

AGENDA

COVID-19 Vaccine Rollout in Rural Pennsylvania January 13, 2021

- 9:00 **Call to Order/Opening Remarks**
 Senator Gene Yaw, Chairman
- 9:05 Pennsylvania Secretary of Health Dr. Rachel Levine
 Q&As
- 9:25 Dr. George Garrow, Chief Medical Officer, Primary Health Network
 Mr. Steven Johnson, President, UPMC Susquehanna
 Dr. Cary Funk, Director of Science and Society Research,
 Pew Research Center
 Q&As
- 10:05 **Closing Remarks**
 Senator Gene Yaw
- 10:10 **Adjournment**



COMMONWEALTH OF PENNSYLVANIA
OFFICE OF THE SECRETARY OF HEALTH

Center for Rural Pennsylvania
Hearing on COVID-19 Vaccine Rollout in Rural Pennsylvania

Testimony of

Rachel L. Levine, MD,
Secretary, Pennsylvania Department of Health

Good morning Chairman Yaw and members of the board of the Center for Rural Pennsylvania. Thank you for the opportunity to appear before the board today to discuss the challenges presented by the biggest public health crisis facing this country in the last century, the COVID-19 pandemic.

The introduction of safe and effective COVID-19 vaccines adds a critical tool, partnered with containment and mitigation strategies, to combat the rampant viral spread in the United States. However, the distribution of the COVID-19 vaccine along with its administration is a herculean effort, one that our nation has never experienced. Currently, there are two vaccines that received an Emergency Use Authorization (EUA) from the US Food and Drug Administration (FDA); and one of which, the Pfizer BioNTech vaccine, requires ultra-cold storage capacity and ships in quantities of 975 doses that cannot be broken down into smaller allotments. The second product is from Moderna. The Moderna COVID-19 vaccine does not have the same logistical constraints as the Pfizer BioNTech vaccine. The Moderna COVID-19 comes in quantities of 100 doses and can be stored and handled much like other vaccines that providers use daily. In addition to the complexities around transportation and storage of both vaccines, each vaccine requires a second dose in a specified timeframe.

At the Pennsylvania Department of Health, our vision is a healthy Pennsylvania for all. Right now, we are laser focused in moving towards that vision by developing avenues to give all people access to the lifesaving COVID-19 vaccinations. It takes careful orchestration to get the right vaccine into the right arm at the right time and the Department is committed to this task. Running vaccination programs is foundational to our work in public health. We learned a lot through our collective experience during H1N1 and we have detailed plans to meet the challenge of this historic moment; however it will take a comprehensive national approach to be successful, making coordinated adjustments along the way, to bring an end to the pandemic.

As you know, Pennsylvania is a large and geographically diverse commonwealth with population density varying from fewer than 15.0 people per square mile in our most rural counties to 64,263.1 people per square mile in our most urban counties, according to the 2010 US Census. Additionally, there are about 250 hospitals across the Commonwealth that vary in size from small critical access hospitals to health systems offering quaternary care. These

geographic, resource, and jurisdictional issues present unique challenges and planning considerations to our statewide COVID-19 vaccine distribution efforts. However, we are committed to providing access in rural areas so that we vaccinate anyone who wishes.

As this mission in the community occurs, a separate mission led by the Federal Pharmacy Partnership - a collaboration between Operation Warp Speed, CVS, and Walgreens - is also underway. The Federal Pharmacy Partnership is coordinating all the logistics for this mission from the shipping to the actual vaccine administration and reporting. This effort will work to vaccinate both the staff and residents of licensed skilled nursing facilities, personal care homes, assisted living facilities and other long-term care facilities. This partnership began its work on December 28th and already, CVS has vaccinated staff and residents in more long-term care facilities in Pennsylvania than anywhere else in the country.

Like other states and jurisdictions receiving vaccine, Pennsylvania developed a COVID-19 Interim Vaccine Plan to offer a roadmap for vaccine distribution to protect the highest risk and most critical workforce and residents. The plan prioritizes Phase 1, with sub-prioritizations of 1A, 1B, and 1C, and Phase 2 populations in efforts to best align with federal recommendations offered by the Centers for Disease Control and Prevention's Advisory Committee on Immunization Practices (ACIP).

