

### Transcript Details

This is a transcript of an educational program accessible on the ReachMD network. Details about the program and additional media formats for the program are accessible by visiting:

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## Healthy Aging: Promoting Well-being in Older Adults

>> Good afternoon, good evening, or good morning, depending on from when and where you are joining us.

I'm Dr. Phoebe Thorpe.

And it's my pleasure to welcome you

to the CDC Public Health Grand Rounds for September 2017.

We have an exciting session, so let's get started.

But first, a few housekeeping slides.

Public Health Grand Rounds has continuing education available

for physicians, nurses, pharmacists, veterinarians,

health educators, and others.

Please see the Public Health Grand Rounds website

for more details.

We are available on all your favorite social media sites.

Please send your questions for today's sessions and/or comments to the Grand Rounds email box at [grandrounds@cdc.gov](mailto:grandrounds@cdc.gov).

Want to know more about healthy aging?

We have a featured video segment on YouTube and posted to our website called Beyond the Data.

It is posted shortly after the session.

This month's session features my interview with Dr. Baumgart.

We have also partnered with the CDC Public Health Library to feature scientific articles about healthy aging.

The full listing is available at [CDC.gov/scienceclips](https://www.cdc.gov/scienceclips).

Also on your way out, the Public Health Library has put together a display about healthy aging.

Check it out.

Here a preview of the upcoming Grand Rounds session.

Please join us live or on the web at your convenience.

And in addition to our outstanding speakers,

I'd also like to acknowledge the important contributions of the individuals listed here.

Thank you.

I'd also like to take a moment to thank CDC for the opportunity to give this presentation, as my father-in-law passed away from Alzheimer's early this year, and it is a great honor

for me to be part of this session.

And now for a few words  
from CDC's deputy director, Dr. Schuchat.

[ Applause ]

>> Thanks so much, Phoebe.

And thank you all for joining us today.

You may have heard that orange is the new black,  
but some of us are saying that 80 is the new 60.

[ Laughter ]

And a staggering number of people can expect  
to reach their 100th birthday.

Meanwhile, many of us have brains on our minds --  
not just the developing brains of babies  
but the potential deterioration of brains as we age.

Too many of us are managing the consequences  
of cognitive loss in loved ones.

And enormous numbers of us are serving as caregivers  
for relatives in a territory we had never planned for.

Not enough of us are confident  
about the latest scientific findings on aging  
and the implications for public health.

To fill this gap, today's Grand Rounds brings experts

and problem solvers together to enlighten us about the topic of healthy aging.

Now, I've decided to subvert the usual introduction to Public Health Grand Rounds where we try to hit the key points that you're going to hear.

You heard about the podcast and all the other ways that you can keep up with the key points.

And instead, what I wanted

to do today was something a little different for the Public Health Grand Rounds and introduce a moment of poetry.

So here is an excerpt from the UK's -- apparently the UK's most popular poem about aging -- by Jenny Joseph.

It's called "Warning."

And for those of you used to seeing me in my Commission Corps uniform, this may seem particularly apropos.

When I am an old woman, I shall wear purple with a red hat, which doesn't go, and doesn't suit me.

And I shall spend my pension on brandy, and summer gloves, and satin sandals, and say we've no money for butter.

I shall sit down on the pavement when I'm tired, and gobble up samples in shops, and press alarm bells,

and run my stick along the public railings,  
and make up for the sobriety of my youth.

I shall go out in my slippers in the rain, and pick flowers  
in other people's gardens, and learn to spit.

[ Laughter ]

So with that, let us proceed  
with today's Public Health Grand Rounds.

[ Applause ]

>> Thank you.

And now for our first speaker, Sarah Lock.

>> Thank you.

I'll do my best not to spit -- I'll save that for afterwards.

So thank you.

My goal today is to introduce the concept of healthy aging,  
along with reviewing some of the benefits we gain,  
as well as the challenges we face as our population ages.

Then I discuss some strategies to promote healthy aging.

So, of course, healthy aging occurs across all age groups,  
and it is not merely the absence of disease or disability.

As shown in this model, healthy aging requires a comprehensive  
vision of physical, cognitive, and mental health,  
along with ongoing social engagement.

Aging is society's greatest achievement.

We have added more years to life expectancy since 1900 than in all previous human history.

Advances in public health and healthcare have reduced death rates of children and young adults and improved the lives of millions.

