

Ensuring Access to COVID-19 Vaccines for Older Adults and People with Disabilities Who Are Homebound

Recommendations and Considerations for Federal, State, and Local Agencies and their Partners



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Executive Summary

As we complete this publication, many Americans have options when identifying where and how to access COVID-19 vaccines. However, this is not true for those who are homebound due to age-related or other disabilities and therefore require in-home vaccinations.

The number of homebound older adults in the United States is estimated to be 2 to 12 million. Compared to other older adults, this population is more likely to suffer from chronic health conditions, be female, have lower incomes, and be from racial minority groups.^{1,2} Due to their health conditions, people who are homebound are at greater risk of serious impacts if infected by the COVID-19 virus.

Public health agencies and their partners who allocate and distribute vaccines bear the responsibility for safeguarding the health of people who are homebound by ensuring equity in vaccine distribution and administration. The infrastructure to ensure vaccine access to this population must be created in many jurisdictions. In other places, it must be leveraged from existing resources. In either case, these infrastructures will better safeguard the health of homebound people during the COVID-19 pandemic and provide needed response capacity during future public health emergencies.

The federal government must continue to provide guidance; embrace an ongoing oversight role for monitoring and evaluating progress addressing the challenges outlined in this brief; and should conduct a national review of vaccine uptake to ensure that those who are homebound are not left unprotected.

Based on stakeholder interviews, a grey literature review, a peer-reviewed literature review, and virtual convenings with public health and aging sector leaders, Trust for America's Health (TFAH) proposes the following **recommendations for enhancing access to COVID-19 vaccines for older adults who are homebound and people with a disability who are homebound**:

- #1 Prioritize the administration of the COVID-19 vaccine to people who are homebound — especially older adults and those with disabilities — and their caregivers, providing sufficient vaccines and the necessary resources to administer them to protect all homebound persons in the shortest time possible.
- #2 Develop a standardized operational definition of “people who are homebound” that can be used to prioritize and provide COVID-19 vaccination for this population and their paid and unpaid caregivers.
- #3 Guarantee equitable vaccine access to homebound persons and ensure that none are under-served or overlooked due to race, ethnicity, age, socioeconomic status, urban or rural location, or other factors.

- #4 Work with public and private sector partners to select a range of data sources to identify the homebound population while respecting privacy rights. Adapt existing data use and sharing agreements to rapidly assess vaccination patterns, identify pockets of under-vaccination, and assist in ensuring equitable vaccine resource allocation.
- #5 Develop and actively promote multiple communication channels for vaccine registration and scheduling, to ensure ease of interaction with those who are homebound and/or their caregivers, including the use of channels that minimize reliance on computers and internet access.
- #6 While prioritizing safety, encourage and allow flexibility and creativity in ways to reach people who are homebound, determine which vaccines to offer, engage all parties involved in the vaccination process — from planners, administrators, and vaccinators to people being vaccinated and their caregivers, and utilize effective means of ensuring access.
- #7 Leverage partnerships and establish new ones with public and private sector organizations that already serve the homebound to ensure equitable and efficient vaccine distribution, promote vaccine messaging by trusted community leaders, and potentially expand the pool of skilled vaccinators.
- #8 Ensure that, to the greatest degree possible, in-home vaccination teams include people who are trusted by those being vaccinated and represent the diversity of the population being served.
- #9 Ensure coverage of all homebound vaccination costs, including administrative costs and the costs associated with transportation and observational time.

Background

Access to the COVID-19 vaccine for older adults has been prioritized across the country due to their vulnerability to more serious illness from the virus. However, for the millions of individuals with health conditions or disabilities who cannot leave their homes (or can do so safely only with considerable assistance), clinic-based vaccine access is challenging or impossible. The Centers for Disease Control and Prevention, (CDC) has identified the unique needs of this population in its recent [guidance](#) on vaccinating people who are homebound.

Identifying those who are homebound presents a unique challenge, as definitions of who is homebound vary widely, and none are fully inclusive. For this brief, we use the Centers for Medicare and Medicaid Services (CMS) definition of homebound persons as those that need the help of a caregiver or medical equipment such as a wheelchair, walker, or crutches to leave their homes, or those whose doctors believe their health could decline if they were to leave the home.

Estimates of the number of older people who are homebound due to disease, frailty or disability age range from 2 to 12 million.^{3,4} However, the actual number and characteristics of those who are homebound and experiencing barriers to COVID-19 vaccine access are not fully understood, nor are the optimal approaches to overcoming those barriers. Also, the roles of various organizations (governmental, non-profit, community, and for profit) in ensuring access to COVID-19 vaccines for the homebound population are uncertain. No single strategy or practice has been identified as best and replicable across communities.

In addition to variations in the definition of “homebound,” vaccinating this population is also challenging because of inconsistent vaccination policies, unique logistical hurdles, insufficient reimbursement rates, the presence of vaccine hesitancy, and a limited vaccinator pool within and across states. The compounding effect of these challenges can lead to inequitable vaccine distribution for homebound persons already marginalized by age, race, ethnicity, disability, sexual orientation or gender identity, and geographic location.

We need public health systems that work for everyone.

TFAH is working through its Age-Friendly Public Health Systems Initiative to encourage state and local health departments to prioritize healthy aging and embrace older adult health as a core function. Partnering with state and local health departments and national stakeholders, TFAH is working to implement a public health framework as part of the Age-Friendly Ecosystem that is essential to improve the health and well-being of older adults.

The Age-Friendly Public Health Systems Initiative is made possible by the generous support of The John A. Hartford Foundation with additional funding from the Cambia Health Foundation for activities leading to the development of this policy brief.



