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## SUCCESSES AND LESSONS LEARNED IN VACCINATING HIGH-RISK PEOPLE AT HOME

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**NATIONAL ADULT AND INFLUENZA IMMUNIZATION SUMMIT**

**APRIL 22, 2021**

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## DISCLOSURES

- I have no relevant conflicts of interest to disclose.



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## OBJECTIVES

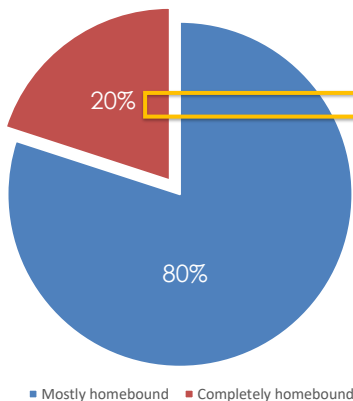
- Describe the successes of the Program for All-Inclusive Care of the Elderly (PACE) in COVID vaccination
- Highlight difficulties and lessons learned in vaccinating high-risk people at home - including especially older adults and the unbefriended
- Present post-pandemic recommendations regarding vaccine allocation and distribution



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## CHARACTERISTICS OF HOMEBOUND OLDER ADULTS

2 million homebound older adults in the U.S.



Among the 20% who are completely homebound:

- 70% report their health as "fair" or "poor"
- Only 11.9% receive home-based primary care (HBPC)
- More likely than non-homebound older adults to belong to a disadvantaged group, have lower education and income, have more chronic conditions, and be hospitalized



Ornstein KA et al. JAMA Intern Med 2011.

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# What is PACE?

## Program of **All-Inclusive Care for the Elderly**

An integrated system of care for the frail elderly that is:

- Community-based
- Comprehensive
- Capitated
- Coordinated



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## The PACE Model **Philosophy**

Honors what frail elders want

- To stay in familiar surroundings
- To maintain autonomy
- To maintain a maximum level of physical, social, and cognitive function



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## The PACE Model

# Who Does It Serve?

- 55 years of age or older
- Living in a PACE service area
- Certified as needing nursing home care
- Able to live safely in the community with the services of the PACE program at the time of enrollment



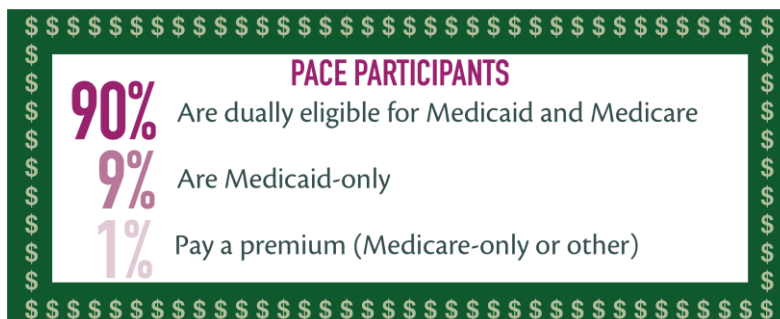
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# Capitated, Pooled Financing

- Medicare capitation rate adjusted for the frailty of the PACE enrollees
- Integration of Medicare, Medicaid and private pay payments



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# Integrated Service Delivery and Team Managed Care



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## The PACE Model

# Services Provided











- nursing
- physical therapy
- occupational therapy
- recreational therapy
- meals
- nutritional counseling
- social work
- medical care
- home health care
- personal care
- prescription drugs
- social services
- audiology
- dentistry
- optometry
- podiatry
- speech therapy
- respite care

**Hospital and nursing home care when necessary**



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# Milestones in the PACE Model History

