



FOSTERING INNOVATION TO SUPPORT OLDER AMERICANS: FEDERAL AGENCY HIGHLIGHTS

June 2020

“Our country could not be anything near where it is without our incredible seniors. We’ll show them the same love and loyalty they’ve shown us and they’ve shown our Nation every day of their lives.”

–President Donald J. Trump

Overview

The number of Americans who are 65 or older is growing rapidly and is expected to grow from 17% to nearly a quarter of the population by 2060.¹ Additionally, over 25% of older Americans living outside of a nursing home aged 65 to 74 and nearly 50% of those aged 75 and older have reported some kind of functional disability, such as problems with vision, hearing, or mobility.²

The Trump Administration has made finding solutions for an aging population a research and development (R&D) priority.³ Acknowledging that technological advancements hold great potential in increasing the well-being and health of older Americans, in March 2019, the White House National Science and Technology Council released, *Emerging Technologies to Support an Aging Population*,⁴ a comprehensive report which served as a guide for both public and private sector R&D.

In April 2020, The White House issued a Presidential Proclamation formally recognizing May as Older Americans Month.⁵ Federal Departments and agencies play key roles in improving the lives of Americans, including older adults who experience challenges related to personal mobility, cognitive changes, loneliness and social isolation, and general health and nutrition.

This document provides a selection of highlights of the significant ongoing and anticipated work that supports our Nation's older adults, including support during the Coronavirus Disease 2019 (COVID-19) pandemic. Note that for most Departments and agencies included here, these highlights represent a small fraction of their overall support in terms of both investment and impact.

Administration for Community Living

The Administration for Community Living (ACL) is an operating division of the Department of Health and Human Services (HHS). ACL was established around the fundamental principle that older adults and people of all ages with disabilities should be able to live where they choose, with the people they choose, and with the ability to participate fully in their communities.

Fostering Research on Independent Living

In March 2020, ACL announced a \$2 million funding opportunity, *Disability and Rehabilitation Research Projects*,⁶ to develop methods, procedures, and rehabilitation technology that maximize the full inclusion and integration into society of people with disabilities, including those who are aging.

Providing Support to Older Adults and People with Disabilities during COVID-19

In April 2020, ACL announced \$955 million in *Coronavirus Aid, Relief, and Economic Security (CARES) Act* grants⁷ to support older adults and people with disabilities, with \$20 million provided to State Long-Term Care Ombudsman to purchase technology and hardware to expand their virtual presence in providing consumer advocacy services to residents of long-term care facilities.

¹ <https://www.census.gov/content/dam/Census/library/publications/2020/demo/p25-1144.pdf>

² https://www.disabilitystatistics.org/StatusReports/2017-PDF/2017-StatusReport_US.pdf

³ <https://www.whitehouse.gov/wp-content/uploads/2018/07/M-18-22.pdf>

⁴ <https://www.whitehouse.gov/wp-content/uploads/2019/03/Emerging-Tech-to-Support-Aging-2019.pdf>

⁵ <https://www.whitehouse.gov/presidential-actions/proclamation-older-americans-month-2020/>

⁶ <https://www.grants.gov/web/grants/view-opportunity.html?oppld=324265>

⁷ <https://www.hhs.gov/about/news/2020/04/21/hhs-announces-nearly-1-billion-cares-act-grants-support-older-adults-people-with-disabilities-community-during-covid-19-emergency.html>

Agency for Healthcare Research and Quality

The Agency for Healthcare Research and Quality (AHRQ) is an operating division of HHS and is the lead Federal agency charged with improving the safety and quality of America's health care system.

Advancing Understanding of Telehealth Delivery in Rural and Ambulatory Settings

AHRQ has funded several grants including for the development and piloting of a scalable intensive care unit recovery intervention to rural-dwelling older adults via telehealth and evaluating the demands placed on first responders and caregivers while providing stroke care in a telemedicine-equipped, ambulance-based setting.

Supporting Applications of Clinical Decision Support Tools for Pain Management

In 2019, AHRQ awarded a grant⁸ to develop a multi-component quality improvement initiative using clinical decision support to reduce potentially inappropriate medication prescriptions written by emergency department providers for older adults at the time of discharge. This initiative has been successfully implemented in eleven Veterans Affairs medical centers and is currently being scaled.