Currently we are in Phase 1A, with limited doses available, which identifies the priority populations of health care personnel in hospitals and long-term care facility (LTCF) residents and staff as the first groups to be vaccinated. These individuals are being vaccinated primarily at a hospital or on-site at the LTCF. Due to the ultracold storage requirement of the Pfizer vaccine, Pennsylvania has been directing the Pfizer vaccine to go to large health systems that have ultracold storage capacity and the ability to vaccinate many adults in a short period of time while meeting the storage and administration requirements. While some of these hospitals are in rural areas, Pennsylvania is using the Moderna product for more rural hospitals and providers due to its less restrictive storage requirements.

Phase 1B currently includes people age 75 or older, non-health care frontline essential workers, and persons in congregate settings not otherwise specified as an LTCF, as well as persons receiving home and community-based services. The populations identified in this section will be eligible for vaccination in Phase 1B if they were not vaccinated under another category in Phase 1A. These individuals will be vaccinated in partnership with pharmacies and Federally Qualified Health Centers to reach our rural settings. Additionally, the Emergency Management agencies located in each of the 66 counties will be essential in coordinating community-based vaccination in those counties.

Phase 1C currently includes persons aged 65–74 years, persons aged 16–64 years with medical conditions that increase or may increase the risk for severe COVID-19, and essential workers not included in Phase 1B. The populations identified in this section will be eligible for vaccination in Phase 1C if they were not vaccinated under another category in Phase 1A or Phase

1B. Lastly, Phase 2 encompasses the general public not previously identified by the Phase 1 sub-prioritizations. The federal government recently suggested that states should move outside of some prioritizations that were recommended by the ACIP, specifically for older adults. We are reviewing those specific recommendations and plan to review our plan accordingly.

As we move into later phases of the vaccine distribution, we will hold mass vaccination clinics in communities across the Commonwealth make the vaccine available to all who desire to be immunized. Pennsylvania specifically focused our COVID-19 Interim Vaccine Plan with deliberate intent to reach individuals of rural, ethnic, religious, homeless, differently abled, immigrant, refugee and LGBTQ populations. These efforts are executed with advisement by our Office of Health Equity and existing community partners established through our COVID-19 testing initiatives.

As with other communicable and chronic diseases, COVID-19 has disproportionately impacted people living in rural communities, along with communities of color, and people living with disabilities. Our focus on equitable access to the COVID-19 vaccine and addressing health disparities is a key tenet of Governor Wolf's administration. Pennsylvania's Interim COVID-19 Vaccine Plan was developed through a departmental health equity lens, heavily influenced by the Secretary's Vaccine Crisis Committee, a group of hospital specialists including vaccinology, gerontology, and medical ethics, as well as representation from the pharmacists association, Federally Qualified Health Centers, businesses, and the Department of Aging, which developed our ethical allocation strategy, and was informed by our departmental Health Equity Workgroup.

This will not be a short-term operation. We expect this operation will take months to vaccinate all willing Pennsylvanians. This task will be undertaken by a public health and health care system that is already strained and stressed by the current and ongoing response to COVID-19. The resource challenges are enormous. Although vaccination will be accomplished through many health care partnerships, some portion of this will fall on our public health staff, who are already overtasked with case investigation and general public health response. The public health infrastructure and investment in this country has been systematically stripped away over decades. What we have seen is that this pandemic has revealed the devastating impacts of that reality, along with the disconnect between public health and medicine.

Compounding those challenges is a baseline level of distrust that could significantly negatively impact vaccine uptake in the Commonwealth. Combatting this vaccine hesitancy and building trust is a cornerstone of the Commonwealth's Interim Vaccine Plan. In addition, the unprecedented speed with which these vaccines have gone from concept to production has caused a level of distrust nationally that must continue to be addressed with accessible, actionable, and coordinated messaging. Further, both vaccines have been shown to have some side-effects which may prompt some people to be more hesitant to receive a second dose.