Most older adults (93.5 percent), including those with multiple underlying medical conditions and those with functional or cognitive impairment, live in the community rather than in nursing homes or other congregate living environments.⁵ Older adults living in such facilities have rightly been prioritized for vaccinations; however, this is not the case for equally vulnerable older adults and individuals with disabilities who cannot leave their homes — or can only do so with assistance and considerable effort that could compromise their health and increase their risk of exposure. Similarly, caregivers (paid and unpaid) who provide assistance to individuals who are homebound are also not being prioritized for vaccination, despite their interaction with vulnerable persons and being limited in their ability to leave their charges to be vaccinated. It is challenging to identify these caregivers and state, territorial, local and tribal (STLT) governments have no clear path to doing so.

In addition, many STLT governments report that they remain unsure how to best navigate the complexities of increasing the number of certified vaccinators and accessing and appropriately handling vaccines for multiple home visits that are geographically dispersed.

The recommendations in this brief provide critical guidance and exemplars for planning and action at the federal, state, and local levels. The considerations explored offer a multifaceted framework to increase vaccine access among the homebound across the United States. The best practices shared here are meant to inform and assist those at all levels — from the federal government to frontline agencies.

Since TFAH began the research and communications to develop this policy brief, notable progress has been made, including new federal funding that can help vaccinate those who are homebound and their family caregivers.⁶ In addition, more and more states and local health and aging departments and agencies have begun to plan or take action to reach this population. Furthermore, the COVID-19 pandemic has put a spotlight on gaps in existing care delivery; these recommendations have broad implications for how to improve care delivery for people who are homebound beyond the current crisis.

Barriers to Ensuring Vaccine Access for Those Who Are Homebound

For older adults and those with disabilities who are homebound, barriers to receiving COVID-19 vaccinations are rooted in and add to overall health inequities. The accumulation of obstacles ranges from those related to the impact of their physical or behavioral diagnoses or conditions (e.g., limited motor dexterity, cognitive impairment) to those related to physical and logistical barriers (e.g., limited or no transportation options, lack of access to or comfort with internet communication) to those related to distrust of the healthcare system (e.g., discrimination, surprise billing, uneven communication, lack of cultural awareness on the part of providers). Furthermore, for people of color and members of Tribal Nations, discriminatory practices and policies have resulted in additional barriers — such as a lower rates of health insurance, less access to quality health care, and fewer resources to pay for in-home care.

For STLT health departments, and community partners — already stretched thin due to the demands of the pandemic response — the obstacles include limited or unpredictable vaccine supply, insufficient reimbursement rates, inconsistent definitions of “homebound,” inability to identify eligible individuals, logistical issues regarding storage and transportation of temperature-sensitive vials, presence of vaccine hesitancy, and a need for more vaccinators prepared to work with people who are homebound.







Recommendations and Considerations

The recommendations in this brief provide actionable steps for a successful vaccine delivery framework for people who are homebound. They call for federal agencies, STLT governments, and non-governmental partners to ensure action where the needs and benefits are the greatest. Where available, we provide examples of how each recommendation has been implemented using innovative practices.

These recommendations have been vetted by a multidisciplinary review team that represents joint expertise in the health issues of the homebound population and entities involved in the homebound vaccine delivery framework. However, these issues are rapidly evolving with the growing availability of the vaccine, knowledge of the virus, and our collective ability to adapt. Questions that will need attention in the coming months include how often vaccines will need to be readministered over time and the impact of emerging variants.

Table 1 provides a quick reference for the lead agency or party responsible for implementing the proposed recommendations.

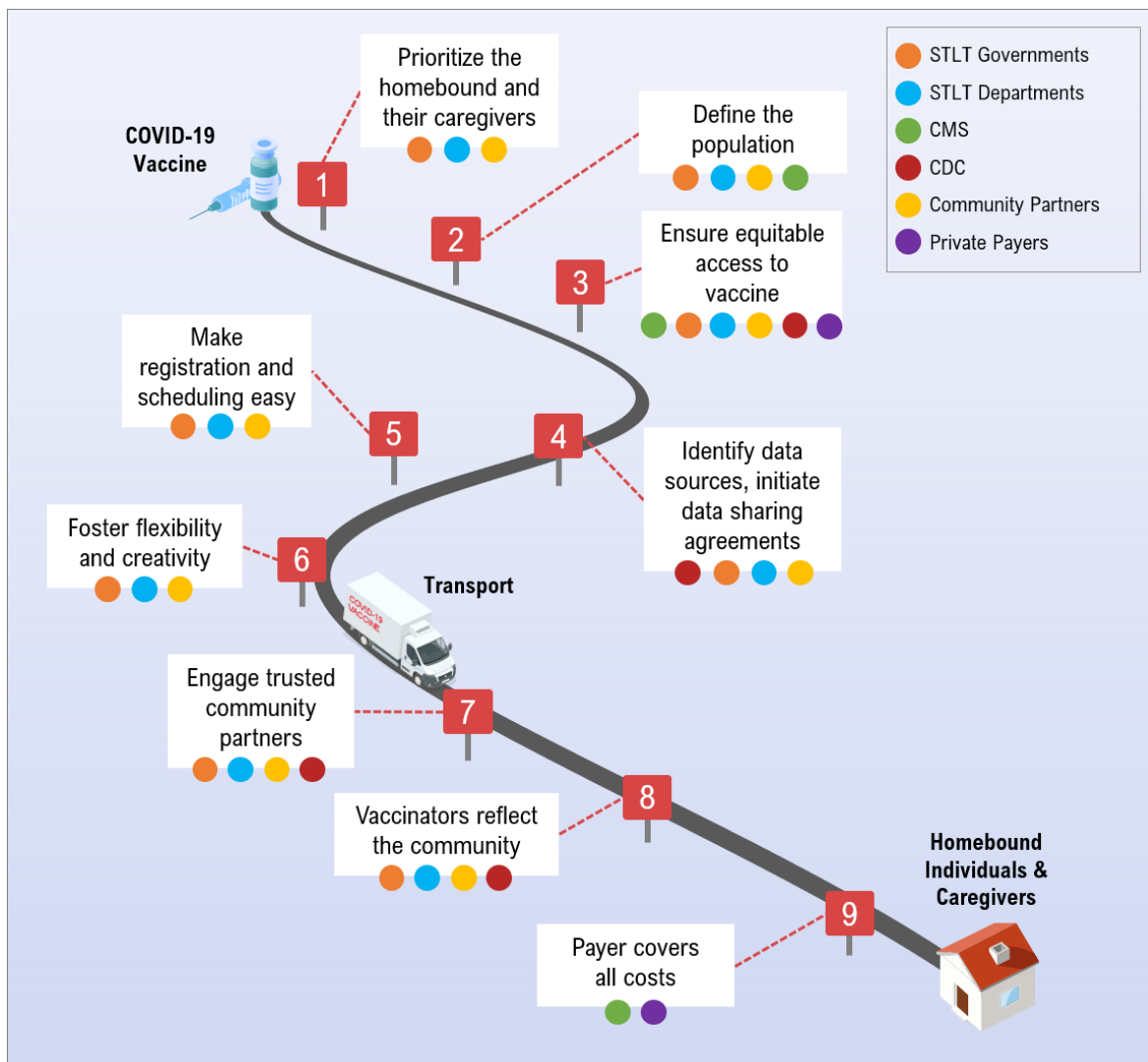
Table 1: Responsibility for Implementing Recommendations

