

To Stop Measles, Officials Lean on Network of Locals



An unlikely band of insiders, including a Brooklyn nurse with a personal touch, wins public-health officials' hopes to halt outbreak

BY BETSY MCKAY AND MELANIE GRAYCE WEST

To fight the biggest measles outbreak in the U.S. in more than a quarter-century, public-health officials have tried robocalls, vaccination audits, vaccination orders and \$1,000 fines. This is the standard playbook and it hasn't worked to stop the disease's spread.

Now, officials are increasingly counting on an informal network of community groups, religious leaders and local medical practitioners.

Blima Marcus, a 34-year-old oncology nurse practitioner, is working to counter antivaccination messages that have taken root

in New York City's insular ultra-Orthodox Jewish communities where measles has spread. Dr. Marcus, herself a member of an ultra-Orthodox community in Brooklyn, has gathered mothers in living rooms and written and printed booklets that challenge anti-vaccination assertions line by line. She wants to set up a hotline to explain the science behind vaccines and take questions.

"Simple education in a respectful, hand-holding manner really is going a lot further than anything else so far," said Dr. Marcus, who has a doctorate of nursing practice.

It's a tactic that is hard to replicate, is time intensive and relies heavily on the good-

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Locals Step In to Stop Measles

Current Outbreaks

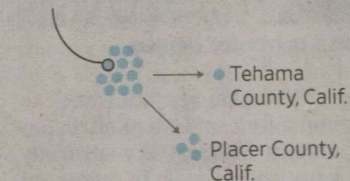
The outbreak in New York City, one of several current measles outbreaks designated by the CDC, is the longest declared eliminated in the country. The majority of cases in New York City have been in Brooklyn, with 419 out

Location of outbreak-related cases and where they've spread

- Initial state of outbreak
- Outbreak spread to another state
- Origin undetermined

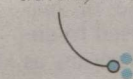
Butte County, Calif. 11 cases

Outbreak began March 2019, when first case was a man who had visited the Philippines.



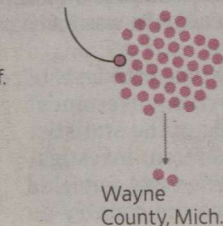
Sacramento County, Calif.

Outbreak began April 2019, first detected in two children who had traveled to Ukraine.



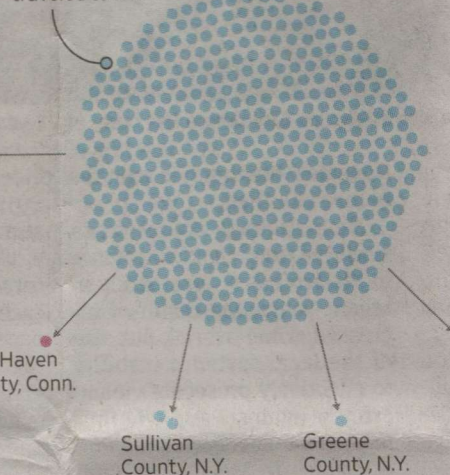
Oakland County, Mich. 40 cases

Outbreak began Oct. 2018, brought by a man visiting from NYC.



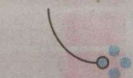
New York, N.Y. 423 cases

Outbreak began Sept. 2018, first detected in a child who had traveled to Israel.



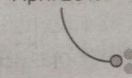
Los Angeles County, Calif. 4 cases

Outbreak began April 2019, first detected in person who had traveled to Vietnam.



Atlanta metro area, Ga.

Outbreak started April 2019.



Notes: Data based on most recent reports as of May 3, 2019. Outbreak-related cases only shows cases connected to one another. Sources: State and county health departments; CDC

Continued from Page One will of volunteers with other jobs. But these days, it's one of the best resources available to public-health officials who have struggled to contain the disease.

Standard public-health tools, which have been deployed successfully for years, are falling short in the face of an aggressive antivaccination campaign, growing exposure to measles in countries such as Israel, and a longstanding distrust of government or other outside sources of information. Since October, 423 cases have been reported in New York City.

Public-health authorities have had similar difficulties fighting measles in other close-knit communities in the U.S., including among the Amish in Ohio, Eastern Europeans in Washington state, and Somalis in Minnesota.

Grassroots approaches are becoming more important in public health, with infectious-disease outbreaks around the world—including Ebola in Democratic Republic of Congo—increasingly erupting in remote or insular communities, conflict zones and other areas where disease fighters have to grapple with economic, cultural or security challenges.