As noted earlier both currently available vaccines were approved by the FDA through an EUA. Because of the severity of COVID-19, the FDA is working to get vaccine to Americans through

the EUA process. An EUA is used by the FDA to approve the use of safe and effective medical products during a public health emergency to diagnose, treat or prevent serious life-threatening diseases or conditions. For an EUA to be issued for a vaccine, the FDA must determine that the known and potential benefits outweigh the known and potential risks of the vaccine. With the advanced technology available today, the FDA can expedite its review process of thoroughly analyzing the safety and efficacy results of clinical trials. No steps have been skipped in these reviews.

All vaccines must undergo the EUA approval process before being fully licensed. After a vaccine is approved and licensed, the FDA continues to oversee its production to ensure continued safety. It is important to remember that monitoring of the vaccine and its production activities continue ~~if~~ even when the manufacturer holds a license for the vaccine product. Vaccine manufacturers are all following the same process to make a COVID-19 vaccine available through an EUA.

In public health emergencies, such as a pandemic, the development process may not follow routine timelines. However, it is important to remember that these COVID-19 vaccines have been produced according to rigorous standards set by the FDA and are safe for people to get when available. The COVID-19 vaccine will help to prevent the virus or lessen the severity of the symptoms if someone does get it. According to EUA data, both vaccines are within the 90th percentile of efficacy, giving a great deal of confidence in their ability to be a highly effective tool against this virus. While there have been some adverse reactions reported, they have largely been mild to moderate and usually last only a few days.

However—now that the vaccine is available, it is not a simple cure to the coronavirus and will not quickly end the pandemic. This is why it is critical that all Pennsylvanians continue to follow the targeted mitigation orders set in place and do their part to stop the spread of the virus. Mitigation is more important now than ever. We still need to wear a mask and we still need to physically distance. In fact, we will have to continue to take these steps until most people have been vaccinated.

Despite these challenges I outlined today, I am proud of the immense amount of public health work that has brought us to this point. I look forward to continuing our part of the hard work needed to bring this pandemic to an end. Thank you for the opportunity to offer remarks. I am pleased to take any questions you may have.

Center for Rural Pennsylvania

COVID 19 Vaccine Testimony by Steve Johnson, president of UPMC Susquehanna January 13, 2021

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1. Background on UPMC Susquehanna
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5. Lessons Learned
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1. Background on UPMC Susquehanna

UPMC in the Susquehanna region is comprised of 2 general acute care hospitals, 3 critical access hospitals, 6 long term care facilities and a large home health service. Its primary market is northcentral PA with major facilities located in Lycoming, Clinton, Tioga and Potter Counties and outreach services in many surrounding counties. Our total 12 county market has more land mass than the state of New Jersey with a population of just over 700,000. The population density of our primary market is 104 people per square mile with Potter and Sullivan Counties registering only 17 people per square mile.

Because the areas served typically lack county or city health departments, our hospitals frequently function as the de facto local public health body. In this role our staff often provides free consultative or advisory support to elected officials, public institutions and local business and industry.

2. About Our Patients

Our patients and nursing home residents live in Pennsylvania's rural north central region and contrary to popular opinion, country living is not necessarily healthier living. National and State data suggest rural residents tend to be older and suffer from more comorbid conditions. A 2017 CDC study reported those in rural communities are more likely to die from heart disease, cancer, unintentional injuries, chronic lower respiratory disease, and strokes than their urban counterparts.

Rural residents are also less likely to take preventive measures to avoid contact with someone who has COVID or to receive a vaccination to prevent the disease. In a recent report released by the Kaiser Family Foundation residents in rural America stand out as one of the groups most hesitant to get the COVID 19 vaccine and their views on the pandemic pose unique challenges for the nation's mass vaccination effort. For example, rural residents tend to believe the seriousness of the pandemic has been generally exaggerated in the news. Our own local experience is until a resident personally knows someone who has died directly from COVID-19 they are unconvinced of its voracity or risk. A further complicating factor has been the loss of confidence in the CDC and FDA and waning trust in government to look out for their best interests. Neighboring hospitals and health systems have recorded similar experiences with their employees and patients.

