	This is a preliminary, unedited transcript. The statements within may be inaccurate, incomplete, or misattributed to the speaker. A link to the final, official transcript will be posted on the Committee's website as soon as it is available.
1	NEAL R. GROSS & CO., INC.
2	RPTS MORRISON
3	HIF058020
4	
5	
6	CONFRONTING A GROWING PUBLIC
7	HEALTH THREAT: MEASLES OUTBREAKS IN THE
8	U.S.
9	WEDNESDAY, FEBRUARY 27, 2019
10	House of Representatives
11	Subcommittee on Oversight and Investigations
12	Committee on Energy and Commerce
13	Washington, D.C.
14	
15	
16	
17	The subcommittee met, pursuant to call, at 10:01 a.m., in
18	Room 2123 Rayburn House Office Building, Hon. Diana DeGette
19	[chairwoman of the subcommittee] presiding.
20	Members present: Representatives DeGette, Schakowsky,
21	Kennedy, Ruiz, Kuster, Castor, Sarbanes, Tonko, Clarke, Peters,
22	Pallone (ex officio), Guthrie, Burgess, McKinley, Griffith,

2

Brooks, Mullin, Duncan, and Walden (ex officio).

Also present: Representative Soto.

25

23

24

26

27

28

29

30

31

32

33

34

35

36

37

38

39

40

41

42

43

44

Staff present: Mohammad Aslami, Counsel; Kevin Barstow, Chief Oversight Counsel; Billy Benjamin, Systems Administrator; Jacquelyn Bolen, Professional Staff; Jesseca Boyer, Professional Staff Member; AJ Brown, Counsel; Jeff Carroll, Staff Director; Jacqueline Cohen, Chief Environment Counsel; Sharon Davis, Chief Clerk; Luis Domingues, Health Fellow; Jennifer Epperson, FCC Detailee; Elizabeth Ertel, Office Manager; Adam Fischer, Policy Analyst; Jean Fruci, Energy and Environment Policy Advisor; Evan Gilbert, Press Assistant; Lisa Goldman, Counsel; Waverly Gordon, Deputy Chief Counsel; Tiffany Guarascio, Deputy Staff Director; Caitlin Haberman, Professional Staff Member; Alex Hoehn-Saric, Chief Counsel, C&T; Megan Howard, FDA Detailee; Zach Kahan, Outreach and Member Service Coordinator; Rick Kessler, Senior Advisor and Staff Directory, Energy and Environment; Saha Khaterzai, Professional Staff Member; Chris Knauer, Oversight Staff Director; Brendan Larkin, Policy Coordinator; Una Lee, Senior Health Counsel; Jerry Leverich, Counsel; Jourdan Lewis, Policy Analyst; Perry Lusk, GAO Detailee; Dustin Maghamfar, Air

and Climate Counsel; John Marshall, Policy Coordinator; Kevin
McAloon, Professional Staff Member; Dan Miller, Policy Analyst;
Jon Monger, Counsel; Elysa Montfort, Press Secretary; Phil
Murphy, Policy Coordinator; Lisa Olson, FERC Detailee; Joe
Orlando, Staff Assistant; Kaitlyn Peel, Digital Director; Mel
Peffers, Environment Fellow; Alivia Roberts, Press Assistant;
Tim Robinson, Chief Counsel; Chloe Rodriguez, Policy Analyst;
Nikki Roy, Policy Coordinator; Samantha Satchell, Professional
Staff Member; Andrew Souvall, Director of Communications,
Outreach and Member Services; Sydney Terry, Policy Coordinator;
Kimberlee Trzeciak, Senior Health Policy Advisor; Rick Van Buren,
Health Counsel; Eddie Walker, Technology Director; Teresa
Williams, Energy Fellow; Tuley Wright, Energy and Environment
Policy Advisor; C.J. Young, Press Secretary; Jennifer Barblan,
Minority Chief Counsel, O&I Mike Bloomquist, Minority Staff
Director; Adam Buckalew, Minority Director of Coalitions and
Deputy Chief Counsel, Health; Robin Colwell, Minority Chief
Counsel, C&T Jerry Couri, Minority Deputy Chief Counsel,
Environment & Climate Change; Jordan Davis, Minority Senior
Advisor; Kristine Fargotstein, Minority Detailee, C&T Margaret
Tucker Fogarty, Minority Staff Assistant; Melissa Froelich,
Minority Chief Counsel, CPAC; Theresa Gambo, Minority Human

Resources/Office Administrator; Caleb Graff, Minority
Professional Staff Member, Health; Brittany Havens, Minority
Professional Staff, O&I Peter Kielty, Minority General Counsel;
Bijan Koohmaraie, Minority Counsel, CPAC; Tim Kurth, Minority
Deputy Chief Counsel, C&T Ryan Long, Minority Deputy Staff
Director; Mary Martin, Minority Chief Counsel, Energy &
Environment & Climate Change; Sarah Matthews, Minority Press
Secretary; Brandon Mooney, Minority Deputy Chief Counsel, Energy;
James Paluskiewicz, Minority Chief Counsel, Health; Brannon
Rains, Minority Staff Assistant; Zach Roday, Minority
Communications Director; Kristen Shatynski, Minority
Professional Staff Member, Health; Alan Slobodin, Minority Chief
Investigative Counsel, O&I Peter Spencer, Minority Senior
Professional Staff Member, Environment & Climate Change; Natalie
Sohn, Minority Counsel, O&I Danielle Steele, Minority Counsel,
Health; Everett Winnick, Minority Director of Information
Technology; and Greg Zerzan, Minority Counsel, CPAC.

This is a preliminary, unedited transcript. The statements within
may be inaccurate, incomplete, or misattributed to the speaker. A
link to the final, official transcript will be posted on the
Committee's website as soon as it is available.

Ms. DeGette. The Subcommittee on Oversight and Investigations will now come to order.

Today, the subcommittee is holding a hearing entitled, "Confronting a Growing Public Health Threat: Measles Outbreaks in the U.S."

The purpose of today's hearing is to examine the public health surveillance and infrastructure response to the current measles outbreaks in the United States.

[Pause.]

The chair now recognizes herself for the purposes of an opening statement.

Today, we will examine a serious public health emergency that is threatening communities across the country. Since the start of this year alone, more than 159 people across 10 states have been infected by measles.

This is a highly contagious and potentially deadly disease that was once declared eliminated here in the United States, thanks to the development of a successful preventive vaccine.

Yet, despite the previous success, as we sit here today, we have communities across the country scrambling to protect their residents and we have parents who are reading daily headlines about an outbreak, worried how they are going to protect their

This is a preliminary, unedited transcript. The statements within
may be inaccurate, incomplete, or misattributed to the speaker. A
link to the final, official transcript will be posted on the
Committee's website as soon as it is available.

children and their families.

If there was ever one topic that should transcend politics or party lines, this should be it. On behalf of the American people, it is this committee's job to ensure that our public health agencies are doing everything they can to prevent the spread of this disease.

And I can tell you, right now, this committee has serious concerns about how our nation's public health system is responding to the current outbreak. What we accomplished less than 20 years ago in eliminating this disease was truly amazing and we want to know exactly can what this administration is doing to once again stop the spread of this highly contagious disease.

We also want to know how we got ourselves back into this situation and what our agencies are doing to prevent another outbreak, such as this one, from happening again.

Before the measles vaccine was developed in 1963, there were half a million cases of the measles being reported every year to the CDC. Forty-eight thousand people a year were being sent to the hospital and, as a result, as many as 500 people a year died.

It wasn't until the development of the measles, mumps, and rubella vaccine -- known as the MMR vaccine -- that we, as a

This is a preliminary, unedited transcript. The statements within
may be inaccurate, incomplete, or misattributed to the speaker. A
link to the final, official transcript will be posted on the
Committee's website as soon as it is available.

country, were able to stop this horrific illness.

But despite that success, here we are again, as I said, less than 20 years later, dealing with the fear associated with yet another outbreak of the disease.

As of now, there have been 127 reported cases of the measles in 10 states, including in my home state of Colorado. In fact, in my district last month, the Denver Public Health Department was forced to issue a measles exposure warning when an adult acquired the measles after traveling internationally.

Now, that seems to be isolated, but the recent outbreaks are a real cause for national concern. The national measles vaccination rate of children between 19 and 35 months old is currently at 91 percent.

That may seem high to some, but given the highly contagious nature of measles, it is well below the 95 percent vaccination rate that is required to protect communities and give it what is known as "herd immunity."

This so-called "herd immunity" is particularly vital to protecting those who cannot be, or are not yet, vaccinated against the measles, such as infants or those with prior medical conditions who are at a higher risk of suffering severe complications from the vaccine.

This is	a a	prelimina	ry, uned	ited t	ranscript.	The st	atements	within
may be	ina	ccurate,	incomple	te, or	misattrib	uted to	the spe	aker. A
link to	th t	e final,	official	trans	cript will	be pos	ted on t	he
Committ	ee'	s website	as soon	as it	is availa	ble.		

As our public health agencies have repeatedly emphasized, reaching that 95 percent vaccination rate is critical to preventing outbreaks such as the one we are experiencing today.

While the overall national rate of MMR vaccinations is currently at 91 percent, the rate in some communities is much lower. Some are as low as 77 percent. In fact, Colorado has one of the lowest rates of kindergartners vaccinated for MMR in the country, well below the rate necessary to protect vulnerable children from this potentially deadly disease.

Outbreaks, like the one we are seeing with measles, remind us of just how interconnected our communities are. They remind us of how the decisions of one community can directly affect other communities across the country and we have -- as a nation, to stop the spread of deadly diseases, we have to address the root cause of the problem and we have to identify concrete steps.

We have to provide parents and community leaders with real science-based information, not only about how vaccines are safe, but why they are so important. We need to support additional research into vaccine safety to further increase consumer confidence in these vaccines.

And we need to strengthen our public health infrastructure at all levels of our government to better prepare for and respond

This is a preliminary, unedited transcript. The statements within	1
may be inaccurate, incomplete, or misattributed to the speaker. A	Λ
link to the final, official transcript will be posted on the	
Committee's website as soon as it is available.	

to these outbreaks.

We have to work together to protect the most vulnerable among us and we have got to ensure that an outbreak of measles once again becomes a rarity in this country.

I want to thank our witnesses, Dr. Messonnier, who is here on behalf of the Centers for Disease Control and Prevention, who is on the front lines of preventing this, and, of course, Dr. Anthony Fauci from the National Institutes of Health, no stranger to this committee on a variety of issues, who is here to talk about his in-depth knowledge of the vaccines and how we can prevent these diseases from spreading in the U.S.

Thank you both for being here and I am now happy to recognize the ranking member of the subcommittee, Mr. Guthrie, for five minutes for his opening statement.

Mr. Guthrie. Thank you, Chair DeGette, for holding this important and timely hearing, and this is an area of bipartisan interest. Measles is an extremely contagious virus. It can cause significant respiratory symptoms, fever, and rash.