Examining Digital Health Innovations and Telehealth Expansion during COVID-19

In April 2020, AHRQ announced plans to make up to \$5 million in FY 2020 funds available⁹ to examine various topics relevant to COVID-19, including innovations and challenges for the rapid expansion of telemedicine and the role of digital health innovations in meeting the needs of vulnerable populations including older adults, people living with chronic conditions, and rural communities.

Centers for Medicare and Medicaid Services

The Centers for Medicare and Medicaid Services (CMS) is an operating division of HHS and administers the Medicare program and works in partnership with State governments to administer Medicaid, the Children's Health Insurance Program, and health insurance portability standards.

Using Artificial Intelligence-Enabled Solutions to Improve Patient Safety

The *Artificial Intelligence Health Outcomes Challenge*¹⁰ was launched in March 2019 to accelerate development solutions that aid clinicians in predicting health outcomes, keeping patients healthy, and predicting unplanned hospital and skilled nursing facility admissions and adverse events.

Increasing Access and Protections for Older Adults during COVID-19

In March 2020, CMS announced expansion of Medicare telehealth coverage¹¹ enabling beneficiaries to receive a wider range of healthcare services from their doctors at home during the public health emergency. In April 2020, CMS announced \$81 million in *CARES Act* awards¹² to State survey agencies to conduct a focused infection control survey of nursing homes, increase complaint surveys based on COVID-19 trend data reported by nursing homes, and ensure the facilities have infection control systems in place.

⁸ <https://digital.ahrq.gov/ahrq-funded-projects/scaling-equipped-clinical-decision-support>

⁹ <https://www.ahrq.gov/news/funding-opportunities-covid-19.html>

¹⁰ <https://innovation.cms.gov/innovation-models/artificial-intelligence-health-outcomes-challenge>

¹¹ <https://www.cms.gov/newsroom/press-releases/president-trump-expands-telehealth-benefits-medicare-beneficiaries-during-covid-19-outbreak>

¹² <https://www.cms.gov/files/document/cares-act-financial-guidance-state-survey-agencies.pdf>

Department of Transportation

The Department of Transportation's mission is to ensure our Nation has the safest, most efficient and modern transportation system in the world, which improves the quality of life for all American people and communities, from rural to suburban to urban.

Launching the Complete Trip - ITS4US Deployment Program

In October 2019, this \$40 million funding opportunity was announced as part of the *Access and Mobility for All*¹³ initiative. This multimodal technology deployment program is led by the Intelligent Transportation Systems Joint Program Office and supported by the Office of the Secretary, Federal Highway Administration, and Federal Transit Administration (FTA). *Complete Trip* will enable communities to showcase innovative business partnerships, technologies, and practices that expand access to transportation for people with disabilities, older adults, individuals of low income, and other underserved communities.

Enhancing Transportation Technology for Older Adults

The *University Transportation Centers*¹⁴ program conducts research on a variety of issues facing our aging population. Areas of focus include improving the transportation mobility of older and disadvantaged Americans, understanding how older adults react to and accept automated vehicle technologies over time, and how smartphone-based trip planning can aid older adults.

Accelerating Innovative Mobility Initiative

In March 2020, the FTA announced a funding opportunity under the *Accelerating Innovative Mobility*¹⁵ initiative that will provide \$11 million in challenge grants, including for technology and innovation-based projects to increase ridership in rural areas and by underserved populations (e.g., people with disabilities and older adults).

Department of Veterans Affairs

The Department of Veterans Affairs (VA) provides near-comprehensive healthcare services to eligible military Veterans at VA medical centers and outpatient clinics located throughout the country.

Collaborative Aging (In Place) Research Using Technology

Culminating in 2020, the *Collaborative Aging (In Place) Research Using Technology (CART)*¹⁶ is a four-year, \$7 million dollar interagency collaboration between the VA's Office of Research and Development and the National Institute on Aging to design and demonstrate the capability of sensors to monitor health and wellness at home and to assess the needs of older Veterans over time. This project has led to a VA Health Services Research & Development supplemental project analyzing *CART* digital biomarkers of daily activity collected during COVID-19 that are associated with physical and psychological factors.

¹³ <https://www.its.dot.gov/its4us/index.htm>

¹⁴ <https://www.transportation.gov/content/university-transportation-centers>

¹⁵ <https://www.transit.dot.gov/AIM>

¹⁶ <https://grants.nih.gov/grants/guide/rfa-files/rfa-ag-16-021.html>

Advancing Virtual Care Technology Capabilities for Veterans and Caregivers

The VA has been a longstanding early adopter of virtual care technologies to support health care delivery. In April 2020, the VA's Office of Research and Development funded a multi-year *Virtual Care Consortium of Research*¹⁷ to facilitate research that evaluates and improves use of virtual care to enhance the accessibility, capacity, and quality of VA health care and Veteran experience. Rapid pilot projects under this consortium will examine the use of virtual care technologies among older adults and caregivers and how patient-generated data will be integrated into clinical workflow.