3. UPMC Susquehanna COVID-19 Experience to Date

When the pandemic began last spring, masking, hand washing and social distancing was immediately initiated, as were travel restrictions and curtailment of public gatherings. In addition, hospitals were required to cancel elective procedures in preparation for a massive wave of very sick and very contagious COVID 19 patients. This did not occur in northcentral Pennsylvania where the unintended consequence was to place non-emergency patients suffering from other health conditions at risk of delaying necessary prevention, diagnosis, or treatment while staff and services sat idle. At best, rural patients during this time experienced unnecessarily delays in care and at worst, they suffered and possibly died unnecessarily.

By July the northcentral PA region continued to see a very low incidence rate of COVID infections so UPMC Susquehanna reinstated essential hospital services including many preventive and screening services. In the fall COVID infections exploded. In the post-Thanksgiving period, it was not unusual for 40% of Williamsport's and 60% of our community hospitals inpatient volumes to be COVID positive. While no patients were turned away, the strain on supply, logistics, bed capacity, and staffing were significant. Susquehanna managed this extraordinary service demand by transferring resources across its own 6 locations, coordinating with UPMC's Altoona and Pinnacle facilities and communicating with Evangelical, Geisinger and Guthrie health systems.

During this time the region benefited greatly from Susquehanna's connection with UPMC in three major ways. First, UPMC's strong supply chain helped assure our staff had sufficient personal protective equipment when national supplies were very scarce. Second, the financial strength of UPMC and their commitment to caring for employees allowed us to implement a pay protection program assuring no employees were furloughed and every employee continued to receive their regular pay checks whether they were performing their routine duties or not. And third, the medical scientists and research experts from UPMC's academic medical center provided regular briefings to our medical staff, administration and infection control teams helping us gain and sustain the most advanced knowledge about how the virus

spread and how to deliver the most advanced inpatient and outpatient treatment protocols in the industry. This support continues to this day.

The single biggest problem we continue to face is the shortage of qualified staff. Nursing positions which were vacant when the pandemic began have remained unfilled because nearly every hospital in the country is looking for more nurses. Delays in getting Pennsylvania licenses thwart successful recruiting efforts by delaying start dates of new hires. In addition, the stress of extra work or the fear and anxiety of working in such a challenging environment has caused some staff to resign. On a positive note, we have been able to recruit several physicians from major metropolitan areas because the COVID incidence rate there is higher, resources are more constrained, hospitals are more overcrowded, and mortality is higher.

Currently our hospitals continue to run at or near capacity and our testing centers positive incidence rate has been running 20% compared to 5% last spring. But on a bright note, we have the lowest inpatient COVID volume since last fall.

4. Challenges of Treating COVID 19 patients and residents

During this time our staff have been true heroes. They have worked more hours under more challenging conditions and with a higher patient acuity and mortality than most of them have seen in their entire careers. They and all members of our front-line healthcare workforce deserve our unflinching appreciation and admiration. That said, there are several noteworthy challenges. For example:

1. Managing the issue of staff self-quarantine has been very costly and time consuming.
2. Constant donning and doffing of personal protective equipment is exhausting and expensive.
3. Nursing care work is already very physical. Personal protective equipment adds a hot and uncomfortable element to the job.
4. Overtime, reassignments and teamwork are a 24/7 requirement.
5. While we receive a modest premium for serving COVID patients, it is not enough to offset all of the additional operating costs of caring for this population.
6. The staff is dealing with a mortality rate that is higher than usual. This takes a mental and emotional toll on our caregivers.
7. Patient flow has been significantly disrupted because COVID 19 patient length of hospital stay is three times longer than average in part because:
 - a. Nursing homes are not accepting referrals
 - b. Acute care patients needing to be discharged to nursing homes have nowhere to go
 - c. Patients who need to be admitted from the emergency rooms have no acute care beds and so we end up boarding patients in our ER's
8. To minimize the spread of COVID, we limit visitors to one per patient, making the inpatient experience very lonely.