In some cases, the consequences can be severe. One in 20 children with measles develops pneumonia. One in a thousand children develop brain swelling that can cause brain damage.

One or two in a thousand children who contract measles will die.

Fortunately, measles was declared eliminated in the United States in 2000 because the nation had gone more than 12 months without any contagious disease transmission. Public health experts believe this progress was achieved because of the very safe combination of measles-mumps-rubella -- or MMR -- vaccine, very high vaccination rates and a strong public health system to detect and respond to outbreaks.

However, elimination does not mean the disease was completely eradicated. The disease remains in many parts of the world. There are about 20 million cases worldwide each year.

Measles returns to the U.S. when the infected travelers bring the disease back to parts of the country where some parents have chosen not to vaccinate their children. Because measles is so contagious, it is estimated 93 to 95 percent of people in a locality need to be vaccinated to achieve population immunity.

This level of population immunity provided by very high vaccination rates prevents outbreaks and sustained transmission of measles. According to CDC tracking, while national vaccination rates remain high, estimated MMR vaccination rates among 13- to 17-year-old teenagers can vary widely, ranging from 77.8 percent to 97.9 percent across states and local counties in the United States.

We currently have multiple measles outbreaks in the United As of February 21st, 2019, the CDC reported that there are 159 confirmed cases of measles this year in 10 states.

My home state of Kentucky was recently added to the list. Unfortunately, this current outbreak is continuing a recent An average of 63 measles cases were reported to CDC from 2000 to 2007.

However, from 2011 to 2017, the annual average of reported cases increased to 217. The CDC told the committee staff that in the last five years there have been 26 measles outbreaks involving five or more people. Seventy-five percent of those cases spread in the local close-knit communities with groups of unvaccinated people.

These outbreaks are tragic, since they were completely Every state except three have enacted religious exemptions for parents who wish not to vaccinate their children. There are 17 states that allow a personal or philosophical exemption, which means that most people can opt out for any reason.

For example, in Washington State, just 0.3 percent of Washington's families with kindergartners use a religious exemption while 3.7 percent of families use a personal exemption and .8 percent use a medical exemption.

216

217

218

219

220

221

222

223

224

225

226

227

228

229

230

231

232

233

234

235

236

Vaccine exemptions have increased in the past three years to a median 2.2 percent of kindergartners among all states. With recent links to pockets of under vaccination, some state legislators are looking to tighten or eliminate certain types of exemptions that allow parents to not have their children immunized.

After the Disneyland-linked outbreak of measles in 2014, the state of California ended a religious and personal exemption for vaccines. The Washington legislature is working on legislation that substantially narrows the exemptions for vaccination that would eliminate the personal or philosophical exemption while tightening the religious exemption.

In recent weeks, state legislators in New Jersey, New York, Iowa, Maine, and Vermont have proposed eliminating religious exemptions for vaccines. However, last week the Arizona House Health and Human Service Committee approved three bills to expand exemptions for mandatory vaccinations.

Given the concerns raised by the measles outbreak in various parts of the nation and recent state legislative activity, it is appropriate to have this hearing to provide greater discussion and examination at a national level.

I welcome our two expert witnesses, Dr. Messonnier of the

CDC, and Dr. Anthony Fauci of the National Institute of Allergy and Infectious Diseases.

I look forward to your testimony and I yield back my time. Ms. DeGette. The gentleman yields back.

The chair now recognizes the chairman of the full committee, Mr. Pallone, for five minutes for an opening statement.

The Chairman. Thank you, Madam Chair.

This committee has a long history of addressing public health concerns and infectious disease crises. Today, we are here to discuss the troubling increase in the number of measles cases here in the United States.

This issue hits close to home for me. Just this past December, 33 cases of measles were confirmed in Ocean and Passaic Counties of my home state of New Jersey. And Madam Chair, my written statement actually says that, fortunately, the outbreak in New Jersey is now over.

But the reality is I have to change my written statement because I was reading through my press clips this morning and this was front the Bergen Record, which is a publication -- a daily newspaper in the northern part of the state -- and it says, I quote, "Confirmed cases of measles exposure reported in Bergen County. A New Jersey man who has been diagnosed with measles

260

261

262

263

264

265

266

267

268

269

270

271

272

273

274

275

276

277

278

279

280

may have exposed people in Bergen County to the disease earlier this month, particularly at two locations in Hillsdale, state health officials said. Exposures would have occurred between February 17th and Monday," -- this past Monday -- "a spokeswoman for the state health department said."

So it isn't true that the outbreak is over in New Jersey.

This is -- these are -- this is a case now in a county where

measles had been previously reported.

So as of this morning, there have been -- and that doesn't count this -- there have been 159 measles cases reported across the nation already this year and there are now six outbreaks of three or more cases in four states. Not only are we seeing a troubling increase in cases, but the number of outbreaks also continues to grow and it is deeply disturbing.

The reemergence of this highly contagious vaccine-preventable disease poses a threat beyond the pockets of communities in which it arises. It is particularly dangerous to infants, children under the age of five, those who are pregnant, and people with compromised immune systems.

All these people are at higher risk of severe complications from measles. But what is particularly disconcerting is that this is a public health problem for which science has already

provided a solution: a safe and effective vaccine. There is overwhelming confidence among researchers, public health officials, and parents in the MMR vaccine.

Yet vaccine hesitancy and, to a lesser degree, vaccine access concerns are behind the growing number of measles cases in the United States since 2010.

I know that we will discuss both of these issues and hear from our experts as to the federal government's responsibility in addressing both. But I would also like to hear from witnesses about one particular area of great concern to me, and that is the proliferation of disinformation about the safety and efficacy of the MMR vaccine.

I am deeply troubled by the role digital media plays in perpetuating myths and fears regarding measles. It is undermining the facts on how to safely and effectively prevent measles and other vaccine-preventable diseases.

For example, recent media reports found that users on YouTube and Facebook are steered towards anti-vaccination content due to the platform's algorithms.

Both companies have said they are taking steps to address the promotion of conspiracy theories, but we must keep our eye on where this misinformation will pop up next, particularly when

This is a preliminary, unedited transcript. The statements within
may be inaccurate, incomplete, or misattributed to the speaker. A
link to the final, official transcript will be posted on the
Committee's website as soon as it is available.

we know there is a preponderance of evidence that the MMR vaccine is safe and effective and that there are numerous measures in place to continue to monitor and assess its safety and the safety of other vaccines.

I am deeply troubled that parents are being inundated with distortions and misinformation campaigns when they are going online to try to make informed decisions about their child's health.

And I look forward to hearing from Dr. Messonnier -- if I am pronouncing it right -- and Dr. Fauci about what is driving the recent measles outbreak. I would also like to know what efforts are underway by the CDC and NIH to address this growing public health threat and where they still need additional support.

So, hopefully, this will be a hearing where we try to get to the bottom of what is actually happening out there, and thank you for our witnesses.

Thank you, Madam Chair. This is a very important hearing. Thank you.

Ms. DeGette. The gentleman yields back.

The chair now recognizes the ranking member of the full committee, Mr. Walden, for five minutes for the purposes of an opening statement.

Mr. Walden. Good morning, Madam Chair. Thank you for holding this hearing.

The reemergence of vaccine-preventable diseases including measles coincided with the under vaccination as a major public health concern. World Health Organization last month called vaccine hesitancy one of the ten biggest threats to global health, noting the shocking 30 percent increase in measles cases worldwide last year.

In 2000, measles was considered to have been eliminated in the United States. Last year, the U.S. had its second most cases since 2000. The current measles outbreak showcases the problem of under vaccination.

It is a problem that hits close to home for me since 65 measles in the outbreak have mainly occurred in Clark County, Washington, a suburb of Portland, Oregon, with four in Multnomah County, Oregon, for a total of 69 confirmed measles cases.

Measles exposure even reached my district with an infected person from Clark County visiting a trampoline park in Bend, Oregon. While there have been no confirmed cases resulting from that particular exposure, this highlights the reach of the measles outbreak.

Unfortunately, the case information suggests the region near

This is a preliminary, unedited transcript. The statements within
may be inaccurate, incomplete, or misattributed to the speaker. A
link to the final, official transcript will be posted on the
Committee's website as soon as it is available.

Portland has been an area of under vaccination. Most of these cases involve people who are not vaccinated and most of those infected were children between the ages of one and ten.

County public health officials are confronted with directing hundreds of susceptible families who have been exposed to the virus at more than three dozen locations including a Portland Trailblazers basketball game, schools, churches, and store such as Costco and Wal-Mart.

There are important reasons for getting the measles vaccine. Measles is a highly contagious infectious disease that spreads through coughing and sneezing. Health officials say the virus is so contagious that if an unvaccinated person walks through a room after someone with measles have left, there is a 90 percent chance that an unvaccinated person will get that disease.

This can be a very serious disease. Measles infection typically causes a high fever and rash. About one of four people who gets measles will be hospitalized.

Infection can lead to ear infections, hearing loss and, in rare cases, brain swelling and even death. Measles vaccine is highly effective and may be one of the most effective vaccines around.

Two doses are about 97 percent effective and since the

This	is	a p	relimina	ry,	uned	ited	l tr	ans	cript.	The	sta	teme	ents	with:	in
may l	oe i	nac	curate,	inco	mplet	te,	or	mis	attrib	uted	to	the	spea	aker.	Α
link	to	the	final,	offi	cial	tra	nsc	rip	t will	be r	post	ed o	on th	ne	
Comm	itte	ee's	website	as	soon	as	it	is	availa	ble.					

introduction of the combination MMR vaccine there has been a 99 percent reduction in the number of measles cases compared to the pre-vaccine era.

It not only protects you but others as well, particularly vulnerable infants who cannot be vaccinated. This year can help provide important information -- this hearing -- I am sorry -- can help provide important information to address questions for some people about the safety of the vaccine as well as heightened awareness about effectiveness of the vaccine and the importance of getting vaccinated.

If we don't reverse the downward trend of vaccination we risk bringing back measles in full force.

So I welcome both of our witnesses today to provide their expertise about the disease of measles and insights into the facts and value of measles vaccine.

Dr. Nancy Messonnier, thank you for your service and your leadership in various senior capacities at the Centers for Disease Control and Prevention.

Dr. Anthony Fauci, the director of National Institutes of Health Institute of Allergy and Infectious Diseases -- sir, you need no introduction, having testified probably hundreds of times before our committee.

ints is a prefilitiary, unediced cranscript. The scatements within
may be inaccurate, incomplete, or misattributed to the speaker. A
link to the final, official transcript will be posted on the
Committee's website as soon as it is available.

However, on this occasion, I think you should be recognized, sir, for more than 50 years of public service including your 35th anniversary year as director of the National Institute of Allergy and Infectious Diseases and for your achievements.

[Applause.]