Recommendation	CDC	CMS	STLT Govts	STLT Health Agencies	Community Partners	Private Payers
						
#1 Prioritize the homebound and their caregivers			•	•	•	
#2 Define the population		•	•	•	•	
#3 Ensure equitable access to vaccine	•	•	•	•	•	•
#4 Identify data sources, initiate data sharing agreements	•		•	•	•	
#5 Make registration and scheduling easy			•	•	•	
#6 Foster flexibility and creativity			•	•	•	
#7 Engage trusted community partners	•		•	•	•	
#8 Vaccinators reflect the community	•		•	•	•	
#9 Payers cover all costs		•				•

All levels of government as well as those in the non-government health, aging, and community services sectors have a responsibility to ensure that older adults and people with disabilities who are homebound are vaccinated. Every locality needs to develop programs that work best for their geography, population demographics, health delivery systems and available resources. The

knowledge, skills, and existing relationships of those in the private sector are also needed to quickly and effectively reach people confined to their homes.

To ensure that the homebound populations everywhere have their needs met, federal agencies will need to reinforce the importance of reaching the population, ensure that sufficient vaccines are made available, and monitor and evaluate the short-and long-term progress made and the barriers that persist. Those agencies should also provide training, technical assistance, recommend proven approaches and resources to eliminate gaps in uptake when needed. Early analysis of state-reported data⁷ is raising concerns that while an increasing percentage of eligible individuals in many high-risk groups are getting vaccinated, with very few exceptions, the rates of vaccination for homebound individuals have not kept pace.



This graphic illustrates how recommendations align to key elements of vaccine allocation and distribution, and the responsible entity.

Prioritize the Homebound Population

The federal government supplies COVID-19 vaccines directly to states, the nation's biggest cities, territories, Tribal Nations, and pharmacies. In turn, states decide how best to allocate the doses within the state, providing them to local municipalities and other entities. Decisions regarding the prioritization and use of those vaccines for the homebound may be made at the federal, state, local, territorial or Tribal Nation levels. Through partnerships, agencies serving the homebound may receive their vaccine supply from departments of health, healthcare systems, or local retail pharmacies.

Many home care providers describe the current vaccine supply as a 'hunger games' environment, alluding to the dire need for greater vaccine supply and more deliberate allocation strategies in some jurisdictions.

Most states are following specific multi-phase approaches to ensure equitable prioritization. However, the Biden administration announced that by April 19, 2021, STLT governments should make all adults eligible for the COVID-19 vaccine.⁸ As eligibility broadens and vaccine supply continues to improve, the focus will shift from prioritizing groups based on health risk toward efficiently and equitably using resources for full population vaccine delivery. Because of the resources and infrastructure needed, even under the best circumstances, the timeline for completing the vaccination process is likely to be longer for the homebound. Creating the needed administrative and operational infrastructure will be a factor that differentiates localities that vaccinate their entire homebound population and those that do not.

It is the responsibility of STLT health agencies to assess evolving vaccine coverage and vaccine uptake trends in order to project demand. Such projections require consideration of the variation in the time it takes to vaccinate people who are homebound. Also, STLT health agencies should factor in the current vaccine supply and projections of future supply based on information provided by federal agencies. Using their allocations from the federal government, states determine how best to distribute the vaccines. Therefore, they are likely to be the main source of vaccines for the homebound and, in some cases, have already provided independent healthcare providers with vaccines for people who are homebound. However, it is possible that the federal government might directly allocate vaccines for this population to health care organizations, as they have already done to pharmacies or community health centers to reach other populations.

Caregivers (including those who are paid, unpaid, licensed, and unlicensed) who support the daily, functional, and health needs of a homebound person must also be prioritized to reduce risk of infection and ensure equitable access. Some locations — such as Washington state — designated such caregivers in the same category of prioritization as hospital and nursing home employees. But most states did not. In a recent American Association on Intellectual and Developmental Disabilities research brief, 24 percent of family caregivers for people with IDD are over age 60 and at higher risk of complications from COVID-19.⁹ According to a 2020 AARP survey, there are more than 50 million family caregivers in the United States.^{10,11} Some people who are homebound will only consent to get the vaccine if their caregivers also receive it;

prioritizing caregivers promotes greater vaccine uptake within these vulnerable populations. Vaccinating caregivers at the same time as the homebound individuals under their care is efficient and strategic.

Recommendation 1: Prioritize the administration of the COVID-19 vaccine to people who are homebound and their caregivers, providing sufficient vaccines and the necessary resources to administer them to protect all homebound persons in the shortest time possible.