9. To further reduce exposure and spread we have also eliminated the use of volunteers. This places even more stress on staff and creates even lonelier situations for patients and residents.
10. In addition, congregate therapeutic services have been eliminated. This means services such as physical therapy, occupational therapy and recreational therapy must take place in one-on-one settings. At nursing homes this includes dining and beauty salon services. This is more labor intensive and further contributes to the feeling of isolation by patients and residents.

5. Lessons Learned

Among the most important lessons learned to date:

1. We have found tremendous value in using an inter-professional, inter-campus and multidisciplinary cross coverage approach to patient care.
2. Leveraging evidence from our own clinical analysis of the disease, related contagion, and treatment protocols has proven to be invaluable.
3. Proper deployment of antiviral drugs, systemic steroids, outpatient monoclonal antibody treatments, convalescent plasma and more aggressive home care oxygenation systems has helped reduce the dependence on inpatient services, critical care, and the use of ventilators.
4. It is essential to maintain a certain amount of excess inpatient capacity across the region
5. Supporting our employees as they deal with related physical and emotional stressors requires thoughtful preparation and sensitive application.

6. Vaccines

The Pfizer vaccine must be maintained at -70 Celsius and Moderna at -20 degrees Celsius. The standard medical freezer reaches its maximum low temperature of -20 degrees Celsius. This is problematic for resource constrained rural hospitals who can't typically afford more than the standard medical freezers.

Pfizer must be reconstituted, prepared and mixed by a pharmacist. Chain of custody for any of the vaccines is also very important and resource intensive. Again, this places an extra strain on rural hospitals who typically assign staff to multiple functions in their facilities.

7. Distribution and Administration

The need for speed, ultra-low temperature, potential side effects and two dose requirements create a complicated distribution and administration system. In addition, distribution to date has been somewhat awkward and unpredictable, but is getting better. We appreciate the war on this virus is comprised of many complex battle plans and that *no battle plan survives first*

contact with the enemy. We also know we live in an imperfect world and that flexibility in these early iterations is very important.

To date UPMC Susquehanna has completed most first round vaccines and initiated the second round using primarily the Pfizer product for hospital-based employees who volunteered. Our administrative staff and nursing home vaccination program began this week using the Pfizer and Moderna products respectively. The hospital employee vaccine ratio of accepted to declined is 80 - 20 in Pittsburgh, 75 - 25 in Williamsport, 70 – 30 in Lock Haven, 60 – 40 in Muncy, Wellsboro and Coudersport and 50 - 50 in our regional nursing home staff. In contrast, we expect 98% of nursing home residents to take the vaccine.

8. Other related UPMC Initiatives

1. Effective December 31, UPMC including here in northcentral PA is part of the Regional Congregate Care Assistance Teams (RCAT). The RCAT program replaces the federally supported Regional Response Health Collaborative (RRHC) program, which ended in December. The state-funded RCAT program continues to leverage the expertise of certain health systems to help long-term care facilities that are struggling with COVID-19 outbreaks.
 - a. Through RCAT, UPMC is leading efforts to make sure health care workers and residents in facilities REGIONALLY are safe and supported.
2. UPMC medical scientists continue research on an improved version of antibody therapy, one that may aid in COVID-19 care and be a model for any future infection therapy.
3. To date, UPMC has inoculated nearly 42,000 staff with approximately 9,000 receiving their second dose.
4. In addition, we have inoculated over 2,300 independent EMS staff including 300 across the northcentral PA region.
5. UPMC will begin community clinics for other independent allied health employees and first responders later this week and next Tuesday we will begin in Clinton and Tioga Counties, Wednesday in Lycoming County and Friday in Potter County.
6. UPMC hospitals are happy to assist vaccinating independent allied health providers in our respective communities and are also willing to help vaccinate the public as directed by the Governor's office.

9. Concluding Call to Action

In conclusion, we anticipate another post-holiday surge in demand will begin shortly and so must remain vigilant in our prevention, mitigation, and treatment work. To continue this fight, we need:

1. An aggressive public health campaign to encourage rapid vaccination of allied health providers and the public.

2. We need resources to educate the public about the disease and the vaccine which can be used by doctors, nurses, or other familiar health care providers to educate their patients and the public.
3. We need to accelerate the process of getting Pennsylvania state licenses for physicians and nurses who move in from out of state.
4. And finally, we need a disciplined and appropriately resourced plan to use community hospitals to help vaccinate the general public, especially in rural settings.