You have made substantial contributions to HIV/AIDS research. You have helped develop therapies for formerly fatal diseases. With many honors, you have been awarded the Lasker Award and the Presidential Medal of Freedom.

Chair DeGette, I really think we need to congratulate him. So we look forward to your testimony and to learning more in this committee about we should do, going forward.

With that, I will yield the balance of my time to Dr. Burgess.

Mr. Burgess. I thank the chairman for the recognition.

In full disclosure, I am a measles survivor. I was of an age where the measles vaccine was not available.

Even though I was very young when that happened, I still remember the clinical course with the measles of hard shaking chills, the muscle pain, and, of course, the rash that is pathognomonic of measles.

I will tell you that we forget about some of the complications of measles. I took the liberty of printing out a couple of pages

This is a pr	reliminary,	unedited	transcript.	The statem	ents within
may be inacc	curate, inc	omplete, c	or misattribu	ited to the	speaker. A
link to the	final, off	icial tran	script will	be posted	on the
Committee's	website as	soon as i	t is availab	ole.	

from Harrison's Principles of Internal Medicine.

Let me just run through some of the highlights: laryngitis, croup, bronchitis, otitis media, ear infections, pneumonia both viral and secondary bacterial, fever, headache, drowsiness, coma, seizures. Ten percent of patients who have measles encephalitis do not survive. Transverse myelitis following measles has been reported, similar to polio. Gastrointestinal complications, hepatitis, appendicitis, ileocolitis, mesenteric adenitis.

Other rare complications include myocarditis, glumerulonephritis, pulmonary nephritis, post-infection thrombocytopenia purpura. It is a serious illness. It is entirely vaccine preventable. I am grateful we are having the hearing today. I yield back.

Ms. DeGette. I thank the gentleman for yielding and, Mr. Walden, I really thank you for recognizing Dr. Fauci. He really is a true treasure and we are always happy to see him.

I am going to ask unanimous consent that members' written opening statements be made part of the record.

Without objection, so ordered.

[The information follows:]

I also ask unanimous consent that Energy and Commerce members not on the Subcommittee on Oversight and Investigations be permitted to participate in today's hearing.

Without objection, so ordered.

457

458

459

460

461

462

463

464

465

466

467

468

469

470

471

472

473

474

475

476

477

478

I would now like to introduce our witnesses, who have already been introduced by a number of opening statements.

Dr. Nancy Messonnier, who is with the National Center for Immunization and Respiratory Diseases at the CDC, and Dr. Anthony Fauci, the director of the National Institute for Allergy and Infectious Diseases at the National Institutes of Health.

Both of you are aware, I know, that the committee is holding an investigative hearing and, as such, has had the practice of taking testimony under oath.

So either of you have any objections to taking your testimony under oath?

Let the record reflect the witnesses have responded no. The chair then advises you that under the rules of the House and the rules of the committee you are entitled to be accompanied by counsel. Do you desire to be accompanied by counsel today?

Let the record reflect the witnesses have answered no. you would then, please rise and raise your right hand so you may be sworn in.

This is a preliminary, unedited transcript. The statements within
may be inaccurate, incomplete, or misattributed to the speaker. A
link to the final, official transcript will be posted on the
Committee's website as soon as it is available.

[Witnesses sworn.]

479

480

481

482

483

484

485

486

487

488

489

490

491

Let the record the reflect -- you may be seated -- let the record reflect that the witnesses have responded affirmatively and you are now under oath and subject to the penalties set forth in Title 18 Section 1001 of the U.S. Code.

And the chair will now recognize our witnesses for a five-minute summary of their written statements. As both of you know, there is a microphone and a series of lights in front of you.

The light turns yellow when you have a minute left and it turns red to indicate that your time has come to an end.

So, Dr. Messonnier, I recognize you for your opening statement. Thank you.

TESTIMONIES OF NANCY MESSONNIER, M.D. (CAPT, USPS, RET),
DIRECTOR, NATIONAL CENTER FOR IMMUNIZATION AND RESPIRATORY
DISEASES (NCIRD), CENTERS FOR DISEASE CONTROL AND PREVENTION;
ANTHONY FAUCI, M.D., DIRECTOR, NATIONAL INSTITUTE FOR ALLERGY
AND INFECTIOUS DISEASES, NATIONAL INSTITUTES OF HEALTH

## TESTIMONY OF DR. MESSONNIER

Dr. Messonnier. Thank you.

Good morning, Chair DeGette, Ranking Member Guthrie, and members of the committee. I am Dr. Nancy Messonnier. I am the director of the National Center for Immunization and Respiratory Diseases at CDC.

Thank you for the opportunity to speak with you today.

Outbreaks of measles have, once again, been prominent in the headlines. From January 1st to February 21st, 159 cases of measles have been confirmed in 10 states, including California, Colorado, Connecticut, Georgia, Illinois, Kentucky, New York, Oregon, Texas, and Washington.

In 2018, 372 people with measles were reported from 25 states and the District of Columbia. Most cases have been unvaccinated. Measles outbreaks have been and continue to be a constant threat to the health of the American people.

While measles has been eliminated in the U.S. since 2000, measles is circulating in many parts of the world and importations remain a challenge.

Unvaccinated U.S. residents traveling abroad are at risk for measles and returning unvaccinated U.S. residents and foreign visitors to the U.S. may develop measles and expose their families and communities.

Nationally, we enjoy high measles vaccination coverage.

However, there are pockets of people who are vaccine hesitant, who delay or even refuse to vaccinate themselves and their children.

Outbreaks of measles occur when measles gets into these communities of unvaccinated people. Those choosing not to vaccinate tend to live near each other. Some of these are what we call close-knit communities, people who share common religious beliefs or racial ethnic background. Others are people who have strong personal belief against vaccination.

In the past five years, there have been 26 measles outbreaks of more than five cases. Twelve of these were in close-knit communities including outbreaks in a Somali community in Minnesota in 2017 and orthodox Jewish communities in New York City and New York State in 2018.

These 12 outbreaks account for 75 percent of cases over the past five years. Vaccine hesitancy is the result of a misunderstanding of the risk and seriousness of disease combined with misinformation regarding the safety and effectiveness of vaccines.

However, the specific issues fueling hesitancy varies by community. Because vaccine hesitancy remains a highly localized issue, the strategy to address these issues need to be local with support from CDC. Strong immunization programs at the state and local levels are critical to understanding the specific issues and empowering local action.

CDC also works to support state and local public health efforts through research to understand these reasons and develop targeted strategies to address hesitancy.

In addition, a rapid response coordinated across local, state, and federal jurisdictions is critical to control of outbreaks. The public health immunization infrastructure, the systems, and people is the backbone for such a response.

Front line public health workers and clinicians across the country are following up on people potentially exposed to measles and recent outbreaks.

A critical component of our immunization infrastructure is

the Vaccines for Children program. Enacted in 1994 in response to a large measles outbreak, VFC is celebrating its 25 anniversary.

Because of VFC, we have seen significant decreases in the disparities in vaccination coverage that previously existed.

I would like to acknowledge and thank Congress for the leadership they have shown in supporting VFC and providing us this national treasure.

Our investments in the immunization program have been of great benefit to our children, our communities, and our country.

Immunization continues to be one of the most cost-effective public health interventions.

Each dollar invested in the childhood immunization program earn \$10 of societal savings and \$3 in direct medical savings. Immunizing our children is the social norm with only 1 percent of children receiving no vaccines. Not only that, most parents continue to have confidence in the safety and effectiveness of vaccines.

In many ways, however, we are a victim of our own success.

Because of our success, fewer and fewer doctors and parents have witnessed the serious and sometimes life-threatening consequences of vaccine-preventable diseases, or VPDs.

This	is	a p	relimina	ry,	uned	ited	l tr	ans	cript.	The	sta	teme	ents	with	in
may l	oe i	nac	curate,	inco	mplet	te,	or	mis	attrib	uted	to	the	spea	aker.	Α
link	to	the	final,	offi	cial	tra	nsc	rip	t will	be r	post	ed o	on th	ne	
Comm	itte	ee's	website	as	soon	as	it	is	availa	ble.					

Because of our success, we live in a time when outbreaks of VPDs make headlines and are not just seen as a routine and sometimes tragic part of childhood.

Because of our success, parents may wonder if vaccines are really necessary and they may believe that the risk of vaccinating infants or temporary discomfort a vaccine may cause outweighs the benefits of protecting them from VPDs.

Our immunization system has risen to challenges in the past.

CDC is committed to keeping measles and other VPDs from regaining a foothold in our country.

Even very large outbreaks start with a single case. Working together, we can keep these numbers down, keep measles from returning and threatening the health of our communities, and sustain the enormous health and societal benefits that our immunization partnership has achieved.

Thank you.

[The prepared statement of Dr. Messonnier follows:]

| \*\*\*\*\*\*\*\*\*\*INSERT 2\*\*\*\*\*\*\*

29

599

Ms. DeGette. Thank you, Doctor.

600

Dr. Fauci, you are now recognized for five minutes.

This is a preliminary, unedited transcript. The statements within	n
may be inaccurate, incomplete, or misattributed to the speaker.	Α
link to the final, official transcript will be posted on the	
Committee's website as soon as it is available.	

TESTIMONY OF DR. FAUCI

Dr. Fauci. Thank you very much, Chairman DeGette, Ranking Member Guthrie, members of the committee. Thank you for giving me the opportunity to talk to you for a few minutes about the continued reemergence of vaccine-preventable disease, measles.

As shown on this slide and as mentioned by several of you already, measles virus is one of the most contagious viruses that we know among the pathogens that confront mankind -- as mentioned, that if an individual gets into a room with someone who has measles and that person is coughing and sneezing, there's about a 90 percent chance that that person -- -that is very unlike other diseases like influenza and other respiratory diseases when the hit rate, although it is high, is nothing approaching 90 percent.

Also, we know a lot about the virus. It has been very well sequenced. That is important, because we can tell when the virus is reintroduced into our country from where it comes, such as the Israel insertion into the -- into the Brooklyn among the Hasidic Jews. We knew that it had come from an individual from Israel.

Importantly is the potential for eradication because a similar virus among animals was eradicated. I consider it really

This is a preii	iminary, unedited	transcript. The	statements within
may be inaccura	ate, incomplete, o	or misattributed	to the speaker. A
link to the fin	nal, official tran	script will be p	osted on the
Committee's web	osite as soon as i	t is available.	

an irony that you have one of the most contagious viruses known to man juxtaposed against one of the most effective vaccines that we have and yet we don't do and have not done what could be done, namely, completely eliminate and eradicate this virus.

You heard some of the -- oops, I better go back one. Oops, it is just -- it has got a life of its own. Go back a few. There you go.

As was mentioned, prior to the vaccine era there were about 3 million deaths each year. The decrease was dramatic. There were 21 million lives that were saved from vaccines between the year 2000 and 2017.

But, as shown on the last bullet on this slide, there are 110,000 deaths still today in the world, which means there is the danger of the reinsertion of measles from other countries and if we are not protected.