Lead agencies/groups: STLT government, STLT health agencies, community partners

Innovations in Practice:

- A clinic in Cleveland received a specially designated shipment of vaccines from the Ohio Department of Health for their largely unvaccinated home-based patients.¹² Like Ohio, states can help ensure equitable vaccine allocation by prioritizing supplies for home care providers and encouraging entities that have access to vaccines (hospitals, federally qualified health centers, local health departments, retail pharmacies) to enter into collaborative agreements to share the supply of vaccines.
- The state of Washington prioritizes paid and unpaid caregivers over the age of 50 in its allocation framework. Caregivers are recognized as people essential to the health and well-being of those who are homebound.

Define the Homebound Population

Definitions of the homebound population vary across federal, state, and local jurisdictions.¹³ Some local departments have even created their own definitions based on residents' needs, available data, and vaccine distribution strategies. Identifying the homebound population with standardized definitions goes hand in hand with prioritization to ensure equitable allocation; a definition that designates more individuals as homebound will necessitate allocation of more doses. Any effort to develop lists of people who are homebound should start with, but work beyond, existing lists. Efforts should also be made to triage who could be vaccinated at a community site if the right assistance were provided.

Definitions must be broad enough that all who need in-home vaccination are included. Inherently, the homebound are medically, and sometimes behaviorally and cognitively complex, but definitions based on specific medical, physical, or cognitive conditions can cause further complexity and should be avoided. As states expand eligibility to include homebound older adults, care should be taken to acknowledge the overlaps in eligible population groups within the homebound, such as younger homebound individuals who are equally vulnerable to illness due to COVID-19.

Recommendation 2: Develop a standardized operational definition of “people who are homebound” that can be used to prioritize and provide COVID-19 vaccination for this population and their paid and unpaid caregivers.

Lead agencies/groups: CMS, STLT government, STLT health agencies, community partners

Innovations in Practice:

- The Seattle King County, Washington Health Department defines a homebound individual as a person aged 50 or older who has not yet been vaccinated, who has a medical condition that makes it difficult to leave the home, and for whom it would be a considerable and taxing effort to receive the vaccine out of the home. See the full case example on page 18.
- The Washington State Department of Health recently clarified its definition of caregivers eligible for vaccination to ensure more consistent and equitable access. The new definition includes eligible caregivers (licensed, unlicensed, paid, unpaid, formal, and informal) who support the daily, functional, and health needs of another individual who is at high risk for COVID-19 illness due to advanced age, long-term physical condition, comorbidities, or developmental or intellectual disability.
- In some states which do not include caregivers in official high-priority groups, local health officials report that vaccinators often vaccinate caregivers with leftover doses; they see this practice as preferable to wasting doses since opened vials in the field must be used or discarded within a fixed time period.

Equitably Vaccinate People Who Are Homebound

STLT health agencies must develop and implement plans to provide vaccinations for the homebound that ensure the vaccine is accessible for all. Such efforts should rely on the relevant state and local data regarding those who have been vaccinated. Strategies to vaccinate people who are homebound need to consider the race and ethnicity of the homebound population and plan for special program attributes (e.g., language fluency, to meet the needs of the identified group).

States should increase data collection and reporting for communities of color to address and respond to disparities in homebound vaccine allocation, vaccine hesitancy, and uptake at the local level. Forty-eight states and Washington, D.C. currently collect and share vaccination data to varying degrees in publicly available data dashboards.¹⁴ However, in many instances, data on race and ethnicity are either limited or not reported at all. When STLT health agencies include race and ethnicity data in COVID-19 vaccine registries, it can improve data collection and responsive action to ensure all communities are included in the vaccine effort. Even where administratively challenging, the information gained is critical to ensuring that existing

disparities are not further exacerbated by the vaccination process. Data collection efforts should explain why individual demographic data are needed and how they will be used and protected.

In making arrangements to vaccinate the population, STLT health departments should identify vaccinators and agencies that represent the characteristics of and have a trusted relationship with the population, particularly with regard to race, ethnicity, and languages spoken. If certain populations are under-represented in the vaccination administration process, steps should be quickly taken to improve representation. To lessen the likelihood of inequitable access, STLT health departments should seek vaccinators who have a track record of respectfully serving the under-represented population. In some cases, vaccinators may need training in the history, cultures, and traditions of those they are serving. In other cases, vaccinators can be paired with representatives of community-based organizations that have existing relationships with people who are homebound.

Once trends in disparities are identified, states can respond by prioritizing vaccine supply, put plans in place to bring the vaccine to those who cannot travel, scheduling mobile pop-up clinics in pockets of need for those with less limited mobility, facilitating vaccination outreach in high-priority zip codes, and tailoring messaging to preemptively address vaccine hesitancy.

Recommendation 3: Guarantee equitable vaccine access to homebound persons and ensure that none are underserved due to race, ethnicity, age, socioeconomic status, urban or rural locations, or other factors.

Lead Agencies/Partners: CMS, CDC, STLT government, STLT health agencies, community partners, and private payors

Innovations in Practice:

- Santa Clarita County, California has observed lower vaccination rates in Latinx and Black communities due in part to vaccine misinformation that drives vaccine hesitancy. To correct misinformation and increase vaccine confidence, Santa Clarita County created a campaign to promote vaccines in communities of color. Up to 130 full-time bilingual outreach staff will visit residents in San Jose and other areas with comparatively low rates of vaccine uptake.¹⁵
- The Indian Health Service has had great success utilizing local tribal healthcare providers and elders to deliver public service messages about vaccine importance and safety. Including people who are Native language speakers may help to reassure residents that the messenger share's their experience and perspective. When surveyed, 74 percent of Native people responded that they saw vaccination as a responsibility to their community and 75 percent were willing to receive a vaccine.¹⁶

Collect and Utilize Data to Ensure Equitable Access

State governments and health departments should leverage multiple data sources to improve equitable vaccine allocation and distribution, assess homebound provider capacity, track supply inventories, and monitor coverage. Data use and sharing agreements between STLT health departments, aging and adult services agencies, and state Immunization Information Systems (IIS) can support allocation decisions, if such systems include data on people who are homebound. The results of these analyses should be communicated clearly to all involved parties to inform evolving guidance. Medicare/Medicaid service information (e.g., people who receive routine oxygen deliveries, in-home healthcare providers, meals on wheels programs, and transportation services), could also be used to determine potentially eligible homebound persons. Review of homebound service rosters is likely to be necessary to avoid duplication.