At the epicenter

The Centers for Disease Control and Prevention has formed a work group to seek new ways to counter an increasingly vocal antivaccine movement. Trusted sources within a community's own networks "can be more effective than we can" in educating people about vaccination, said Nancy Messonnier, an expert on immunization and respiratory diseases at the agency.

Vaccination rates among children have now reached a record high in the Williamsburg neighborhood of Brooklyn, the epicenter of the outbreak, officials say, due in part to outreach and a mandatory vaccination order implemented last month. Roughly 14% of young children in Williamsburg remain unvaccinated, the city's health commissioner, Oxiris Barbot, said on April 17.

New public-health tools are needed, said Herminia Palacio, New York City's deputy mayor for health and human services, including an "aggressive counter-messaging campaign to really counteract the very intentional misinformation and disinformation that is being dangerously propagated by a small, but well-organized coalition of groups across the country."

The stakes are high. Measles may be on a path to gain a foothold once again in the U.S., CDC officials warn.

New York City's measles outbreak began when an unvaccinated child was infected on a trip to Israel. It wasn't huge at first, with fewer than 10 new cases every week. Early on, the city health department ordered more than 100 schools and day-care centers to exclude students who didn't have the measles, mumps and rubella (MMR) vaccine.

In February, an unvaccinated, infected child at a Jewish school that didn't enforce the health department's exclusion order infected other unvaccinated children, resulting

in 28 new cases. That led to 17 secondary transmissions outside the school, fueling a surge in cases that continues.

Dr. Marcus, who works at Memorial Sloan Kettering Cancer Center, learned in October that antivaccination messages had taken root in ultra-Orthodox communities when a cousin invited her to join a text group. Many women weren't vaccinating their children, she said.

Alarmed by what she read, she did some research and began challenging claims that vaccines cause autism and cancer and that they can cause measles, citing scientific studies. "I hate liars," she said of her reasons for taking on the antivaccination campaign.

Skepticism about vaccines has quietly grown over the past few years, spread through written materials, conference calls and face-to-face conversations, according to city officials and local pediatricians. Some families have received religious exemptions to vaccination—a pathway some New York state legislators are trying to close.

Vaccine messages

A group called Parents Educating and Advocating for Children's Health, or Peach, circulated a 40-page document titled "The Vaccine Safety Handbook: An Informed Parent's Guide." It mixed antivaccination claims with first-person stories and Jewish "points of interest."

Authors of the Peach document didn't respond to emails and calls for comment. Jennifer Margulis, a writer in Ashland, Ore., said the authors—parents in New York City's ultra-Orthodox community—asked her to speak for them because they are afraid to respond, believing they face a "double hate" of being Jewish and against vaccination.

Parents do not become skeptical about vaccines over any one document, said Ms. Margulis, who described herself as a children's health advocate who thinks parents should be able to choose whether they vaccinate their children. Instead, they start questioning vaccines when a child has a bad reaction to one. She said the parent authors don't understand why a

magazine distributed five years ago has anything to do with the measles outbreak now.

Sholom Laine, who lives in the Crown Heights neighborhood of Brooklyn, hasn't vaccinated his six daughters and two sons, who range from preschool age to teenagers. He and his wife, Esther, filed a lawsuit last year against a local yeshiva over the school's reluctance to accept a religious exemption for their youngest, whom they had planned to enroll in fall 2018.

The child's enrollment is still pending for the next school year, said Mr. Laine, who declined to specify the basis of the request for a religious exemption. He said the decision to vaccinate should be a personal choice. "In the 1950s they had the measles. And everybody had the measles at a point in time, or whatever, and it was all good," he said.

Chaim Greenfeld, the father of two young sons in Williamsburg, takes issue with vaccine skeptics. "The people who don't want to get vaccinated, it's not acceptable to me. Totally not," he said. "They don't even have any Jewish reason that's telling them not to do it."

Several women in the text

group Dr. Marcus had joined started messaging her privately after she responded to their concerns with scientific research, she said. They thanked her for her answers, saying they felt someone was taking their concerns seriously, Dr. Marcus said.

"It's the first time someone is giving us actual information, and doing it respectfully and not making them feel stupid," she said they told her.

'This is a little bit more approachable to the families in the community.'

Sensing a thirst for information, Dr. Marcus organized three workshops, gathering 10 to 20 people at a time and leading them through slide-show presentations explaining vaccine science.

