. Department of Justice, it is essential for New York health care facilities and schools to establish better methods to help human trafficking victims.



We invite high school students in both 9th and 10th grade to participate in the 2022 Medical Marvels Competition, which consists of the following components:

Hypothetical challenge

You are the superintendent of a school district on Long Island affected by human trafficking. This public health issue has gone unnoticed by many school districts across the nation, and in response, you will chair a task force to:

- Develop educational resources, programs, and training on human trafficking for students, parents, and school staff.
- Establish partnerships with the health services team, transition services, social services, child protective services, and law enforcement.
- Draft potential district-wide policies and protocols focused on identifying and supporting victims of human trafficking.
- Identify services that can be provided to human trafficking victims after they're identified; including mental health resources.
- Support existing community efforts that assist human trafficking victims.

Your solution will involve answering the following questions:

1. What research can be conducted to understand human trafficking and to develop appropriate solutions within the school district and community?
2. What type of data will you collect to help draft potential district policies for human trafficking victims?
3. How will you and your team develop an innovative solution to address human trafficking and victims' accessibility to resources?
4. What tools can you use to bring awareness to your community about human trafficking?
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-served 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. 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 in March.

Participation requirements

Please submit your school's registration by December 10, 2021. The information requested includes:

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

If you have any questions, please email
medicalmarvels@northwell.edu.



Evaluation and Awards

Evaluation process

The team representing your school is required to submit a video link & electronic poster to medicalmarvels@northwell.edu by 4:00 p.m. on Thursday, February 10, 2022. All videos will undergo an evaluation and judging process, which will be conducted by a panel of scientists, clinicians, and healthcare administrators.

2022 Program changes

Due to COVID-19, and the response from past competitions, we have made some changes to this year's Medical Marvels Competition.

For this year, we have omitted the requirement of the 14-page research paper, and are requiring students to research and present their findings in a three-minute video presentation and a scientific poster.

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 this year.

All submitted video presentations and scientific posters 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.

Awards

Winning schools will be awarded a monetary prize.

Key dates

- December 10, 2021: Registration due
- February 10, 2022, at 4 p.m.: Video link & scientific posters due to medicalmarvels@northwell.edu
- March 4, 2022, from 8 a.m. – 1 p.m.: Medical Marvels Event Day with virtual presentations by students, virtual workshops, and awards ceremony



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

Best of luck to all
student teams!



**Medical Marvels
Research Competition**

If you have any questions about the
2022 Medical Marvels Competition,
please contact:

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