Again, pre-vaccine measles in the United States 3 to 4 million measles case and, as was mentioned by several of you, 48,000 hospitalizations. Like Dr. Burgess, I remember very clearly the year that I got infected with measles. It was very uncomfortable and it was very scary because at that year I went back and looked at the statistics. There were 900,000 to a million cases in the United States that year.

But look what the vaccine done. This is a very dramatic slide. As shown, it dramatically decreased it to the point of the year 2000 when we essentially eliminated.

But let us take a look at some of the things that I mentioned about the disease itself. Fever, cough, rash, as was mentioned by Dr. Burgess -- again, contagious from four days before the rash to four days after. So people are spreading measles before they really know that they actually have measles.

We have a group of individuals who are particularly at risk for complications -- infants and children, pregnant women, immunocompromised, and even adults. If you are not protected and you get infected, adults have a high incidence of complications.

We have heard about the complications. They are not trivial. One out of ten with ear infections, which could lead to deafness; pneumonia in one out of 20 cases; encephalitis one in a thousand; a very rare occurrence called subacute sclerosing panencephalitis, which I will mention in a moment.

I don't want to scare the audience here but this is an x-ray of a child who was infected, developed pneumonia with bacterial complications. That x-ray, if it were normal, should look all dark where the lungs are. The light is what we call whiting out

This is a preliminary, unedited transcript. The statements within may be inaccurate, incomplete, or misattributed to the speaker. A link to the final, official transcript will be posted on the
Committee's website as soon as it is available.
33
of the lungs, which very often leads to death.
As I mentioned, subacute sclerosing panencephalitis is very
rare, but it should be mentioned seven to ten years after an
individual develops measles they can have a very devastating
neurological syndrome no known cure and is vaccine preventable.
This is what it looks like. The brain on the right side
has a lot of dark spaces where. That is where brain tissue should
be. That is what happens when the brain gets damaged.
And so this is the statistics that Dr. Messonnier and several
of you mentioned about what is going on right now. This slide
is really unacceptable. This is a totally vaccine-preventable
disease and when we see these kind of blips, this is not something
to be taken lightly.
So what we all should strive for that measles in the United

So what we all should strive for that measles in the United States we need to get to zero.

Thank you.

[The prepared statement of Dr. Fauci follows:]

686 \*\*\*\*\*\*\*\*\*\*\* INSERT 3\*\*\*\*\*\*\*

Ms. DeGette. Thank you, Dr. Fauci.

It is now time for members to have the opportunity to ask questions. I will recognize myself for five minutes.

Since we first announced we would be holding this hearing almost two weeks ago, more than 58 additional measles cases and an additional outbreak have been reported. Parents around the country are seeing headlines about these outbreaks.

As, Dr. Fauci, you mentioned, it is so rare now that it actually does make headlines. But there is also a lot of noise out there on measles and vaccines and I think sometimes because we eliminated measles for a while parents now are unclear about how best to protect their children and families.

Both of our witnesses are the two -- two of the top public health officials in the country. And so I would like to ask each one of you what is the most important piece of advice you would give to parents around the country on how they can best protect their children and families from measles.

Dr. Messonnier?

Dr. Messonnier. Taking care of your health, eating well, exercising, getting enough sleep -- those are all parts of a healthy lifestyle.

But the only way to protect against measles is to get

vaccinated. It is a safe and effective vaccine, and parents should go ahead and get vaccinated.

If they have questions, they should talk to their doctor. Their doctor can provide them more information about measles, answer their questions, and reassure them to then go ahead and get vaccinated.

Ms. DeGette. Dr. Fauci, do you have anything to add?

Dr. Fauci. Yes. I think it is important to point out,
obviously, ditto what everything that Dr. Messonnier said. But
we should look upon it in two approaches. One, it is for the
safety of your own child and the other is a responsibility to
the community, because in your opening statement, Congressman
DeGette, you mentioned this issue of herd immunity and we all
have a responsibility to be part of that umbrella of herd immunity.
And once it goes down below a certain percentage, then you have
danger to the entire society.

And something that is not fully appreciated is that we vaccinate children first time at 11 to 12 months and then the boost at four to six years. Those infants are vulnerable to measles if they get exposed.

So it is our responsibility to protect them and the only way you can protect those who are not old enough to yet get

vaccinated or the immunosuppressed is to be part of that herd immunity.

Ms. DeGette. Right. Now, Dr. Messonnier, you talked about the risks and benefits, and we have heard a lot from both of you about the benefits.

What are the risks of the -- and maybe, Dr. Fauci, you want to add into this, too -- what are the risks inherent in the vaccine itself? I think that might be one reason why some parents are choosing not to vaccinate their children as they believe that the risks with the vaccine outweigh the benefits.

Dr. Messonnier. I think you are exactly right and I think in the setting of not a lot of measles cases around parents weigh in their mind the risks and benefit and think they shouldn't vaccinate.

The truth is this is an incredibly safe vaccine. We have a host of experience with it. The vaccine has been used for a really long time.

We, in the United States, enjoy one of the most robust systems to monitor the safety of vaccines and that is why we can say with confidence that this is a safe vaccine. The most common side effects are a sore arm, which goes away pretty quickly.

Ms. DeGette. And where can parents go to get factual

information about vaccines?

Dr. Messonnier. Yes, thank you. That is a really important question. As a parent myself I understand that there is lots of information out there and it is really hard to sort through it all and make sure that you are getting the correct choices for your children.

CDC works really hard to make sure that we put out scientifically credible information. That is one of our core missions. But we also provide that information to health care providers.

Parents say that the person they trust most to help them make health care decisions is still their health care provider and that is also true of patients that are hesitant to vaccinate.

So parents should talk to their health care provider. They can help them sort through the sea of information out there to what is scientifically correct.

Ms. DeGette. Dr. Fauci, do you have a sense of what parents can do to get accurate information about the risks and benefits?

Dr. Fauci. Yes. I mean, I want to echo what Dr. Messonnier said. The CDC website is just really a cornucopia of important information. It is easily accessible. You go to cdc.gov. It says Search. Put measles in and all the things you really want

to know about it are right there with references.

Ms. DeGette. Great. Okay. Thank you very much, both of you, for being with us today and clearing up some of these myths.

I am now happy to recognize the ranking member, Mr. Guthrie, for purposes for asking questions for five minutes.

Mr. Guthrie. Thank you very much, and again, thanks for the witnesses for being here. And this is important and I think every parent, regardless of what decisions they made on -- want to make the best decision for their child. That is what people -- and so we want to make sure the best information, the accurate information, so they can make the best decision for the child.

This is particularly pertinent to me. One of my great friends growing up -- I was born in 1964. He was born just a few months before me in 1963 and his mom had rubella. He was born without a hand -- essentially, without a hand. And so I have always thought of measles and how devastating it can be.

As a matter of fact, you can see him play baseball. He could throw the ball, have his glove on his hand, put his hand in and just amazing how he adapted to it. But it was something.

So I remember later in life when I was a little older my mom telling how the -- because she was six or seven months pregnant with me when he -- when he was born and just the terror that went

through our community and with women that were pregnant with their children at that time.

So it has always been -- so I just want to ask some questions and try to get information out, moving forward, and for both of you to answer. In your opinion as physicians and leaders in federal public health agencies, should parents of unvaccinated children be more fearful of measles or the measles vaccine?

Dr. Fauci. To me, it is a no doubt. That is really a no-brainer. Clearly, if you look, and as I try to describe in my opening statement, the potential complications and even if you don't have complications, just the discomfort associated with the illness of measles far, far outweighs, as Dr. Messonnier said, of a very, very safe vaccine.

So, to me, there is no doubt. I am a parent. I have three daughters. They were all vaccinated and the thing that I worried about was them, if I did not vaccinate them, getting measles if it came into the community. That would scare me, not the vaccine.

Mr. Guthrie. Thank you.

Dr. Messonnier. One thing I will add is that in the current outbreak in Clark County, Washington State, we have seen a huge upsurge in acceptance of vaccine and use of vaccine in the community.

This is a preliminary, unedited transcript. The statements within
may be inaccurate, incomplete, or misattributed to the speaker. A
link to the final, official transcript will be posted on the
Committee's website as soon as it is available.

When faced with the real threat of measles, people parents
weigh that same equation and realize it is better to vaccinate.
What we need to do is get those messages to parents before the
measles outbreak hits.

Vaccine is incredibly safe. Measles remains a risk throughout the country. Yes, it is a no-brainer.

Mr. Guthrie. And your children are vaccinated?

Dr. Messonnier. Of course my children were vaccinated.

Mr. Guthrie. So for both of you, again, how many doses of MMR vaccine have been given in the U.S.? Millions or --

Dr. Messonnier. I mean, millions of doses of MMR vaccine are given every year.

Mr. Guthrie. And after more than 55 years -- some 55 -- so I came in -- when I was -- after more than 55 years of experience and hundreds of millions of doses, we estimate, what is the safety record of MMR vaccine?

Dr. Messonnier. You are right. Millions of doses in the U.S., not to count also the multimillion of doses given globally, all tell us for certain that the safety record is good. It is an incredibly safe vaccine. Parents should be reassured that we know this vaccine is safe because of all this experience.

Mr. Guthrie. Dr. Fauci?

This is a preliminary, unedited transcript. The statements within may be inaccurate, incomplete, or misattributed to the speaker. A link to the final, official transcript will be posted on the
Committee's website as soon as it is available.
Dr. Fauci. Also, I think it is important about how some
people can get confused because when you're in a certain area
of childhood so vaccines are recommended at around one year
11 to 12 months and then the boost at four to six years.
During that period of time of childhood a lot of things happen
to children. They get a lot of different diseases. Sometimes
bad things happen. And if you were to look at that you can make
an association and say, well, maybe that's due to the vaccine.
But a number of studies over many, many years have shown
the disassociation of that and, as Dr. Messonnier said, that when
you go back and look at the strict safety of the vaccine it is
extraordinarily safe.
Mr. Guthrie. I want to look at some of the concerns. I
have heard some parents claim that measles vaccine can cause brain
inflammation encephalitis. Is that true? Is that true?
Dr. Fauci. Brain inflation encephalitis?

Mr. Guthrie. Encephalitis. Can measles vaccine cause encephalitis -- the vaccine?

Dr. Fauci. The vaccine, no.

Mr. Guthrie. There is no cases --

[Disturbance in hearing room.]