UPMC has been a leader in fighting this pandemic since its inception and we look forward to continuing our partnership with our government colleagues and other regional healthcare providers until we are victorious.

10. List of references

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4. Modern Healthcare January 10, 2021 Vaccine Rollout Confirms Public Health Officials' Complaints
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6. Rural Health Information Hub, Rural Health for Pennsylvania 11/25/20
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8. Re-imagining Leadership: A pathway for rural health to thrive in a COVID 19 world. 2020 CHA and the Regents of the University of Colorado, 1800 Grant Street, Denver, CO 80203

Testimony from Cary Funk, director of science and society research at Pew Research Center for public hearing on “COVID-19 Vaccine Rollout in Rural Pennsylvania”

Thank you for having me here today. I’m happy to share what Pew Research Center has learned about people’s intention to get the new coronavirus vaccines and the kinds of factors that can make people more and less inclined to get vaccinated.

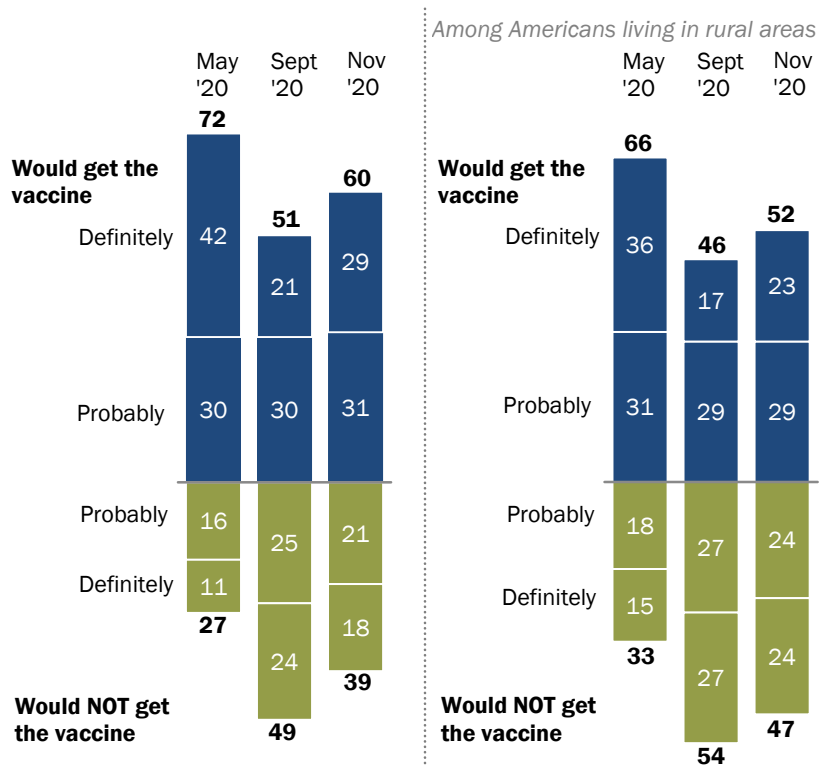
Center surveys are conducted with a nationally representative sample of U.S. adults. We will talk about wide differences among Americans in these views including among those living in rural areas but please be aware that we don’t have enough survey respondents in rural areas of Pennsylvania to reliably estimate their views on these matters. We are seeing common patterns among rural residents across most regions of the country and believe these findings will be relevant to community experiences in rural Pennsylvania.

Public opinion about the new coronavirus vaccines has been fluid; rural Americans are among those closely divided over whether to be vaccinated

As of November, 60% of Americans say they would definitely or probably get a vaccine for the coronavirus, if one were available today. About four-in-ten (39%) say they definitely or probably would *not* get a coronavirus vaccine.

Growing share of Americans intend to get a COVID-19 vaccine, though fewer rural residents say they would

% of U.S. adults who say if a vaccine to prevent COVID-19 were available today, they ...