Recommendation 4: Work with public and private sector partners to select a range of data sources to identify the homebound population while respecting privacy rights. Adapt existing data use and sharing agreements to rapidly assess vaccination patterns, identify pockets of under-vaccination, and assist in ensuring equitable vaccine resource allocation.

Lead agency/group: STLT government, STLT health agencies

Innovations in Practice:

- Arizona, Vermont, and Washington incorporate a social vulnerability index to embed equity into resource allocation decisions. This index uses census-level variables including socioeconomic determinants, household composition and disability, race and ethnicity, language, and housing type.¹⁷
- In Michigan, client-level data was pulled from integrated care organizations and the aging network to identify individuals who are homebound.
- Area Agencies of Aging can support efforts to identify homebound or hard-to-reach older adults via their client rosters.
- Meals on Wheels in San Antonio has been sharing their list of homebound residents with the local fire department, which is providing vaccinators for home-based administration.¹⁸

Proactively Register People Who Are Homebound for Vaccination

While the recent increase in vaccine supply has improved overall vaccine availability, ensuring access for the “invisible” homebound will continue to be a challenge. With a defined, consistent, and inclusive homebound definition in hand, local health officials can begin proactively screening and registering eligible individuals into vaccine appointments scheduling systems. STLT and federal agencies should coordinate and promote information through multiple

channels, to help ensure necessary information on registering, scheduling, and vaccine education reaches the homebound.

Information on the COVID-19 vaccine must be accessible to all individuals who are homebound and their caregivers including being available in multiple languages and accessible to people living with disabilities. STLT health departments should ensure that agencies currently serving this population have up-to-date and accurate information including materials that address concerns related to vaccine hesitancy. Multiple ways to schedule home visits to administer the vaccine will be needed. Online methods alone are insufficient. Technology and internet access may be limited or nonexistent in lower-income households, extremely rural areas, and some urban areas, and may be unfamiliar to older individuals. For individuals who are disabled, communications must meet the necessary requirements of the Rehabilitation Act of 1973, Americans with Disabilities Act, and Plain Language Act (recommendations include braille, closed-caption elements, ALT text accessible with document readers, and easy-to-read materials with large text and visual cues to convey information).^{19,20} Personalized outreach to homebound individuals and their caregivers may be necessary by telephone or in-person such as when providing a home visit or while delivering a meal. Those who are homebound and/or their caregivers should also have the opportunity to initiate a request and/or schedule a home-based vaccination by telephone.

UW Home-Based Primary Care Focuses on Equitable Vaccinations

The University of Wisconsin and UW Health Home-Based Primary Care is meeting the vaccination needs of its homebound patient population with innovative in-home delivery mechanisms, non-traditional partnerships, and real-time evaluation of policy. Program leaders report that a key challenge to ensuring equitable vaccination for people who are homebound is identifying that population. In partnership with a skilled home health agency, UW Health Care Direct, Home-Based Primary Care has developed its own definition of completely homebound individuals among patients on its primary care panel as "patients who are bedbound or require assistance from two or more people in order to leave the home."

UW Home-Based Primary Care determined that 25 percent of its patients meet this definition. Vaccinations are delivered by a home health agency partner, UW Health Care Direct, using geo-mapping software to map out routes for the most efficient delivery planning. UW Health has now partnered with Dane County's Aging and Disability Resource Center (ADRC) to deliver in-home vaccinations to anyone referred to the county ADRC, making in-home vaccinations available to anyone in the county who meets the criteria. Eligibility includes homebound residents and their caregivers (18 and older) who:

- Live in their own home.
- Are eligible to receive the vaccine.
- Are NOT connected to a long-term care program.
- Meet the homebound definition of:
 - Individuals with limited mobility such that one person cannot assist them out of the home.
 - Individuals who depend on oxygen or non-portable equipment that impacts their ability to leave home.

- Individuals with dementia or cognitive impairment that impacts their ability to leave home.
- Individuals who are otherwise frail which impacts their ability to leave home.

Despite these ambitious plans, the UW Home-Based Primary Care team recognizes the many hurdles to reaching the states' homebound population. There is no statewide resource to connect those who may need in-home vaccinations to providers who can administer the vaccines and communications networks don't always exist.

In-home vaccine administration is also an opportunity to vaccinate caregivers. The State of Wisconsin has addressed this by including unpaid and self-employed caregivers in vaccine priority groups. However, these caregivers may not know that they qualify for vaccination and may not be able to leave their homebound family member unattended to travel to a vaccination site. Including vaccinations for caregivers in the homebound vaccine delivery plan addresses this gap in access for caregivers, lessens COVID transmission risk to the homebound patient, and is an effective way to ensure all doses in open vials are used during the six-hour window of viability.

Recommendation 5: Develop and actively promote multiple communication channels for vaccine registration and scheduling, to ensure ease of interaction with those who are homebound and/or their caregivers, including the use of channels that minimize reliance on computers and internet access.

Lead Agencies/Groups: STLT government, STLT health agencies, community partners

Innovations in Practice:

- Massachusetts statewide homebound vaccination program, through a collaboration with local Boards of Health and a managed care organization, Commonwealth Care Alliance, manages intake from multiple sources through a central telephone-based in-take line. Through this central intake line, common criteria are used to provide assistance to people who need help getting to a vaccination center, i.e. transportation.
- The Baton Rouge Council on Aging worked to address the lack of internet access among senior residents by arranging call centers and in-person visits to proactively register residents and answer questions. Where vaccination rates are low, door-to-door efforts are underway in collaboration with local organizations.
- Risk education, a highly scalable and cost-effective approach, may help to reduce vaccine hesitancy. According to a recent analysis from BellAge, most adults (77 percent) dangerously underestimate the lethal threat risk that exposure to COVID-19 poses to older adults.²¹ After being informed about lethal threat risks, more than half (58 percent) of respondents note they would modify their behaviors to keep older friends and loved ones safe. Similarly, 53 percent of adults over the age of 75 underestimate their risks of hospitalization and death from COVID-19. Risk education can save lives and this approach should be leveraged by policymakers and entities developing vaccine messaging.