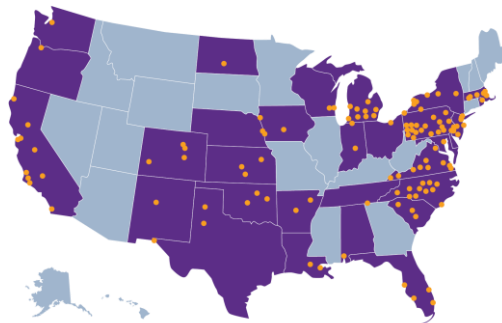
<p>1986</p>  <p>Legislation authorizing PACE Demonstration</p>	<p>1990</p>  <p>First demonstration sites operational</p>	<p>1997</p>  <p>Congress authorizes permanent provider status</p>	<p>1999</p>  <p>Publication of interim final PACE regulations</p>
<p>2001</p>  <p>First program achieves permanent PACE provider status</p>	<p>2002</p>  <p>Publication of 2<sup>nd</sup> interim final PACE regulations enhancing opportunity for program flexibility</p>	<p>2006</p>  <p>Final PACE rule</p>	<p>2014</p>  <p>Reached first 100 PACE programs</p>
<p>2015</p>  <p>PACE Innovation Act is signed into law</p>	<p>2016</p>  <p>CMS issues proposed PACE rule</p>	<p><b>2019</b> New PACE Regulation</p>	



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# Status of PACE Development

(as of April 2021)



30 states have PACE programs

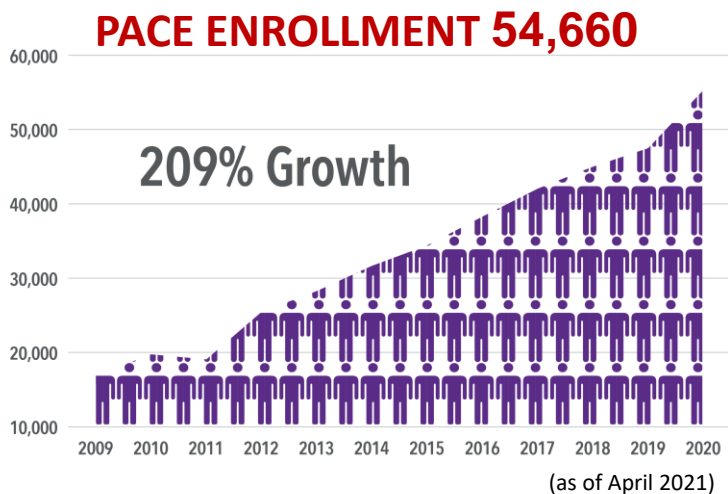
**138** Sponsoring Organizations  
**272** PACE Centers  
as of April 2021



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## National Census Growth

2009 – 2021



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## NPA SURVEY OF PACE ORGANIZATIONS ON COVID VACCINATION: APRIL 2021

- 70 of 119 PACE member organizations responded
  - 71% of the 11 PACE participants received at least 1 dose
    - Lower % than all U.S. older adults receiving 1 dose (80%), but still impressive given the PACE population, of whom most have cognitive and functional impairment
  - 2/3 of PACE organizations vaccinated >50% of their staff



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## PACE APPROACH TO COVID VACCINATION

- **PACE as vaccinator**

- At PACE centers (including vaccination of non-PACE community members)
  - PACE does not collect data on caregivers receiving vaccinations
- At PACE members' homes (less common based on anecdotal reports)

- **PACE as a connector to other vaccinators**

- At PACE members' assisted living facilities
- At community sites not affiliated with PACE (e.g. pharmacies)
- Involves intensive collaboration with state and local health officials, National Guard, community hospitals, FQHCs, and pharmacies



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## PACE APPROACH TO COVID VACCINATION: KEYS TO SUCCESS

- **Personal approach to addressing vaccine hesitancy**

- 1-on-1 conversations between PACE staff, participants, and their caregivers
- PACE staff share their personal vaccination experiences
- Surveys of PACE participants and their caregivers
- Virtual town hall meetings