Note: Respondents who did not give an answer are not shown.
 Source: Survey conducted Nov. 18-29, 2020.
 “Intent to Get a COVID-19 Vaccine Rises to 60% as Confidence in Research and Development Process Increases”

The share of Americans who say they would get a coronavirus vaccine fluctuated over the past few months from a high of 72% last May to 51% in September to six-in-ten as of November 2020.

There are wide variations in the degree to which groups intend to be vaccinated and intention among these groups has been fluctuating over time as well.

Rural Americans are closely divided over whether to be vaccinated. Among those living in rural areas across the nation, 52% say they would definitely or probably get a coronavirus vaccine while 47% would not. This compares with 61% of those living in urban areas and 64% of those in suburban areas saying they would get a vaccine.

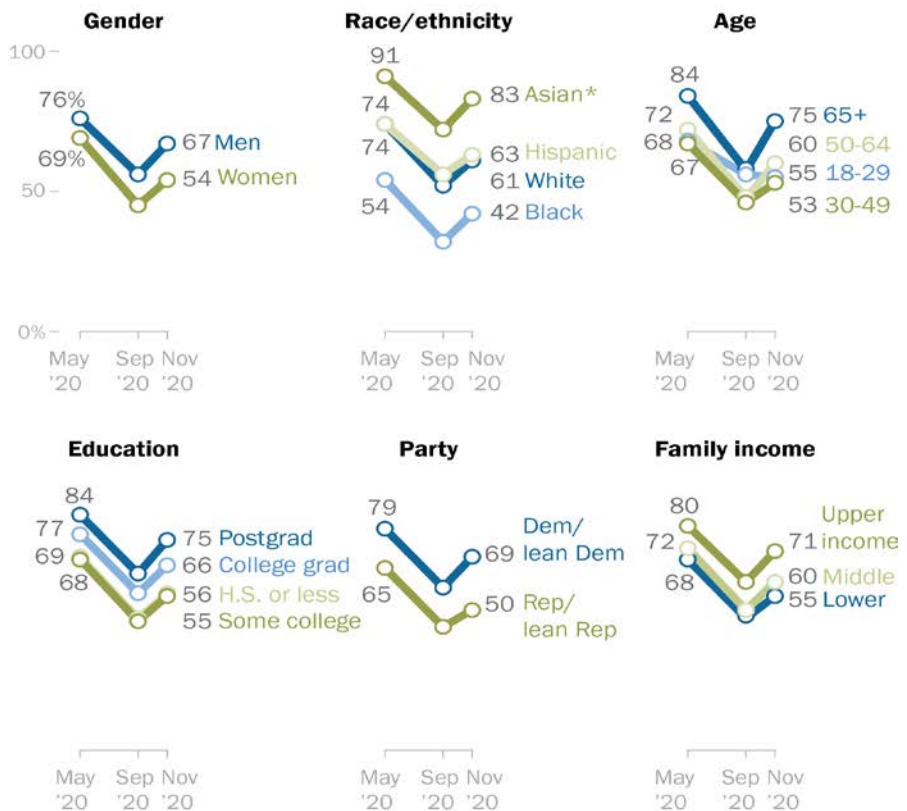
Those living in rural areas across the Northeast, Midwest, south and west are all less inclined than those in urban or suburban areas to say they would be vaccinated.

Other groups who stand out as less inclined to get a vaccine are Black Americans, younger adults, those with lower family incomes and those with less education.

Older adults are more likely than younger adults to say

Growing share intend to get COVID-19 vaccine, though fewer than half of Black adults say they would

% of U.S. adults who say they would definitely/probably get a vaccine for COVID-19 if one were available today



* Asian adults were interviewed in English only.

Note: Respondents who gave other responses or did not give an answer are not shown. White, Black and Asian adults include those who report being only one race and are not Hispanic. Hispanics are of any race. Family income tiers are based on adjusted 2019 earnings.

Source: Survey conducted Nov. 18-29, 2020.