## **NEAL R. GROSS** COURT REPORTERS AND TRANSCRIBERS 1323 RHODE ISLAND AVE., N.W. WASHINGTON, D.C. 20005-3701

863	Dr. Messonnier. There is no
864	Dr. Fauci. Rare.
865	Ms. DeGette. The chair will remind all persons in the
866	audience that manifestation of approval or disapproval of the
867	proceedings is in violation of the rules of the House and its
868	committees.
869	The gentleman may proceed.
870	Dr. Messonnier. In healthy children MMR vaccine does not
871	cause brain swelling or encephalitis.
872	Mr. Guthrie. So if a child wasn't healthy when they are
873	vaccined would
874	Dr. Messonnier. So there are rare instances of children
875	with certain very specific underlying problems with their immune
876	system and who the vaccine is contraindicated. One of the reasons
877	it is contraindicated is in that very specific group of children
878	there is a rare risk of brain swelling.
879	Mr. Guthrie. Would a parent know if their child was in that
880	category before they are
881	Dr. Messonnier. Certainly, and that is why a parent should
882	talk to their doctor.
883	Mr. Guthrie. Okay. And then one more, because I had a
884	couple of seconds with the questions. I just want to so another

This is a preliminary, unedited transcript. The statements within may be inaccurate, incomplete, or misattributed to the speaker. A

link to the final, official transcript will be posted on the

Committee's website as soon as it is available.

This is a preliminary, unedited transcript. The statements within may be inaccurate, incomplete, or misattributed to the speaker. A
link to the final, official transcript will be posted on the Committee's website as soon as it is available.
43
thing, that the people can self-medicate with Vitamin A to prevent
measles and not do the vaccine. Is that what is the validity
of that, in your opinion?
Dr. Fauci. Well, the history of Vitamin A and measles goes
back to some very important and, I think, transforming studies
that were done years ago in sub-Saharan Africa is that with Vitamin
A supplements and particularly in Vitamin A deficiency that
children who get measles have a much more difficult course.
So Vitamin A associated with measles can actually protect
you against some of the toxic and adverse effects. Importantly,
since in a country a developed nation where you really don't
have any issue with Vitamin A deficiency, that you don't really
see that transforming effect.
But some really good studies that were done years ago show
that Vitamin A supplementation can be very helpful in preventing
the complications of mostles

the complications of measles.

Mr. Guthrie. It doesn't prevent onset of measles, if you are not immunized?

No. Dr. Fauci. No.

Is that your -- is that what you are saying? I don't want to put words in your mouth.

It doesn't prevent -- it doesn't prevent Dr. Fauci.

885

886

887

888

889

890

891

892

893

894

895

896

897

898

899

900

901

902

903

904

905

This is a preliminary, unedited transcript. The statements within may be inaccurate, incomplete, or misattributed to the speaker. A link to the final, official transcript will be posted on the Committee's website as soon as it is available.
44
measles. But it is important in preventing some of the
complications in societies in which Vitamin A deficiency might
exist.
Mr. Guthrie. Thank you. I appreciate your indulgence.
Ms. DeGette. The gentleman yields back.
The chair now recognizes the gentlelady from Illinois, Ms.
Schakowsky, for five minutes.
Ms. Schakowsky. Dr. Messonnier and Dr. Fauci, if we could
just once maybe once again put on the record, yes or no. Is
the highly contagious measles virus life-threatening deadly?
Yes or no.
Dr. Messonnier. Yes.
Dr. Fauci. The answer is yes. It rarely occurs. I mean,
most children myself, Mike Burgess
Ms. Schakowsky. Myself.
Dr. Fauci who developed measles yourself and many
people on the committee who got measles would recover completely.
But you ask yourself is there a potential to be deadly.
History tells us unequivocally that's the case, because when
you were talking about the measles vaccine before we vaccinated
here in the United States in the early to mid-'60s, there were

400 to 500 deaths directly due to measles.

Prior to the measles vaccine globally there were over a million-1 to 2 million -- deaths in a year. So as Dr. Messonnier said in direct answer to your question, is it potentially deadly? Absolutely.

Ms. Schakowsky. That is very important. Thank you.

And that deeply should concern all of us and over the past two weeks a new outbreak has sprouted in my home state of Illinois with four confirmed cases in Champaign County, the home of the University of Illinois. It happens to be my alma mater.

And I am trying to understand what has happened between 2000 and 2019 and why we have fallen so far from the public health success stories when the CDC actually said that there -- we had eradicated in the United States measles in 2000.

So, Dr. Messonnier, yes or no. Do you believe the primary cause of the spike in measles outbreak over the past few years is due to vaccine hesitancy and misinformation?

Dr. Messonnier. Yes and no. I think vaccine hesitancy is a word that means many different things. Parents have questions about vaccines. They get those questions answered. That is what you should call hesitancy.

So I do believe that parents' concerns about vaccine leads to under vaccination and most of the cases that we are seeing

are in unvaccinated communities.

However, if you look nationally at measles vaccination coverage, there are other things that are associated with low coverage. For example, living in a rural area versus an urban area. Rural areas have lower vaccine coverage with measles.

Ms. Schakowsky. How would you account for that?

Dr. Messonnier. Well, I think that there are other things besides the choice that are around access to care. For example, kids without health insurance have lower measles vaccination coverage.

Ms. Schakowsky. So, generally, lack of access to care?

Dr. Messonnier. In addition to parents making decisions not to vaccinate their kids, yes.

Ms. Schakowsky. More than 50 percent of the current outbreak cases this year occurred in Clark County, Washington. In that region, only 81 percent of one- to five-year-old children and only 78 percent of six- to 18-year-olds received the age-appropriate measles, mumps, and rubella vaccine dosage. So it is really deeply troubling that it seems to cluster in certain -- in certain places.

Dr. Messonnier and Dr. Fauci, what do you believe would happen -- let us say if only 78 percent of the entire U.S.

This is a preliminary, unedited transcript. The statements within
may be inaccurate, incomplete, or misattributed to the speaker. A
link to the final, official transcript will be posted on the
Committee's website as soon as it is available.

population was vaccinated against the -- against measles or, worse yet, what would happen if we stopped all measles vaccinations?

Dr. Fauci. Well, measles, as I mentioned in my presentation, exists. There were 110,000 deaths in 2017. So measles is out there.

Even though we, as a country, now have a high degree of vaccination, if we did what you are suggesting and essentially dropped it down to 70 percent, 50 percent, or even stopped, we would have an entirely susceptible population. We would be like countries prior to the vaccine era and that would be a catastrophe waiting to happen.

So even if you go down to a certain level, if you look not only at the United States -- we showed the figures of the United States -- but right now there is a terrible outbreak going on in Madagascar. There have been 900 deaths so far in Madagascar.

We are seeing that in other countries in which when you go below a certain level and that umbrella of herd immunity lifts, it truly is a catastrophe waiting to happen. So that is something that would be very scary to think about.

Ms. Schakowsky. Let me just say as an organizer, I think part of it is a communications issue, an organizing issue, and

This is a preliminary, unedited transcript. The statements within
may be inaccurate, incomplete, or misattributed to the speaker. A
link to the final, official transcript will be posted on the
Committee's website as soon as it is available.

we need to mobilize the public on this question. It is not just up to the two of you. We want to work with you but I think we need to get some organizers going.

Thank you. I yield back.

Ms. DeGette. The chair now recognizes the gentleman from Texas, Dr. Burgess, for five minutes.

Mr. Burgess. Thank you for the recognition.

I learned something this morning. I always learn something on this committee. Mr. Guthrie asked a question about Vitamin A and, Dr. Fauci, thank you for your answer.

I did not know that in Vitamin A deficient individuals perhaps there was going to be a harder course for the disease.

I do feel obligated to mention that Vitamin A is not like Vitamin C. You may not take unlimited quantities of Vitamin A with impunity. It is a fat-soluble vitamin and it is stored in the body. So don't go out and hyperdose on Vitamin A because it will not accrue to your long-term benefit.

So vaccines themselves are at the very heart of medical innovation and some my parallel the history of this country. Dr. Edward Jenner began his career and introduced the first vaccination in 1796, 20 years after our Declaration of Independence. So a long history of an association with

vaccination.

So the two of you work together on these issues. So can you perhaps tell us a little bit how you work together to prevent the reappearance of vaccine-preventable diseases, focused on measles this morning?

Rubella -- something I remember from my residency at Parkland Hospital. A congenital rubella syndrome in a child was devastating. These are illnesses that new generations of doctors don't see because of the effectiveness of the vaccine.

Can you speak just briefly of how you -- how your agencies interact and work together?

Dr. Fauci. Well, as you know, Dr. Burgess, that the CDC and the NIH are within the Department of Health and Human Services. So we consider each other sister agencies, as it were, and the CDC has the major responsibility, as Dr. Messonnier will tell you, about the public health -- the surveillance and the messages.

We, as a research institution, try to fill in any of the gaps that occur from a research standpoint. What we are talking about today is really less of a research problem than it is an implementation problem.

So how we help and work with our colleagues at the CDC is to continue to provide the evidence-based -- the science-based

This is	a p	relimina:	ry, uned	lited t	rans	cript.	The	sta	teme	nts	withi	ln
may be	inac	curate,	incomple	ete, or	mis	attribu	uted	to	the	spea	ker.	Α
link to	the	final,	official	. trans	crip	t will	be r	ost	ed o	n th	е	
Committ	ee's	website	as soor	as it	is	availal	ole.					

evidence of why we need to implement a highly successful program that is, as we know, the vaccine program that we are talking about.

Dr. Messonnier. No, I think this is an area where CDC does have the leadership role within HHS and our program is vast and diverse including all the operational pieces that it takes to deliver vaccines and, importantly, all the local partnerships that it takes to make the -- to make the case for why vaccines are important.

Communication is a hugely important part. Monitoring the effectiveness and safety of vaccines so that we can continue to assure the public that we know that the vaccines are working like we think they are.

Mr. Burgess. And, Madam Chairman, I will just say that both of these -- both NIH and CDC -- where members of Congress come visit it. I know it is a pain in the neck but you are always very good to receive us.

Dr. Fauci, I try to come to the NIH once each congressional term and, Dr. Messonnier, I was at CDC -- it is harder to get to Atlanta for me, but the -- you have been very good about when I have come to make available information and personnel and it is very, very helpful in sort of setting the background for what you just described.

Let me ask a question of either of you or both of you. The 1999 -- the Public Health Service recommended removing thimerosal -- the mercury -- containing compound. My understanding that childhood vaccinations now no longer contain thimerosal except for a select few -- perhaps the multi-dose flu vaccine.

Did the measles -- mumps -- rubella vaccine ever contain mercury or thimerosal? I need a verbal answer for the clerk.

Dr. Fauci. No, it is preservative free.

Dr. Messonnier. No, and you didn't ask this but I just would also point out this is an area where we work with FDA very closely since vaccine safety is their mandate.

Mr. Burgess. Was there ever any evidence to suggest that mercury or thimerosal was unsafe? I guess that is a better question for the FDA but you all are experts -- subject matter experts.

Dr. Fauci. There is no evidence that it is unsafe.

Dr. Messonnier. The thimerosal was removed from vaccines out of an abundance of caution at a time when there wasn't enough evidence. But evidence since then has been very conclusive.

Mr. Burgess. Well, I thank you for that. I have some additional questions. I will submit those for the record.

I yield back.