The National Artificial Intelligence Institute

The *National Artificial Intelligence Institute (NAII)*¹⁸ was launched in December 2019 to develop artificial intelligence (AI) R&D capabilities in the VA to support Veterans, their families, survivors, and caregivers. The *NAII* will allow the VA to extend and build upon its current work employing AI to reduce Veteran wait times, help interpret patient data, and identify individuals at high-risk for suicide—a critical need given that the absolute number of suicides is highest among Veterans age 55 to 74 years.¹⁹

Health Resources and Services Administration

An operating division of HHS, the Health Resources and Services Administration (HRSA) is the primary Federal agency for improving health care to people who are geographically isolated, economically, or medically vulnerable.

Bolstering the Healthcare Workforce for an Aging Population

In FY 2019, HRSA funded its second cohort of *Geriatric Workforce Enhancement Program (GWEP)*²⁰ grantees across 35 states and two territories. *GWEP* grantees are partnerships between educational institutions and clinical systems working to transform how primary care is delivered to older adults.

Expanding Access to Comprehensive Primary Health Care Services

In September 2019, HRSA provided funding for 77 health centers to establish *New Access Points*,²¹ which are new service delivery sites for improving the health of the Nation's underserved communities and vulnerable populations, including older adults, through expanded access to affordable, accessible, quality, cost effective, and comprehensive primary health care services.

Developing Culturally Competent Models of Care for Older Adults

In July 2020, FY 2020 funding is anticipated for additional *National Health Center Training and Technical Assistance Partners*²² cooperative agreements; approximately 22 awards are expected, including for the *National Center for Equitable Care for Elders*²³ to provide innovative and culturally

¹⁷ https://www.hsrd.research.va.gov/centers/core/virtual_care.cfm

¹⁸ <https://www.research.va.gov/naii/>

¹⁹ https://www.mentalhealth.va.gov/docs/data-sheets/2019/2019_National_Veteran_Suicide_Prevention_Annual_Report_508.pdf

²⁰ <https://www.americangeriatrics.org/programs/gwep-coordinating-center>

²¹ <https://www.hhs.gov/about/news/2019/09/11/hhs-awards-more-than-50-million-establish-new-health-center-sites.html>

²² <https://bphc.hrsa.gov/qualityimprovement/strategicpartnerships/ncapca/national-training>

²³ <https://ece.hsdm.harvard.edu/>

competent models of care, inter-professional training and educational resources, and technical assistance to health care professionals in health centers who provide care to older adults.

Facilitating Telehealth Use by Patients and Providers during COVID-19

In May 2020, HRSA launched the *Telehealth.HHS.gov*²⁴ website which provides information about the latest Federal efforts to support and promote telehealth services. This online resource contains information for both patients and providers about the delivery and adoption of telehealth enabled services.

National Institutes of Health

The National Institutes of Health (NIH) is an operating division of HHS and the Nation's medical research agency seeking fundamental knowledge about the nature and behavior of living systems and the application of that knowledge to enhance health, lengthen life, and reduce illness and disability.

Fostering Artificial Intelligence Research to Benefit Older Adults

In February 2020, the National Institute on Aging (NIA) launched a funding opportunity announcement²⁵ in the area of explainable AI to address neuroscientific questions of encoding, decoding, and modulation of neural circuits to behavior. In March 2020, NIA released the *Artificial Intelligence and Technology Collaboratories for Aging Research*²⁶ funding opportunity announcement to support a national resource to promote the development and implementation of AI approaches to improve care and health outcomes for older Americans, including persons with dementia and their caregivers.

Supporting R&D Efforts for Older Adults during COVID-19

In April 2020, the NIA issued a *Notice of Special Interest*²⁷ to support existing grants and cooperative agreements in efforts to improve prevention of disease transmission among older adults and mitigation of disease severity and mortality in older adults with the virus. These efforts include telemedicine and remote medicine strategies to minimize disease transmission among older adults and their family caregivers and the development and integration of computational and informatics methods with emerging multi-modal data for diagnosis, prevention, and treatment of coronavirus.