The result of all this progress is that a child born in 2011 can expect to live 79 years -- 32 years longer than a child born in 1900 at the turn of the century when life expectancy was only 47.

And as its trends show, many will live well into their 90's and beyond.

At the same time that people are living longer, birth rates, which peaked during the Baby Boom -- of which I'm proudly part -- from 1946 to 1964 are also declining.

Another way to look at these trends is to track the proportion of our population age 65 and over by state. Darker colors indicate a higher percent of older population. Following the last census in 2010, only a handful of states had more than 15% of their population age 65 and older. But by the next census, not four states but more

than 40 states will have exceeded that 15% threshold;  
and two states will have crossed the 20% mark.

But if you look at 2030, you can see  
that the youngest Boomers will have turned 65, and every state  
but one will have more than 15% of its population over the age  
of 65, and nearly half of all states exceed the 20% threshold.

Aging leads to new abilities and knowledge  
that older people can share with their communities.  
We want to make the most of that by not only increasing lifespan  
but health span as well,  
increasing the years Americans live  
without disabling conditions.

People over 50 in the United States generate \$7.6 trillion  
annually in economic activity.

And to give you a sense of proportion, when you add  
up all the economic activity they drive, older Americans make  
up the third-largest economy in the world,  
only behind the United States in its entirety and China.

Recruiting and retaining 50-plus workers is smart  
because of the value they bring to the workforce.

Seasoned workers get high marks for loyalty, reliability,  
and have a deep network of contacts  
from a lifetime of work.

Older workers score high in leadership, detail-oriented tasks, organization, listening and writing skills, even in cutting-edge fields like computer science.

But perhaps the greatest asset older workers bring is their workplace wisdom.

By the time you reach my age and older, we've learned how to get along with people, solve problems without drama, and call for help when necessary.

Older workers bring great value and productivity to a diverse work environment, including people of all ages.

And what's true in America is the older population is becoming much more racially and ethnically diverse.

Between 2014 and 2060, the share of the older population that is non-Hispanic white is projected to drop by 24 percentage points, from 78% to 54% or almost 55%.

As diversity increases, our approaches to promote healthy aging needs to be adaptive to be relevant to all people in all cultures.

Among our older population, the fastest-growing age group is those age 85 and older. And the second-fastest is the those 100 and over. And a majority of those people are women.



Consider that by 2050, 65-plus population in the US will double, while at the same time the 85-plus will triple. And the number of centenarians, those over 100 or older, will exceed 400,000 people by 2050. So we've talked about the 80-plus population increasing, and it will be by 44% between 2030 and 2040. Yet the number of caregivers aged 45 to 64 is projected to increase only by 10%. The caregivers' support ratio is the number of potential caregivers who are mostly adult children age 45 to 64 to each person 80 and over. So in 2010, the ratio was and is about seven caregivers for every 80-year-old. But fast forward a couple of decades to 2030, the ratio will only be four-to-one, and it continues to decrease going forward. In 2040, the ratio is expected to begin to bottom out as the population aged 80-plus is projected to increase 17% and the 45 to 64 population increases by 8%. So along with some of the benefits that I've talked about, aging has to -- we have to acknowledge that aging carries with it an increase in the prevalence of chronic diseases, such as hypertension, diabetes, and arthritis.

And you will hear from our next speaker about important public health considerations related to another group of chronic conditions -- Alzheimer's disease and dementias.

Other challenges are the racial and ethnic disparities which pervade many had been health measures are also seen with regard to lifespan and health span issues as well.

Lower socioeconomic status has an adverse impact on healthy aging unfortunately.

And with the majority of Americans living paycheck to paycheck and three-quarters of Americans between the ages of 55 and 64 having less than \$30,000 stacked away, many people do not have the resources to retire and are having to work longer.

So we need to make sure they're healthy and can do so.

Older adults also face more challenges with everyday activities, which can be compounded by their living situation or lack of social supports.

One-third of people over the age of 65 face restrictions in their ability to perform activities of daily living or what we call ADL's -- things like carrying for themselves; or IADL's -- things like managing money, preparing meals, or taking medications appropriately.

So one of the things to deal with the issues I've outlined is the Healthy Aging in Action Plan.

Released in November of 2016, it is intended to be part of the national prevention strategy.

The strategy's cornerstones include eliminating health disparities, encouraging safe and healthy communities, promoting clinical and community preventative services, and empowering people to make healthy decisions.