- **Advance planning**

- Vaccine materials provided in various languages prior to vaccine availability



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# LOGISTICAL BARRIERS IN VACCINATING HOMEBOUND OLDER ADULTS



[Alaska COVID-19 Vaccine Rollout Requires Planes, Sleds, Snow Machines - NPR](#)



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# LOGISTICAL BARRIERS TO VACCINATING HOMEBOUND OLDER ADULTS - 1

- Geographic dispersion and 6 hour limit leads to time pressure
  - Need for careful planning of travel routes
  - Little time to answer patient questions about vaccination



Kevin Abraham, left, and Leonard Richardson, with coronavirus vaccine to administer to Doris and Erna themselves in Long

[How to Vaccinate Homebound Seniors? Take the Shots to Them. - The New York Times \(nytimes.com\)](#)



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## LOGISTICAL BARRIERS TO VACCINATING HOMEBOUND OLDER ADULTS - 2

- **Difficulties in identifying homebound older adults**
  - May interact with health care system infrequently, or not at all
  - Unlikely to already be receiving home-based primary care
- **Competition for vaccine within health systems\***
  - Health systems may be concerned that vaccinating homebound older adults may increase risk of wasting vaccine
  - Pressure on house call practices to vaccinate “relatively homebound” primary care patients



Dr. Won Lee (personal communication)

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## UNBEFRIENDED OLDER ADULTS: DEFINITION

- (1) Lack decisional capacity** to provide informed consent to the medical treatment at hand.
- (2) Have not executed an advance directive** and lack the capacity to do so
- (3) Lack family, friends, or a legally authorized surrogate** to assist in the medical decision-making process



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## PREVALENCE OF UNBEFRIENDED PATIENTS IN HEALTHCARE SETTINGS

- 16% prevalence in the intensive care unit\*
- 4% prevalence in long term care†
- Unknown prevalence in primary care

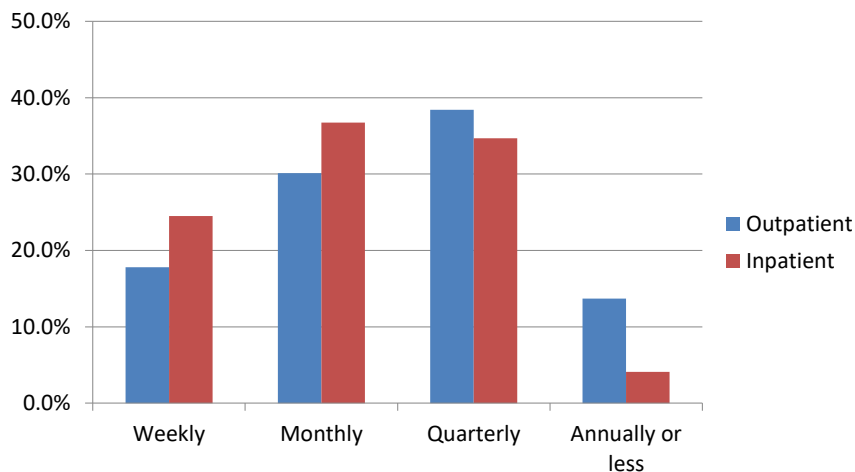
**Baby Boomers are at high risk of becoming unbefriended since >10 million live alone, and 20% are childless.‡**

\*White DB. Crit Care Med 2006.  
†American Bar Association 2004.  
‡AARP, 2016.



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## CLINICIAN ENCOUNTERS WITH THE UNBEFRIENDED



Farrell TW et al. Clin Gerontol 2019.