1061

1062

1063

1064

1065

1066

1067

1068

1069

1070

1071

1072

1073

1074

1075

1076

1077

1078

1079

1080

1081

Ms. DeGette. Thank you very much.

The chair now recognizes the chairman of the full committee, Mr. Pallone, for five minutes for questioning.

The Chairman. Thank you, Madam Chair.

The elimination of measles in the United States in 2000 was a testament to science research and the public health system we have in place in this country. So it is disturbing to see the numbers on the current measles outbreaks and just how common these outbreaks are once again becoming in the United States.

You know, I mean, I guess the CDC made the announcement based on the number of cases that had been eradicated. But even I myself, when I was doing my opening statement this morning, you know, my staff said oh, it is, you know, over in New Jersey and then we have a new outbreak.

So, you know, I think there is reason to be concerned. So let me just say, Dr. Messonnier, is -- what is the reason or the reason why we should be concerned that measles cases and outbreaks are increasing or may increase in the coming years, I mean, and do you agree that we should be concerned?

Dr. Messonnier. Yes, we should certainly be concerned.

So measles was identified as eliminated in the United States in

2000 because there was no longer sustained transmission in the

1105 || U.S.

However, measles continues to circulate globally, which means unvaccinated U.S. travelers can be exposed to measles and bring it back home with them and folks in their families and their communities, if they are not protected by vaccine are at risk. Measles is so incredibly contagious that it can spread really quickly. So yes, we should be concerned.

The Chairman. All right.

Now, given your answers, I am glad we are focusing on it today. But this threat, in my opinion, is amplified, unfortunately, by the spread of disinformation. There has been a significant -- there has been significant reporting in the past few weeks regarding the use of digital media platforms to spread misinformation and fear about vaccinations.

So let me go to Dr. Fauci. What role do you see the spread of disinformation online playing in the rise of these outbreaks?

Dr. Fauci. I believe, Mr. Pallone, that it -- that it plays an important role. It is not the only one but I believe it plays an important role and I think the classic example of that was the disinformation associated with the relationship between measles vaccination and autism, which back when it came out years ago there was a big concern that this was the case.

When it was investigated it became clear that the data upon which those statements were made were false and fraudulent and the person who made them had his medical license revoked in England.

And yet, as you know very well, the good news about the internet is that it spreads important that is good and the bad news about the internet is that when the bad information gets on there it is tough to get it off.

And yet people refer to things that have been proven to be false. So disinformation is really an important issue that we need to try and overcome by continuing to point people to what is evidence based and what is science based.

So in so many respects, we don't -- we shouldn't be criticizing people who get these information that is false because they may not know it is false. We need to try and continue to educate them to show them what the true evidence base is.

But in direct answer to your question, that is an important problem -- disinformation.

The Chairman. Now, do you think that the promotion of this inaccurate and fear-based messages -- would you consider that in itself a threat to public health?

Dr. Fauci. Yes, of course. I think the spread of false

This	is	a pr	relimina	ry,	unedi	Lted	tr	ans	cript.	. The	sta	teme	ents	with:	in
may b	e i	naco	curate,	inco	mplet	ce,	or :	mis	attrik	outed	to	the	spea	aker.	Α
link	to	the	final,	offi	cial	tra	nsc	rip	t will	l be g	post	ed o	on th	ne	
Commi	tte	e's	website	as	soon	as	it	is	availa	able.					

information that leads people into poor choices, even though they are well meaning in their choice, it is a poor choice, based on information. I think that is a major contribution to the problem that we are discussing.

The Chairman. I mean, part of the problem is, you know, is this 30 seconds. In other words, you know, people will listen to the news or watch the internet and they will hear, as you say, that somehow vaccinations lead to autism and they will hear that and then, you know, they won't hear what comes later that says that that is false because that is more complicated, you know. I mean, it is just the nature of it.

Look, the main thing I wanted to say because we are -- you know, I only have five minutes, is that you keep stressing the science and that we have to follow the science and protect the public health based on what the science tells us and I think that is so crucial here and that is the one thing that, you know, we have and that, you know, CDC and National Institutes of Health are providing for us is the science-based information and we have to rely on it and get that out.

So thank you so much. Thank you both. Thank you, Madam Chair.

Ms. DeGette. The gentleman yields back.

The chair will once again remind the persons in the audience that manifestation of approval or disapproval of proceedings is in violation of the rules of the House and the committees and if these violations continue then we will notify the sergeant at arms who will have you removed.

So I would appreciate cooperation of everyone so we can hear the witnesses and so we can hear the members' questioning.

And with that, I will now recognize the gentlelady from Indiana, Mrs. Brooks, for five minutes for her questioning.

Mrs. Brooks. Thank you, Madam Chairwoman.

Dr. Fauci, I would like to focus -- and actually both of you, Dr. Messonnier and Dr. Fauci -- I would like to talk a little bit about U.S. biodefense.

And Congresswoman Eshoo and I led the Pandemic All-Hazard Preparedness Act bill, which we have gotten passed through the House once again, and I think what a lot of people in the country don't fully appreciate is the importance of a biodefense and defending our country, whether it is for national security reasons or with respect to public health threats.

Is under vaccination to U.S. biodefense and how does -- how do vaccinations play into the protection of our country and what does biodefense mean?

1193 Dr. Fauci?

1194

1195

1196

1197

1198

1199

1200

1201

1202

1203

1204

1205

1206

1207

1208

1209

1210

1211

1212

1213

1214

Dr. Fauci. Yes. Thank you for that question. That is a very good question because we have been involved in biodefense for quite a while. The effort really galvanized at 9/11 when we had the anthrax attack and we put a consideration amount of resources into developing countermeasures in the parts of vaccines, therapeutics, diagnostics, against what were classically agents that were used in bioterror.

When we analyzed our approach back in 2001, 2002, and 2003 it became clear that it really is all a part of emerging and reemerging infections -- those that naturally emerge as new infections, like we saw with AIDS and SARS. Those that --

Mrs. Brooks. Zika?

Dr. Fauci. Yes, Zika.

Mrs. Brooks. Ebola?

Dr. Fauci. But those that -- those are reemerging so there are brand new infections. There are reemerging infections and we would consider as part of the big problem and the link that I think you are referring to, and I totally agree with you, that if you have a vaccine-preventable disease but you still let that disease go unchecked because of lack of vaccination, that is all part of the problem of not adequately addressing reemerging

infectious disease.

Measles in an old disease. Right now what we are seeing on the charts that we showed is the reemergence of a vaccine-preventable disease, which to me falls under that broad category that you are referring to.

Mrs. Brooks. And I -- and I appreciate you giving us the numbers. We were at 159 as of February 21st. The numbers might be slightly higher. But that -- those numbers are dramatic for only two months of the new year.

How is it -- and both of you have talked about the importance of eradicating it entirely with a concerted global public health effort because you have got 900 people who have died in Madagascar, and I know while people here in this country may not think that people in Madagascar can infect our country, why do we believe it is possible to eradicate a disease like measles? Why do we think it is even possible?

Dr. Messonnier? Dr. Fauci?

Dr. Fauci. So I have been saying that it is a -- the vaccine is extraordinarily effective. We have eliminated -- the agricultural industry has eliminated a closely related virus among animals called rinderpest. So it is, essentially, the same virus only the animal version of it.

So when you have a highly effective, and I want to underscore that because measles is one of the most effective vaccines that we have of any vaccine, that a massive public health effort could lead to eradication because we don't have an animal vector.

We don't have an intermediate host. We don't have a vector that transmits it. It is just person-to-person transmissibility.

So, theoretically, we could eradicate it. The problem between eradication and elimination, if you eliminate it like we did in this country in 2000, as long as there is measles somewhere you always have the threat of it reemerging if you let down the umbrella of her immunity.

Mrs. Brooks. And so, Dr. Messonnier, helping other countries with vaccine implementation would be helpful to our country. Is that correct?

Dr. Messonnier. That is right. I mean, control of measles around the world is a priority for CDC and there are a whole variety of efforts towards that.

I do think it is important, though, Dr. Fauci is correct about Madagascar. But I think Americans don't realize that in 2018 there were also outbreaks in England, France, Italy, and Greece. American travelers going abroad need to think about

This i	is a	prelimina	ry, uned	ited tr	canscript.	The st	atements	within
may be	e ina	accurate,	incomple	te, or	misattribu	ited to	the spe	aker. A
link t	to th	ne final,	${\tt official}$	transo	ript will	be pos	sted on t	he
Commit	ttee'	s website	as soon	as it	is availab	ole.		

their immunization status, not just when they are going to countries like Madagascar but even going to Europe.

Mrs. Brooks. Thank you. I yield back my time.

Ms. DeGette. The chair now recognizes the gentleman from California, Dr. Ruiz, for five minutes.

Mr. Ruiz. Thank you very much for being here again. My questions are going to be in line of two separate topics, which are interrelated as well.

One is the disparities that we see in the vaccination rates and two is the coordination between your agencies and the state, federal, nonprofit in dealing with communications and the outreach.

So, Dr. Messonnier, you said that one of the biggest challenges is access to these vaccines and so we see disparities in low income, uninsured, under insured populations in getting the vaccine.

The Affordable Care Act made it a mandatory coverage for private health insurance through the essential health benefits to provide these vaccines.

If we eliminate or repeal these essential health benefits and allow insurance companies to not cover these vaccines, would that -- would that worse the problem of access to these vaccines?

6	1
U	_

Dr. Messonnier. So thanks for the opportunity to talk about this. In fact, the vaccines for Children's Program provides a safety net. Vaccines --

Mr. Ruiz. So if the private -- if the private health insurance were no longer required to provide vaccines, would that decrease perhaps the vaccination rate?

Dr. Messonnier. So right now the issue is not in private insurance. All insurance companies provide vaccines free of charge.

Mr. Ruiz. Of course. So the Affordable Care Act right now makes it mandatory to provide. It is part of the essential health benefit. So if they repeal that essential health benefit and they are no longer required to provide it, they can choose not to provide, which then makes it difficult to get access to the care.

Medicaid is also a good program that gives low-income children and other families the ability to get the vaccination, along with the programs that you administer as well.

So if we repeal those, then we are going to make the problem worse by not having those vaccinations available. Can you speak, broadly, to the coordination role that CDC plays and how that is important for responding to outbreaks?

Dr. Messonnier. Sure. The backbone of our response to outbreaks is the state, local, federal, community interaction around immunizations. I think Clark County is a perfect example.

The health departments, certainly, at the local level was the first to respond. These outbreaks can be quickly overwhelming because every case has potentially hundreds and thousands of contacts that need to be tracked down.

The county quickly got overwhelmed. They came to the state asking for support and then the state came to CDC. CDC already has folks embedded in the health department and we work closely with them every day. But they asked for more support and we had boots on the ground right away.

Mr. Ruiz. Would -- Dr. Fauci, when it comes to the measles cases or other vaccine-preventable diseases, are there particular challenges to mobilizing and promoting a cohesive preparedness message or communications plan within communities at a national level?