"Intent to Get a COVID-19 Vaccine Rises to 60% as Confidence in Research and Development Process Increases"

they would be vaccinated, keeping with the idea that the coronavirus poses a particular health risk for older adults. These age differences occur in rural areas as well as in more densely populated areas. For example, 61% of rural adults ages 50 and older say they would get a coronavirus vaccine compared with 41% of rural adults ages 18 to 49, a difference of 20 percentage points.

The factors driving public interest and hesitancy to be vaccinated are complex and often interrelated.

Our analysis shows a number of factors driving intention – or hesitancy – to be vaccinated.

Foremost among these are:

- *Personal concern* about getting a case of COVID-19 that would require hospitalization. Those most concerned about getting a serious case of the coronavirus indicate a higher likelihood of getting a vaccine. Those who see little personal need by this measure are closely divided over whether they would get vaccinated.

There are a number of reasons people might have heightened concern about getting a serious case of coronavirus. Those who are particularly worried about getting a serious case of the disease are inclined to be vaccinated –seven-in-ten of those in rural areas who are very concerned about this say they would be vaccinated compared with 37% of rural Americans who are not too or not all concerned. A difference of 33 percentage points.

- *Personal practices* when it comes to other vaccines. Those who say they get a flu shot yearly are much more likely than those who rarely or never do so to say they would get a vaccine for the coronavirus if one were available. One of the reasons for today's hearing stems from concerns about immunization rates in rural areas for other vaccines including influenza.
- *Trust* in the vaccine development process. Public confidence that the research and development process will yield a safe and effective vaccine for COVID-19 has risen this fall in tandem with intention to be vaccinated. And individuals who express more confidence in the vaccine R&D process are more inclined to be vaccinated.
- *Lingering concerns* about safety and effectiveness. Earlier this year, those who said they would opt out of a coronavirus vaccine often cited concerns about side effects as a reason. And in the Center's November survey most Americans said they would be uncomfortable being among the first to be vaccinated, pointing to lingering concerns about safety and effectiveness of a new vaccine. A majority of those in rural as well as more populated areas expressed that concern. Only people who were definite in intention to be vaccinated said they would be comfortable

being among the first. A majority of those leaning to be vaccinated as well as those who were not intending to get the vaccine said they would be uncomfortable.

As a practical matter, millions are being vaccinated right now. But it's not clear whether experiences of people receiving the vaccine now will serve to alleviate people's doubts or concerns.

Options for influencing vaccine uptake include addressing sources of hesitancy as well as practical issues influencing access, particularly in rural areas

Understanding the varied sources of people's concerns around the new coronavirus vaccines can help identify opportunities to alleviate those concerns.

For example, those with heightened concerns about getting a serious case of the coronavirus are, for the most part, intending to be vaccinated. The key question is how to convince the roughly half of rural Americans who don't see a personal need to get the vaccine. Other options include appealing to people's concern for their community. For example, by talking about getting vaccinated as something they can do to help those with more serious health risks around them, or as something that will help the local hospitals. Or another approach is to talk about the role of vaccines in helping businesses and economic activity in the community.

The conversations going on around the nation about ways to promote vaccination often talk about the role of trusted messengers to deliver information about the vaccine. That's part of the thinking behind prominent public officials and health care workers being shown receiving their vaccine. It's important to recognize that there's not just ONE trusted messenger. Communities need trusted messengers that reflect the range of people and concerns in rural communities.

For example, to the extent that more conservative communities have seen the response to the outbreak as overblown, it's especially important that these communities have role models who are trusted as conservative voices showing their support for being vaccinated and talking about the need for people to do so. The same principle extends to people of other groups.

Public polls show that people's health care providers are especially trusted for information about the coronavirus. Thus, the health care community can be an important voice in helping address public concerns and encouraging vaccination.

Lastly, Center surveys focused on people beliefs and attitudes about vaccines at a time when the vaccines were still in development. But now that vaccines are available, it's especially important to

remember that practical, logistical issues loom large in driving immunization rates. Making information about how and when people can get the vaccine is important. And making it easy to do so for rural Pennsylvanians is key. Efforts to bring distribution to where people can easily go or where they typically go are important ways to boost immunization rates whether that is through mobile health spots, pharmacies or other places people go in their everyday lives.