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## BARRIERS IN DISTRIBUTING VACCINE TO THE UNBEFRIENDED

- Difficult to identify and contact
- Cognitive impairment
- Lack of Internet access
- Lack of caregivers to assist with online registration
- Lack of transportation to vaccination sites
- Homelessness



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## VACCINE DISTRIBUTION TO HOMEBOUND OLDER ADULTS: LESSONS LEARNED



Geriatrician Megan Young, left, offers support to Edouard Joseph, 91, moments after giving him a COVID-19 vaccination at his home in the Mattapan neighborhood of Boston. (AP Photo/Steven Senne)

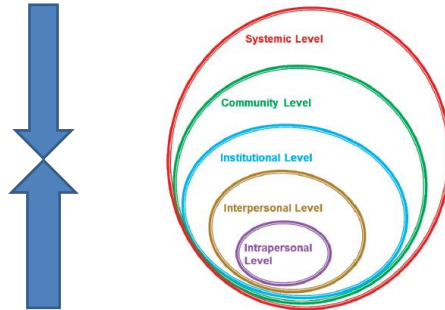
[Doctors race to find, vaccinate vulnerable homebound people - Los Angeles Times \(latimes.com\)](https://www.latimes.com)



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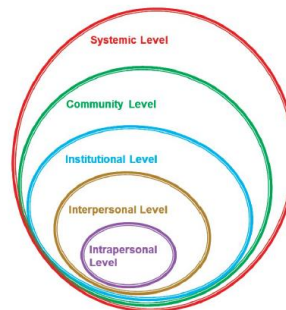
# VACCINE DISTRIBUTION TO HOMEBOUND OLDER ADULTS: LESSONS LEARNED - 1

- Top-down (federal, state) and bottom-up (local) approaches are both needed



# VACCINE DISTRIBUTION TO HOMEBOUND OLDER ADULTS: LESSONS LEARNED - 2

- A more streamlined approach would be beneficial to overcome problems with fragmentation and inadequate coordination of services.



## VACCINE DISTRIBUTION TO HOMEBOUND OLDER ADULTS: LESSONS LEARNED - 3

- Existing public health infrastructure should be leveraged
- Technology is important, but dialogue with patients and caregivers is equally or more important
- Advance preparation is critical
  - 3 to 4 week lead time is often needed

## VACCINE ALLOCATION AND DISTRIBUTION: POST-PANDEMIC RECOMMENDATIONS

**The New York Times**

*What Will Your 'After' Look Like?*

## RECOMMENDATION #1: CONDUCT POST-PANDEMIC VACCINE ALLOCATION REVIEWS

	Recommendation	Rationale
1	Review outcomes of resource allocation strategies that were actually implemented.	<i>Unjust resource allocation strategies could persist beyond COVID.</i>
2	Review resource allocation strategies for discriminatory provisions.	<i>Age-based cutoffs could exacerbate extant ageism.</i>
3	Implement ethical resource allocation strategies in health care facilities and systems where none exist.	<i>Ad hoc approaches will be unjust, and will burden front-line clinicians.</i>



Farrell TW et al. AGS position statement: Resource allocation strategies and age-related considerations in the COVID-19 era and beyond. J Am Geriatr Soc 2020; 68(6): 1136-42.

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## RECOMMENDATION #2: MAINTAIN THE SPOTLIGHT ON HOMEBOUND OLDER ADULTS

- **Community engagement**
  - Short term: Engage with community leaders to promote vaccine acceptance
  - Long term: Sustain community partnerships to facilitate cross-generational understanding
- **Services for homebound older adults**
  - Short term: Vaccinate 2 million homebound older adults
  - Long term: Address ongoing needs that will matter in the next pandemic:
    - E.g. decisional capacity assessment and guardianship, caregiving, transportation, expanding HBPC



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# VACCINATING HOMEBOUND OLDER ADULTS: SUMMARY

- **PACE provides a successful model for vaccinating homebound older adults**
- **Lessons learned across the US:**
  - Plan ahead, plan ahead, plan ahead
  - Increase home-based primary care (HBPC)
  - Engage with community leaders to complement state and federal efforts
  - Complement high-tech with high-touch
  - Effectively coordinate services to avoid gaps and redundancies
  - *Meeting the ongoing needs of homebound older adults helps prepare for the next pandemic*
- **Post-pandemic reviews of vaccine resource allocation strategies should occur in order to prevent perpetuating inequities**



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