Develop Flexible and Creative Vaccine Allocation Plans

Flexibility and creativity in vaccine distribution and administration planning can help ensure that vaccine equity is treated with equal importance to process efficiency, thereby ensuring that people who are homebound are vaccinated. STLT departments should develop and follow vaccine allocation strategies that are transparent, consistent, and reflect input from multidisciplinary stakeholders including people who are homebound and their caregivers.²²

For areas with logistical issues, each vaccine's cold storage requirements will need to be considered. STLT health departments should develop protocols for how to avoid wasting leftover doses, such as vaccinating a member of the household or visiting an independent living facility.

In some instances, vaccination vans or pop-up sites may prove useful, when, for example, multiple homebound individuals live in an apartment complex. In frontier or rural settings, EMTs and paramedics (including those based within the fire department) may be engaged to reach those located long distances from each other. In February 2021, the [CDC released guidance](#) on storage and handling before and during transport to homebound persons.²³

Recommendation 6: While prioritizing safety, encourage and allow flexibility and creativity in ways to reach people who are homebound, determine which vaccines to offer, engage all parties involved in the vaccination process — from planners and administrators to vaccinators and people being vaccinated and their caregivers, and utilize effective means of ensuring access.

Lead Agencies/groups: CDC, STLT government, STLT health agencies, Community Partners

Innovations in Practice:

- A Wisconsin Home-Based Primary Care (HBPC) program is leveraging dispatch software to map out routes for home delivery. There are a variety of existing software options that can be utilized, such as geo-mapping software like ZeeMaps.²⁴ Additional creative solutions, including geo-mapping, can be leveraged to group patients into geographic clusters, ensuring that vaccines are utilized within appropriate timeframes. See the full case example on page 14.
- To reach remote rural areas and farmlands, an Oregon organization is collaborating with dental vans,²⁵ as well as faith-based and community-based organizations. The dental vans operate as mobile vaccine clinics while the faith and community leaders operate as trusted entities to promote vaccine acceptance. Those with limited mobility who can leave their homes without considerable effort can be referred to mobile clinics, which do not pose the daunting challenges of long wait times at mass distribution sites or transportation challenges.

Leverage Existing Trusted Relationships

A rich network of organizations currently serves a significant percentage of the homebound population. This network includes managed care organizations, area agencies on aging, visiting nurse associations, meals-on-wheels programs and faith-based volunteer organizations. Such organizations should play a central role in ensuring that vaccinations are available to people who are homebound. Often, they are aware of who has difficulty leaving their home; understand the health, familial, and cultural conditions in the home; and, importantly, have the trust of the homebound individual and their caregivers. STLT health departments across the country should work in partnership with those in this network. In many instances it may also make sense to utilize these organizations to administer vaccinations if trained and authorized to do so.

Communities of color and individuals who are disabled often hold generational and intergenerational trauma.²⁶ Coupled with current events, these experiences contribute to mistrust and vaccine hesitancy, which can exacerbate existing health disparities. At TFAH's March national convening, *Building Trust in and Access to a COVID-19 Vaccine Among People of Color and Tribal Nations*, [experts produced recommendations](#) on how to build vaccine confidence in communities of color and Tribal Nations. The CDC has released a [communication toolkit](#) that clinics, pharmacies, and clinicians can use or adapt to build confidence about COVID-19 vaccines.²⁷

Recommendation 7: Leverage partnerships and establish new ones with public and private sector organizations that already serve the homebound to ensure equitable and efficient vaccine distribution, promote vaccine messaging by trusted community leaders and potentially expand the pool of skilled vaccinators.

Lead Agencies/groups: CDC, STLT government, STLT health agencies, community partners

Innovations in Practice:

- Cook County (Illinois) Department of Public Health and the Chicago Department of Public Health are partnering with local housing authorities to provide vaccinations at buildings that house older adults. They are also partnering with Walgreens as the vaccine delivery partner.²⁸ This non-traditional partnership pools resources to ensure equitable and efficient vaccine distribution.
- Massachusetts prioritized residents of low income and affordable senior housing early in its vaccine rollout. Leveraging relationships with retail pharmacies, local boards of health and health providers, public and private affordable senior properties held on-site vaccination clinics for their residents and staff in nearly 200 communities. In some cases, vaccinators went apartment to apartment to meet the needs of the frailest residents.

- Louisiana is using vaccination data to identify communities that need targeted outreach. In Baton Rouge, Louisiana, the local health department is working with trusted community partners such as local churches, Black state lawmakers, the mayor, and local supermarkets to promote vaccine education and uptake.²⁹
- Indiana’s Homebound Hoosier initiative links available vaccine from hospitals and local health departments with homebound Hoosiers who are non-ambulatory or unable to travel to fixed vaccination sites.³⁰ Emergency medical services help to obtain doses, travel to the individuals’ residences, administer the vaccine, monitoring for and treating reactions, and returning the appropriate documentation to the vaccine providing entity.
- America’s Health Insurance Plans (AHIP) and the Blue Cross Blue Shield Association (BCBSA) are joining forces with the White House to boost access to vaccinations for seniors and vulnerable populations, including people who are homebound. The two payer industry groups are joining the Biden administration’s Vaccine Community Connectors pilot program, which aims to utilize mobile vans to ensure vaccine access for 2 million seniors in vulnerable communities, including Black and Hispanic communities and homebound persons.³¹

Planning a Comprehensive Homebound Vaccination Program

Public Health – Seattle & King County (PHSKC) is implementing an in-home vaccination program for the estimated 2,000 to 4,000 individuals in the county who are homebound.