Dr. Fauci. At a national level, the communication I think from the CDC is quite good. I mean, if you look at the messages that come out from the CDC -- and I could let Nancy speak about this better than I -- but the beauty about what the CDC does is that they work very, very closely with the state and local health

This is a preliminary, unedited transcript. The statements within may be inaccurate, incomplete, or misattributed to the speaker. A link to the final, official transcript will be posted on the Committee's website as soon as it is available. 63 authorities. I mean, that is a very, very important partnership. So you have the federal level with a very important message

that gets disseminated through the state and local health authorities.

And what is the coordination with the Indian Mr. Ruiz. Health Service in reaching out to rural and reservations?

Dr. Messonnier. Yes. It is a close partnership and has been for a long time. The immunization community -- again, state, local, federal community -- is very closely aligned and works really closely together.

We understand that a lot of these issues are local. So while CDC provides scientifically credible information, it is often most effective for folks in the community to be the ones conveying that information.

Mr. Ruiz. Are you talking more about the programs that you offer to low-income and uninsured, under insured and how do you get to those communities that are very under insured?

Dr. Messonnier. I mean, the vaccine for Children's Program has provided that safety net for a number of years and it is one of the reasons we have enjoyed such good control of measles and other vaccine-preventable diseases.

This data that suggests that there are some communities that

1325

1326

1327

1328

1329

1330

1331

1332

1333

1334

1335

1336

1337

1338

1339

1340

1341

1342

1343

1344

1345

are not taking advantage of that program is concerning and we are working closely with our local and state partners to understand the drivers.

I am not sure the issues are the same everywhere. We really need to understand what the local issues are and then figure out how to solve them.

Mr. Ruiz. I agree. I think that local communication plans is very important and herd immunity is also very important as well.

Thank you. I yield back my time.

Ms. DeGette. The chair now recognizes the gentleman from South Carolina, Mr. Duncan, for five minutes.

Mr. Duncan. Thank you, Madam Chair.

When I travel I carry a yellow card with me in addition to my passport to have a record of all the shots that I have taken -- immunizations -- and as a father of three sons, when my sons entered kindergarten and grade school we had to provide an immunization record for them and I would argue that they probably would not have been able to attend public schools in South Carolina without certain immunizations and vaccinations.

We had a hearing last week about unaccompanied children and child separation at the border, et cetera, and one point I made

This is a pro	eliminary, u	nedited transc	cript. The sta	tements within
may be inaccu	urate, incom	plete, or misa	attributed to	the speaker. A
link to the	final, offic	ial transcript	t will be post	ed on the
Committee's v	website as s	oon as it is a	available.	

then is that, you know, we don't know the vaccination history of a lot of the children that show up at our border and we have a porous southern border and there are children and other individuals that come into this country that we don't know about -- that aren't apprehended, they don't go through a normal port of entry -- and what we are seeing is a rise of certain diseases -- not necessarily measles but diseases in this country that we had beaten back over the years.

And so I think it is alarming from a subject of vaccination and immunization when we see those diseases rising, and one of the world's measles outbreaks right now is happening Brazil where people fleeing a completely broken country of Venezuela are spreading measles.

And Madam Chair, I would like to submit for the record an NPR article, "The Collapse of Health System Sends Venezuelans Fleeing to Brazil for Basic Medical Needs," and I will submit that for the record.

They have been in a unvaccinated population because of the collapse of the failed socialist state in Venezuela where there should be an instructive example for some of us in this committee room of the lack of that sort of medical treatment of vaccinations.

I would note that the humanitarian aid that countries like

This	is	a pr	relimina	ry,	uned	ited	l tr	ans	cript.	The	sta	teme	ents	with:	in
may 1	be i	naco	curate,	inco	mplet	te,	or	mis	attrib	uted	to	the	spea	aker.	Α
link	to	the	final,	offi	cial	tra	nsc	rip	t will	be r	post	ed o	on th	ne .	
Comm:	itte	e's	website	as	soon	as	it	is	availa	ble.					

the U.S. are trying to send to Venezuela is being burned on bridges by the Maduro regime instead of actually being used to help his own people.

This includes vaccinations like the ones we are discussing today. There were measles vaccinations that were burned on the bridges as part of the relief effort to Venezuela.

So now the CDC tells us that the first dose of MMR vaccine provides 93 percent of coverage against measles. The second dose increases that number to 97 percent.

We also know from reports here in the U.S. and around the globe that some kids have faced adverse reactions to this powerful and life-giving immunization.

Therefore, my question for each of you on the panel is this. Considering the prodigious advances in technology and medical research that our nation has discovered since around the 1960s when the MMR vaccine was first introduced, how can we now further increase the efficiency of the MMR vaccine to fight measles while at the same time work to limit the adverse reactions that some children have had after receiving the MMR shot?

And I ask both of you that.

Dr. Messonnier. This is a great example of a vaccine that is so good, so effective, and so safe that we haven't tinkered

with it. I think that while there are many challenges in immunizations, the effectiveness and safety of measles vaccine isn't one of them.

The measles vaccine has mostly stayed the same because of the high effectiveness and the long track record of safety.

Mr. Duncan. Dr. Fauci?

Dr. Fauci. There was -- I totally agree with Dr. Messonnier.

You know, as a person who has been involved with developing vaccines for a long time you really don't get much better than 97 percent. That is really good.

So the thing that you, I believe, were alluding to when the Edmonston strain came out in 1963 it was highly effective and not serious -- any serious adverse events. But there was a percentage of fevers that were associated with an occasional rash. That was improved in 1965 to develop another strain.

And then since 1968 what was -- a strain that is now being used in Attenuvax it is called is one, as Dr. Messonnier has said, that not only maintains the 97 percent effectiveness but it is very, very free of serious toxicities.

Mr. Duncan. And I agree. I mean, I think these strains are adaptive. We see that in the flu virus where we can only anticipate what the virus is going to look like this year.

This is a preliminary, unedited transcript. The statements within	n
may be inaccurate, incomplete, or misattributed to the speaker.	Α
link to the final, official transcript will be posted on the	
Committee's website as soon as it is available.	

Sometimes it adapts or sometimes it changes and the vaccine for the flu isn't quite the right flu vaccine for the year and we see an increase.

So I want to continue to raise awareness that we need to make sure as asylum seekers come to this country whether they are coming along our southern border or whether folks are immigrating to the nation from other places that we make sure that those countries have the right immunization schedules and vaccinations for the children and the adults because, ultimately, when they come to this country and live amongst us they may not have the same vaccinations and immunizations that we experience in this country and we may see measles today and maybe something else in the future.

And with that, I yield back.

Ms. DeGette. The gentleman yields back.

The gentleman from Texas has a unanimous consent request.

Mr. Burgess. Thank you, Madam Chair. I have a unanimous consent request to place into the record a letter from Dr. Peter Hotez from Children's Hospital in Houston.

Ms. DeGette. Without objection, that letter shall be placed into the record, and also without objection the NPR article that the gentleman from South Carolina requested be put in the record

69

will be placed in the record.

1458

[The information follows:]

This is a preliminary, unedited transcript. The statements within
may be inaccurate, incomplete, or misattributed to the speaker. A
link to the final, official transcript will be posted on the
Committee's website as soon as it is available.

The chair now recognizes the gentlelady from Florida, Ms. Castor, for five minutes.

Ms. Castor. Thank you, Madam Chair. Thank you very much for being here today.

I want to get a little more specific on Dr. Ruiz's questions on disparities. You said, Dr. Messonnier, that disparities exist when it comes to the MMR vaccine. What do those disparities look like and how do they break down by demographics?

Dr. Messonnier. Thank you.

So, you know, there is always the national picture and then the local picture. Nationally, I can tell you that there are certain groups that have lower risks of MMR vaccination, although overall everybody and generally nationally has high rates. But there are low rates of MMR in those of lower socioeconomic status, those without insurance, and those who live in rural areas as opposed to urban areas.

The specific drivers, though, locally may be different and that is why we really have to work closely at the state and local level to understand at a community level what that is. Is that access, is it misinformation, and how can we resolve the issues?

Ms. Castor. How about by location?

Dr. Messonnier. Oh. So there are states in the U.S. that

This i	is a	prelimina	ry, uned	ited tr	canscript.	The st	atements	within
may be	e ina	accurate,	incomple	te, or	misattribu	ited to	the spe	aker. A
link t	to th	ne final,	${\tt official}$	transo	ript will	be pos	sted on t	he
Commit	ttee'	s website	as soon	as it	is availab	ole.		

have higher vaccination coverage than others. But I would also say that if you talk to any state health department what you find is that even within the state there are differences at a community, local, county, school level.

I think one real advancement in using the data that is available is that some states have actually put that data online and so you can go to a website and look, for example, at a state and see at a county level and at a school level what immunization coverage is. It is really powerful information for parents to understand what is going on in their communities.

Ms. Castor. What is the biggest source of the reemergence by demographic?

Dr. Messonnier. So I think it is an interesting question.

The groups that I was talking about with lower vaccination

coverage are a concern because it is a failure of our safety net.

But most of the disease and certainly the large outbreaks we are seeing in this country are actually not associated with those. It is associated with groups of people like close-knit communities that are under vaccinated and clustering together.

Ms. Castor. Because I -- and that was my impression and I was a little confused by the last line of questioning that the alarm should be over immigration and asylum seekers.

Do you have a comment on that? Dr. Fauci?

Dr. Fauci. Well, I think what Dr. Messonnier said is absolutely correct. If you look at the known outbreak, so if you take the outbreak in the Williamsburg section of Brooklyn in New York City and in Rockland County it was a relatively closed group who had a rate of vaccination that was below the level of a good herd immunity.

A person from Israel, understandably, came over legally as a visitor into the community and then you had a massive outbreak in New York. The Somali community in Minnesota, the same thing happened.

You had a group there who had a lower rate that went below the cutoff point for herd immunity. Some immigrant came in as one of the members of the community. It was a relatively closed community and that is what you have.

So I think when you talk about outbreaks, it really transcends some of the demographic issues that you were talking about about lower income or rural versus urban. It really is in a closed community that we are seeing it.

Ms. Castor. With lower vaccination rates. So that is -Dr. Fauci. Right. Exactly. It is all lower vaccination rates.