In June 2020, NIA announced support for the *Rapid Acceleration of Diagnostics*²⁸ initiative to galvanize the scientific community to improve COVID-19 testing technologies, capacity, and accessibility. To this end, NIA released four funding opportunities for research on COVID-19 testing among underserved and/or vulnerable populations to address health inequities, with research topics including the use of telemedicine for supervised and unsupervised self-testing and the development of strategies to widely disseminate up-to-date, FDA-authorized and approved testing technology.

²⁴ <https://telehealth.hhs.gov/about/>

²⁵ <https://grants.nih.gov/grants/guide/pa-files/PAR-19-344.html>

²⁶ <https://grants.nih.gov/grants/guide/rfa-files/RFA-AG-21-009.html>

²⁷ <https://grants.nih.gov/grants/guide/notice-files/NOT-AG-20-022.html>

²⁸ <https://grants.nih.gov/grants/guide/notice-files/NOT-OD-20-121.html>

National Science Foundation

The National Science Foundation (NSF) is the only Federal agency whose mission includes support for all fields of fundamental science and engineering, except for medical sciences.

Funding R&D for Emerging Technologies that Support Older Adults

Since March 2019, NSF has funded R&D through multiple programs for a broad variety of projects, including the development of an augmented reality prototype system to assist those who have suffered a stroke; an easy way for people to optimize their hearing aids at home; wearable technologies that utilize machine learning to deliver personalized auditory biofeedback to improve balance while walking; human-centered robotics technologies to provide personalized neuro-rehabilitation for older adults with mild cognitive impairment; and a robotic health assistant-based smart home healthcare system.

Awarding Rapid Response Grants to Support COVID-19 Research

In April 2020, NSF announced a *Rapid Response Research (RAPID)*²⁹ funding mechanism enabling the agency to quickly process and support research to address the global pandemic. Multiple awards have addressed the impact of the pandemic on older adults, including how to better support them under social distancing practices and how variations in mobility among older adults can inform models of disease spread.³⁰

Office of the National Coordinator for Health Information Technology

The Office of the National Coordinator for Health Information Technology (ONC) is an operating division of HHS and the principal Federal entity charged with coordination of nationwide efforts to implement and use the most advanced health information technology and the electronic exchange of health information to improve healthcare.

Supporting Artificial Intelligence Tools and Interoperability for an Aging Population

In 2020, ONC published the *Cures Act Final Rule*,³¹ one of the most extensive healthcare data sharing policies the Federal government has implemented, requiring healthcare providers to share electronic health information with their patients while keeping that information private and secure. A core part of the rule is patients' control of their electronic health information, which will drive a growing patient-facing healthcare app economy.

In 2019, a *Patient Centered Outcomes Research Data Infrastructure*³² project was launched to support future applications of machine learning and AI to improve health and healthcare delivery. Additionally, the *Post-Acute Care Interoperability (PACIO)* collaborative partnership³³ was forged in 2019 between CMS, ONC, and the VA with the goal of establishing a framework for the development of fast healthcare interoperability resource technical implementation guides.

²⁹ <https://www.nsf.gov/pubs/2020/nsf20052/nsf20052.jsp>

³⁰ <https://www.nsf.gov/awardsearch/simpleSearchResult?queryText=COVID+AND+RAPID+AND+OLDER>

³¹ <https://www.healthit.gov/curesrule/>

³² <https://www.healthit.gov/topic/scientific-initiatives/pcor/machine-learning>

³³ <http://pacioproject.org/about/>

Social Security Administration

The Social Security Administration (SSA) administers retirement, disability, and survivors benefits and supports its customers by delivering financial support, providing superior customer service, and ensuring the safety and security of their information.

Protecting Our Nation’s Older Adults from Fraud and Scams

To further combat the threats brought about from scams and fraud, SSA in November 2019 developed and launched a new online scam form³⁴ to aid in the reporting, analysis, and action taken from the reporting of social-security related scams.

Improving Processing Times and Service through Technology

SSA has implemented technology to directly access medical content needed for disability claims from health information technology providers participating in the *Carequality*³⁵ network, a public-private, multi-stakeholder collaborative for exchanging data between and among health data sharing networks. Access to these healthcare data networks is an important step to receiving the majority of medical evidence needed to process SSA disability claims electronically—a key agency goal.

³⁴ <https://www.ssa.gov/news/press/releases/2019/#11-2019-2>

³⁵ <https://carequality.org/>