As the program was developed, PHSKC identified five key steps to reach people at home for vaccinations, discussed in further detail below:

- 1) Define eligibility for in-home vaccination.
- 2) Work with community partners to generate demand.
- 3) Identify vaccinators and pilot delivery protocols.
- 4) Develop capacity to screen, appoint, dispatch, and report.
- 5) Ensure ongoing capacity for routine immunization.

PHSKC’s current eligibility criteria for in-home vaccinations includes people age 16 and above who have not yet been vaccinated and have an injury, developmental disability or medical condition that makes it difficult to leave the home and for whom doing so would require considerable and taxing effort. PHSKC is making every effort to vaccinate caregivers along with homebound individuals.

A list of people who need to be served by in-home vaccinations has been developed through relationships with community partners. The initial list was created in coordination with the King County aging network, Meals on Wheels and Chicken Soup Brigade providers, the Alzheimer’s Association, local Fire Departments, as well as individuals contacting the health department to request home vaccinations. The next phase was curating the list from primary care organizations, managed care organization referrals and names from state agency partners. PHSKC is duplicating those lists and determining who is eligible. Finally, PHSKC will publicize the service to the community once the systems are tested and have more doses available.

In preparation for the in-home vaccination program, PHSKC has identified potential vaccinators. Governor Jay Inslee has allowed exceptions to regulations for vaccinators, such as fire department

staff, EMS and retired formerly certified vaccinators,³² allowing for more flexibility. PHSKC has not had success planning home vaccinations using volunteer vaccinators, home care professionals, or the public health reserve corps as vaccinators. At this time, fire departments, public health nurses, pharmacies, and health systems will provide most home vaccinations.

Screening and scheduling appointments for individuals who may have need for in-home vaccination is time intensive and is managed in part by the local Area Agency on Aging. This process is phone-based through city and county phone lines to serve people without digital access. The program team has found that the screening process is most successful when done by someone who has an existing relationship with the client.

In addition to building up an in-home vaccine distribution workforce and infrastructure to meet the current needs of the COVID-19 emergency response, PHSKC is considering how these new approaches can be utilized after the emergency needs of the pandemic are met. PHSKC wants to explore how the in-home vaccination program can be incorporated into routine care.

Expand and Diversify the Vaccinator Pool

Home-based vaccinators require the clinical skills, knowledge, and understanding of homebound-specific protocols to safely administer COVID-19 injections, including counseling, record keeping, and adverse event monitoring and response.

A large workforce of dedicated vaccinators currently exists through the country's cadre of visiting nurse associations, home health agencies, and home visiting medical practices. Finding among these professionals people who reflect the race, ethnicity, spoken language, and culture of the homebound person and their community can help to reassure people being vaccinated and should be a priority. Collaborating with and empowering skilled professionals as a scalable workforce already trusted by individuals who are homebound is a powerful tool for delivering home-based vaccinations.

The pool of vaccinators can also be expanded by looking beyond home health organizations, while still ensuring those vaccinators are trusted professionals. Under the Readiness and Emergency Preparedness Act, the Biden administration issued³³ an executive order to expand the pool of potential vaccinators to include dentists, advanced and intermediate Emergency Medical Technicians, Midwives, Optometrists, Paramedics, Physician Assistants, Podiatrists, Respiratory Therapists, and Veterinarians, as well as medical students, nursing students, and other healthcare students along with the previously listed professions.³⁴ Appropriate training and supervision of these individuals is required, with particular attention to those who will be administering vaccines in the home. Such training may cover such topics as dealing with adverse reactions to the vaccine, working with people who have visual or auditory impairments, working in the

presence of service animals, and effectively interacting with patients with other cognitive, social, physical, or sensory needs.

Recommendation 8: Ensure that, to the greatest degree possible, in-home vaccination teams include people who are trusted by those being vaccinated and represent the diversity of the population being served.

Lead agencies/groups: CDC, community partners, STLT health agencies

Innovations in Practice:

- Webster County Health Department in Iowa is bringing retired nurses back into the workforce to vaccinate homebound residents.³⁵
- South Carolina is piloting a homebound vaccine delivery program in two largely rural counties. The local health departments are partnering with a hospice service provider so that hospice nurses can provide in-home vaccines.³⁶
- A state-wide Texas program called ‘Save Our Seniors’ is deploying more than 1,100 National Guard troops across the state to vaccinate people in their homes. The guardsmen are deployed in teams across the state. Some will focus on identifying and registering homebound seniors for the program while others will visit homes and administer vaccines. They dedicated up to 8,000 vaccines to this initiative for the first week and are working with organizations like Meals on Wheels and nursing groups to identify homebound seniors who wish to be vaccinated.³⁷

Reimburse for Homebound Vaccination Delivery

Sending skilled vaccinators to individual homes is more expensive than providing such services in a mass vaccination clinic due to travel time and the need for a higher level of health service delivery needs. For the first few months of vaccine availability, existing billing codes reimbursed only \$17 to \$28 of providers’ costs for vaccinating homebound persons. On March 15, 2021, Medicare payments for COVID-19 vaccines jumped from \$40 to \$80.³⁸ However, the cost per homebound vaccination is approximately \$125.³⁹ Home-based care providers are willing to vaccinate at-home individuals, but without full coverage, this practice is not economically feasible.

Non-vaccine related home-based services are often covered through CMS. Federal, state, and local governments could ensure coverage of all homebound vaccination costs through both public and private methods. CMS could pay home care providers for vaccine administration using the same payment mechanisms that support other existing home care services. CMS has, to date, not specified that a visit by a home health nurse for vaccine administration is a covered service under Medicare.

Current CMS guidance implies that all services related to the COVID-19 vaccines are bundled into the vaccine administration fee; however, many providers of home-based care maintain that it is not economically feasible for home-based care which requires additional time, travel, and resources. CMS has not specified whether a physician or provider billing Medicare Part B under their own National Provider Identifier (NPI) using home visit evaluation and management (E/M) codes may bill for a time-based E/M code in conjunction with the vaccine administration code even if the only service provided is vaccination.