1504

1505

1506

1507

1508

1509

1510

1511

1512

1513

1514

1515

1516

1517

1518

1519

1520

1521

1522

1523

1524

1526 Ms. Castor. So it is pretty remarkable. We really are 1527 fortunate that we have such a safe and effective measles vaccine. 1528 I mean, these statistics are fairly remarkable. Pre-vaccine, 1529 2.6 million deaths each year. 1530 After the vaccine was introduced in 1963 a dramatic decrease. 1531 Dr. Fauci, you say from 2000 to 2017 over 21 million deaths have 1532 been prevented, and it used to be that most children were --1533 acquired measles by age 15 but thanks to all of the great work 1534 by scientists and public health agencies like you all, as a result, we were able to practically eliminate this. 1535 1536 But despite this breakthrough, the millions of lives it has 1537 saved, there is still so much misinformation about the vaccine. 1538 Today, you all, leading health experts, help us clarify some 1539 of this. 1540 Dr. Fauci, looking at the science, what do we know about 1541 the -- again, I don't think we can say this often enough because 1542 of the misinformation -- how safe and effective is the measles 1543 vaccine -- the MMR vaccine -- and how would you compare it to 1544 other vaccines? 1545 Well, let us talk about efficacy first. Dr. Fauci. It is, 1546 clearly, one of if not the most effective vaccine that we have. 1547 As Dr. Messonnier said, you really can't get much better than 1548 that.

That is the reason why we don't want to tinker with its

1550 Ninety-seven percent is really, really good. 1551 both of us have said many times, it is a very safe vaccine --1552 over millions and millions and millions of doses that have been 1553 It is a very, very safe vaccine. 1554 Ms. Castor. Thank you very much. I yield back. 1555 The chair now recognizes the gentleman from Ms. DeGette. 1556 New York, Mr. Tonko. I was trying to figure out the order. 1557 Mr. Tonko, for five minutes. 1558 Mr. Tonko. Thank you, Chairman DeGette -- Chairwoman 1559 DeGette. 1560 Promoting healthy families in communities is possible thanks 1561 to the dissemination of science-informed health information directly to patients and health providers play a critical role 1562 1563 as the most trusted source of health information for people and, 1564 certainly, parents. 1565 However, ensuring that patients receive accurate 1566 information has grown complicated in the digital age. In fact, 1567 according to the Pew Research Center, seven in ten adults in the 1568 United States look online for health information, and even when 1569 they are not searching for information online, content finds them. I know you spoke a bit about this with Chairman Pallone. 1570 1571 I went to delve a little more deeply. Recently, the Guardian

users on a range of digital media platforms proliferating

reported that anti-vaccination content is being recommended to

1572

1574 misleading information, testimonies, and advertisements on 1575 mediums used to explore news-related topics. 1576 So, Dr. Messonnier, what do the data and examples of recent 1577 measles outbreaks tell us concerning the impact of disinformation 1578 on public health and in these communities? 1579 Dr. Messonnier. I am certainly really concerned Yes. 1580 about the misinformation. But I also understand how complicated 1581 it is for parents that are inundated with information and aren't 1582 sure what information to trust. 1583 All our research continues to show that among all groups 1584 of parents of all ages of children they still trust their own 1585 health care provider most. So most parents are hearing this 1586 information and then going to their health care provider to help 1587 them sort it through and most parents in the U.S. are still going 1588 on to get their kids vaccinated. 1589 Mr. Tonko. Thank you. 1590 And Dr. Fauci, what quidance do you have to assist patients 1591 in discerning fake information from science-based information? What we try and do is to steer them towards the 1592 Dr. Fauci. 1593 well-established scientific literature as opposed to claims that 1594 are just made in a almost haphazard way. 1595 I mean, that is one of the problems, that if a person makes 1596 a claim it gets onto the internet and, understandably, people 1597 -- parents, in particular -- have a difficulty discerning what

is false equivalency. Like someone says this and then the other one says that and they say, I don't know who to believe.

But if you delve deep into it and you look at some of the published work from organizations like the CDC and other organizations you will see that that is based on very strict science and that is what we hope we can get them to understand.

Mr. Tonko. Thank you, Doctor.

In response to the spotlight on the monetization of misinformation about vaccines, are there ways in which platforms are being manipulated to promote anti-vaccination messaging?

Some companies have announced new policies. For instance,

Facebook says it is working on its algorithms to prevent anti-vaccination content from being recommended to users.

Pinterest has decided to remove all vaccination-related posts and searches, even accurate information, and YouTube just recently announced that it would prevent channels that promote anti-vaccination content from running advertising.

Dr. Fauci, do you think these actions are a step in the right direction to ensure parents and families have access to science-based factual health information?

Dr. Fauci. Obviously, it is a very sensitive subject because it then gets in that borderline between the -- you know, essentially, crushing of information that might actually be useful information.

1622 However, having said that, I do think that a close look and 1623 scrutiny at something that is egregiously incorrect has some 1624 merits of taking a careful look as to whether one -- you want 1625 to be participating in the dissemination of that. 1626 Always being careful about not wanting to essentially 1627 curtail freedom of expression, you still want to make sure you 1628 don't do something that is so clearly hazardous to the health 1629 of individuals. 1630 Mr. Tonko. I appreciate that. 1631 And, Dr. Messonnier, as the agency charged with protecting 1632 our national public health, what efforts are underway at CDC to counter the online proliferation of anti-vaccination 1633 1634 disinformation? Dr. Messonnier. As a science-based agency, CDC really 1635 1636 focuses on making sure that we get scientifically-credible information available to the folks at the front lines that need 1637 1638 it every day. 1639 In order to do that, we do scan social media to see what 1640 issues are arising and what questions are emerging to make sure 1641 that we can then gather the scientifically-appropriate answers 1642 and get that to our partners on the front lines so that they can 1643 talk to patients about that information. 1644 I appreciate both of you testifying Mr. Tonko. Thank you.

today and with that, Madam Chairwoman, I yield back.

1646 Ms. DeGette. The gentleman yields back. 1647 The chair now recognizes the gentlelady from New Hampshire, 1648 Ms. Kuster, for five minutes. 1649 Thank you, Madam Chair, and thank you to our 1650 witnesses for being with us and to all the caring families that 1651 are here with us today as well. 1652 Thanks to the introduction of the MMR vaccine, 56 years ago 1653 the vast majority of families in the United States have never 1654 had to experience firsthand. 1655 Perhaps the fact that measles is so rare now has contributed 1656 to the misunderstandings about the disease itself, its potential severity, and the threats posed by the outbreaks, and you both 1657 1658 testified to us today about how measles poses a public health 1659 threat and we have evidence ongoing right now as these pockets are -- the contagious nature of the disease is being demonstrated 1660 1661 in these communities with low vaccination rates. 1662 We have been fortunate in New Hampshire to have very high 1663 vaccination rates and thus we have not experienced -- and I should 1664 knock on wood -- an outbreak of measles in the Granite State. 1665 But recently we have a new threat and that is an outbreak 1666 of hepatitis A. Hepatitis A is not currently a required vaccine 1667 in New Hampshire, though it is in 13 states. 1668 I would love to ask you, are you concerned about that the 1669 continued distrust of vaccines like the MMR or hepatitis B will

detract from efforts to vaccinate for future maladies and in particular, in this case, hepatitis A and how concerned should we be in terms of protecting my constituents from outbreaks of new pathogens including hepatitis A?

Dr. Messonnier. Yes. I think that is a great point. You

Dr. Messonnier. Yes. I think that is a great point. You know, in the equation that a parent has in terms of what they believe is the risk of disease and the safety and effectiveness of vaccine, if they don't see the disease as a clear and present danger sometimes they don't vaccinate.

When I try to talk to families and parents about immunization, I don't want to scare them into getting measles vaccine. I want to increase their faith in the U.S. immunization program and in the immunizations that are part of it so they don't just get measles vaccine. They get all of the recommended vaccines.

Ms. Kuster. And could you comment? For something like hepatitis A that's not required as a vaccine in most states how do we get to the point where we would have herd immunity -- where people would be safe from this public health threat and how do we go about educating the community of what the risks are to individual families with hepatitis A?

Dr. Messonnier. I am sorry to say that I am not enough of an expert in the hepatitis A vaccine to answer that. But we will certainly get --

1694 Ms. Kuster. Could you answer just generally about herd 1695 immunity, not using hepatitis A per se but just the concept of 1696 getting us to the place where most people in the community are 1697 safe from a particular pathogen or contagious disease? 1698 Dr. Messonnier. So the concept of herd immunity is that 1699 by vaccinating an individual you don't just prevent them from 1700 getting disease but you also prevent them from transmitting it 1701 to others. 1702 And what that means is that in a community individuals who, 1703 for example, can't get the vaccine because they are too young 1704 or they have some kind of illness that prevents it are still 1705 protected by the question of protection provided by their 1706 community. It is a really important concept and it is why we as a society need to take care of those most vulnerable children. 1707 1708 Hepatitis A is a bit different than measles, Dr. Fauci. 1709 as we all know, for a number of reasons is that if you look at 1710 the level of herd immunity that you would need with measles it 1711 is really 92, 93 to 95 percent. 1712 Ms. Kuster. It is quite high. 1713 It is much less so -- it is much less so with Dr. Fauci. 1714 Hepatitis A is something you want to avoid. 1715 avoid it. It is a really good vaccine and it is a safe vaccine. 1716

It tends, unlike measles, which is essentially an equal

1718 opportunity microbe, in that it is, as we have seen the outbreaks 1719 of hepatitis A they are very much more skewed towards homeless 1720 individuals, individuals who are in a situation where hygienic 1721 issues are a problem. We have seen outbreaks in different cities 1722 throughout Nevada and Las Vegas and other places. 1723 So it is a preventable disease and, as Dr. Messonnier said, 1724 we would encourage people to embrace the entire vaccination 1725 program because we have vaccines that are preventing diseases 1726 that were problems years ago. 1727 Ms. Kuster. Well, thank you for your work. We appreciate 1728 it, and certainly as a mother I appreciate keeping my own family 1729 Thank you. I yield back. 1730 I thank the gentlelady. The ranking member Ms. DeGette. 1731 has some final comments. 1732 So I just want to close and thank the witnesses Mr. Guthrie. 1733 for coming, and I have discussed this with several people back 1734 home and I just want to reiterate what I said. I know there are 1735 a lot of parents in the room here today. 1736 There is not a parent I have talked to that whatever decisions 1737 they are making are making it -- what they believe in the love 1738 and the best interests of their child. 1739 And so I think it is important that we do have the science, 1740 the CDC, the NIH, and people with your credentials and reputations 1741 to present this evidence and hopefully people have the opportunity

to see it and to read it because I -- like I said, there is not
anyone that I have ever talked to that may have a different opinion
from me that the opinion wasn't formed in what they thought was
for the love and interest of their child.

So we appreciate people being here today. Thank you.

Ms. DeGette. I want to thank the witnesses for their
participation in this hearing and I want to remind members that

Ms. DeGette. I want to thank the witnesses for their participation in this hearing and I want to remind members that pursuant to committee rules they have 10 business days to submit additional questions for the record to be answered by witnesses who have appeared before the subcommittee.

I ask that witnesses agree to respond promptly to any such questions should you receive any and, again, thank you for giving us your science-based testimony today. We appreciate it.

And with that, this subcommittee is adjourned.

[Whereupon, at 11:35 a.m., the committee was adjourned.]

1749

1750

1751

1752

1753

1754

1755