In January, she stopped leading the workshops after starting her job at Memorial Sloan Kettering, with longer hours than a previous position. She began putting together a



Blima Marcus is working to counter an antivaccination campaign.

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t of 423 cases occurring in the borough.

Rockland County, N.Y.

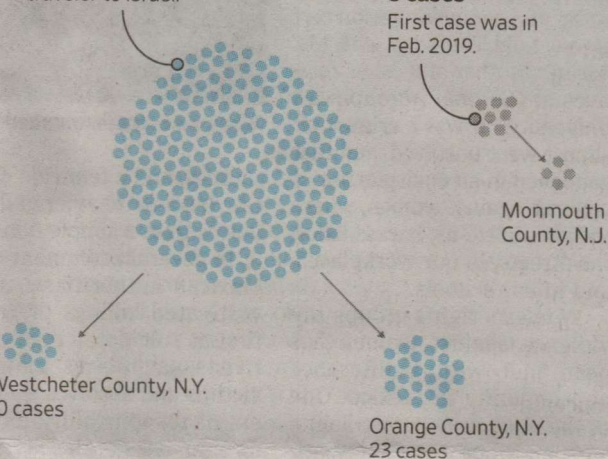
212 cases

Outbreak began Oct. 2018, first detected in traveler to Israel.

Ocean County, N.J.

8 cases

First case was in Feb. 2019.



Baltimore County, Md.

4 cases

Outbreak began April 2019, first detected in resident who had traveled domestically to an unspecified location of a current outbreak.

to counter the antivaccination assertions in the Peach book and training more to run workshops.

er nurses in the Orthodox Jewish Nurses Association of which Dr. Marcus was at the time, wanted to, too. She and a team weeks researching and ing a 110-page manual, calling it PIE, for "Performed & Educated."

women at the workshop and in the text group y detailed questions, so Marcus insisted on detailed ses. "The antivax movement done a really good Marcus said. Her audience members "need to have ta. They need to have ood answers."

nurses listed each claim d found in the Peach ok, followed by their s and sources. Under the measles will build dren's immune systems ke them stronger," they False & Dangerous!" in letters, citing a 2015

ction titled "Autism tured a chart from a k Japanese study that autism rates continue se even after the MMR ion rate declined sig- y among children in

e of Dr. Marcus's work n measles cases surg- ility health department r to distribute a ver- the manuscript for They were concerned virus would spread with holiday travel.

arcus and her team o prepare and print pies of a 20-page ver- led "A Slice of PIE." r read: "Making PIEs EACH."

ternoon during Pass- k, Dr. Marcus scam- helps to distribute pies of the booklet e sitting in a friend's asking everyone she help. Within a few he found someone r, and another group opping cart, to drop nto door slots, mail- d offices for \$20 an

alth department has . Marcus to print ore copies of the PIE

booklet to distribute to households.

Dr. Marcus and the group of nurses working with her have spent just under \$12,000 of their own money covering costs so far. The organization she formed, called the EMES Initiative ("Engaging in Medical Education with Sensitivity"), has now secured funding from private donors to cover their costs, she said.

'The right path'

Dr. Marcus said it's too early to know whether her approach is working. A little anecdotal evidence "shows we're on the right path," she said. After one workshop, a woman got the MMR shot for her four children, she said. Another woman called a Google phone line Dr. Marcus's group had set up, asking questions about the flu shot. She later got the shot for herself and her family, Dr. Marcus said.

Another group, the recently-formed Jewish Orthodox Women's Medical Association, is launching a confidential hotline that families in the Orthodox Jewish communities can call to request vaccinations in their homes, for convenience and privacy. The group has formed a cadre of volunteer physicians to provide the service, said Eliana Fine, founder and CEO and a medical student at the Renaissance School of Medicine at Stony Brook University.

Steven Goldstein, a pediatrician in Williamsburg, found a handful of copies of the "A Slice of PIE" booklet when he returned to his office after Passover. He has asked for more copies to hand out to his patient families who questioned vaccines. "This is a little bit more approachable to the families in the community" than another booklet he has, he said.

Many parents still aren't heeding a health-department recommendation that babies between 6 and 11 months get an MMR dose, he said.

"I'm hoping it will get a lot of traction," he said of the booklet. "We're not making as much progress as we'd like to make."

—Katie Honan contributed to this article.