An alternative way to cover the cost of home-based vaccination is through the use of funding from already enacted Congressional relief packages. STLT health departments should consider contracting with and covering the costs incurred by organizations providing such vaccinations so they are less dependent on third-party billing. States may negotiate supplemental capitation payments or rate increases associated with COVID-19.

Recommendation 9: Ensure coverage of all homebound vaccination costs, including administrative costs and the costs associated with transportation and observational time.

Lead agencies/partners: CMS, private payers

Innovations in Practice:

- Massachusetts recently initiated a statewide homebound vaccination program under which reimbursement is twice that of Medicare’s current rate, which has helped to engage providers and local boards of health in vaccination efforts. The state has determined that contracted providers will be paid by Commonwealth Care Alliance (CCA) with a rate that is fully loaded to cover transportation costs with all required supplies provided by CCA. The first vaccination provided in a household is reimbursed at \$100; each additional vaccination provided in the household at the same visit is reimbursed at \$20.40
- The Indiana Health Coverage Programs (IHCP⁴¹) is reimbursing EMS provider agencies for administering vaccines as part of the Homebound Hoosier EMS Vaccine Administration Program. EMS provider agencies bill using the diagnosis code Z23 – Encounter for immunization and applicable procedure codes (90471-90474). Some fire departments and EMTs have requested reimbursement from FEMA, citing the pandemic as an emergency.⁴²
- In Colorado, the state formed a partnership with Bloom Healthcare (a home-based primary care provider group serving 13 counties) to provide home-based vaccinations across the state. See full case example on page 22.

Bloom Healthcare Executing a Homebound Vaccination Program

Bloom Healthcare (Bloom) has provided primary care at home to people living in 10 Colorado counties for close to 20 years. Since December 2020, Bloom has administered over 7,000 doses of the COVID-19 vaccine to individuals who are homebound and is a partner for state and local vaccine distribution efforts.

Bloom has developed a unique combination of personnel, resources, data, and operational systems over two decades delivering primary care in the home that translate well to distributing vaccines in the home. In addition, Bloom began planning how they would reach their homebound patients early, during the summer of 2020. In September 2020, Bloom purchased freezers for vaccine storage. They were allocated 50 doses of the Pfizer vaccine from the state during the first distribution in early December. Bloom first identified and vaccinated their existing patients then expanded to serve other populations, including people living in congregant settings.

This early success — during a time in which even hospitals struggled to get vaccines in arms — led the state to view Bloom as a valuable ally in the vaccination efforts. Within the first few months of vaccine roll outs, the state turned to Bloom to solve a larger problem: how to vaccinate *all* homebound residents statewide.

Dr. Thomas Lally, Founder and CEO of Bloom describes, “The Colorado Department of Public Health and the Environment (CDPHE) asked for our help to vaccinate every homebound patient in Colorado. They didn’t necessarily know what that meant and neither did we, but we worked diligently and collaboratively to begin to scope the problem and propose a solution that would meet the state’s needs.” As this report was being released, Bloom was in the midst of project scoping including funding, patient identification, staffing, and reviewing speed-to-market barriers.

Bloom and the CDPHE are working to identify the homebound population via community partnerships and common data sources, including rosters from home health agencies, Meals on Wheels, Area Agencies on Aging, hospice and palliative care organizations, and county-held lists of those in need. Bloom anticipates staffing, training, and supporting 30 clinicians across 12 Colorado counties — an effort that will cover over 200 miles and 85 percent of the state’s overall population. Bloom anticipates vaccinating 20,000 homebound residents in seven months and is prepared to expand that reach as the need demands.

Conclusion

The COVID-19 pandemic has illuminated a longstanding disparity — a relative neglect of the populations that have the greatest need for the most frequent care, yet often face the steepest challenges in accessing care.⁴³ While many Americans have options when identifying where to access the COVID-19 vaccine, this is not true for people who are homebound. Therefore, public health agencies and their partners who allocate and distribute vaccines bear an extra responsibility for safeguarding this population’s health. Vaccine distribution equity must be prioritized and government and non-governmental partners must work together to create the

infrastructure to achieve this goal, some leveraged from existing resources, some created entirely anew.

The accelerating pace at which vaccine supplies are growing makes strategic vaccine distribution critical and possible, with an emphasis needed on efficient, equitable vaccine distribution to all people who are homebound. This can be achieved by establishing and nurturing non-traditional distribution partnerships to share information, pool strengths, surface economies, and respond flexibly.

Homebound populations are often intersectional and experience barriers based on multiple factors including age, disability, socioeconomic status, race, ethnicity, limited English proficiency, and geographic location. Responsible agencies must monitor progress toward true vaccine equity over the coming months and will need to continue to work toward optimizing vaccine delivery programs and ensuring that existing health disparities are not exacerbated.

Furthermore, vaccine messaging must be focused on building the trust of the homebound population. If health equity, community trust, and vaccine hesitancy are not appropriately addressed, the health of people who are homebound will be negatively affected. Increasing understanding of the homebound population, fostering communications and trust with them and building connections between agencies that serve them will not only save lives now — but will create an improved infrastructure to meet the needs of the homebound population during future public health emergencies.

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Trust for America's Health (TFAH) is a nonprofit, nonpartisan public health policy, research, and advocacy organization that promotes optimal health for every person and community, and that makes the prevention of illness and injury a national priority.

Methodology

To understand the unique challenges of COVID-19 vaccine accessibility for those who are homebound, and propose well-informed solutions to those challenges, Trust for America's Health (TFAH) conducted 18 interviews with key stakeholders from diverse disciplines; reviewed emergent literature, articles, trends, and social media activity; and convened leaders and key informants from public and private agencies and organizations. National convenings in February and March 2021 were designed to identify innovative and actionable strategies for policymakers and that could be replicated in other communities. The convenings included 38 experts in home-based primary care, vaccine delivery, community engagement and advocacy, public health, and health equity (see Acknowledgements).

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Endnotes

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