All of these ideas are relevant to make healthy aging a reality.

The goals of federal action steps are to support prevention efforts to enable adults to remain active, independent, and involved in their community.

It highlights innovative and evidence-based programs like from the National Prevention Council departments and agencies that address the physical, mental, and emotional social well-being of adults.

And the last goal is to inform future efforts to promote and facilitate healthy aging in communities.

I'd like to review several programs highlighted in the report that provide great examples of the diverse groups working

to keep older adults healthier and more active.

So while the health industry offers preventative services, patients can face challenges that they can't get to those services if they no longer drive or have limited or no access to transportation.

So in response, the Department of Transportation's Federal Transit Administration launched the Ride to Wellness Initiative.

It aims to increase access to care, improve health outcomes, and reduce healthcare costs.

The Department of Transportation finances innovative projects to help the disadvantaged get non-emergency medical transportation.

DOT is also cosponsoring a national survey of health and community centers to document the magnitude of missed medical appointments due to transportation issues.

Results of this research will inform not only the work of Ride to Wellness but also other local efforts to increase healthcare access to those who have limited transportation options.

The benefits of physical activities to your brain and body's health as you age have been well documented.

For example, those who are physically fit have half the risk of chronic health conditions such as hypertension,

coronary heart disease, type 2 diabetes,  
and some cancers compared to those who are less active.

However, only about one-third  
of older Americans meet the recommendations  
for physical activity.

So launched in 2011, the Go for Life Campaign,  
which is an initiative of the National Institute on Aging  
at the National Institutes of Health, it's a campaign  
to raise awareness about the benefits of exercise  
and physical activity and enlist individuals  
to become more active.

As of January 2016, Go for Life had more than 340 partners,  
primarily agencies, organizations, and companies  
that serve older adults or have physical activity as part  
of their core mission.

And one of my favorites is Vote and Vax,  
a Robert Wood Johnson initiative aiming to increase the number  
of Americans who get flu shots  
by offering them near polling places.

Less than half of adults aged 50 to 64 were vaccinated  
against the influenza flu during 2010 to 2011 winter.

And unfortunately,  
flu vaccination rates are even lower amongst African-American  
and Latino adults.

In 2012, Vote and Vax served 651 polling locations and was active in all state.

The program, also supported by AARP and the CDC, coordinates the activities of local public health departments, visiting nurses services, and pharmacies.

In 2012, 45% of those receiving flu shots at Vote and Vax clinics identified as African-American or Latino, indicating that Vote and Vax may represent a very helpful strategy to reduce racial and ethnic vaccination disparities.

So as you all are probably aware, Medicare is the primary payer for healthcare for older adults.

In order to improve the quality of care provided and reduce costs in the program, Congress made changes to Medicare to promote increased use of preventative care.

During the welcome to Medicare visit, a beneficiary's medical and social history, risk for depression and mood disorders, and functional ability are reviewed.

Their history of tobacco use, diet, and physical activities are also reviewed.

The creation of a written plan for the patient is a tool used to promote ongoing use of clinical preventative services.

Annual wellness visits include personalized prevention plan services and include a comprehensive health

risk assessment.

Importantly, it includes screenings

to detect cognitive impairment

and implements a screening schedule for things

like diabetes and high blood pressure,

and helps to keep vaccinations current.

The goal is better health outcomes

through an increased focus on prevention, allowing seniors

and doctors to work together

to catch conditions before they become serious and more costly.

The goals are to increase the uptake of preventative services

and reduce overall costs,

but only 7% of older adults are receiving their recommended

preventative services and only 16%

of Medicare recipients had an annual wellness visit in 2014.

Evidence on the improved health outcomes related

to welcome wellness visits is limited

because research is at the early stage.

Most current research has been focused on whether

or not people are getting the recommended

preventative services.

Medicare supports not only clinical prevention

but also community-based prevention.

An evaluation of community-based prevention and wellness programs conducted by CMS identified seven nationally disseminated programs with sufficient data to evaluate costs in health services utilized.

For Medicare beneficiaries who participated in a wellness and prevention program between two and three years ago, changes in health outcomes and levels of healthcare utilization and cost were compared to those of a control group.

The main outcomes evaluated were total medical costs, costs by healthcare settings, and health services utilized.

Medication adherence, physical and occupational therapy use, the incidence of falls

and fall-related fractures were also evaluated as appropriate.

While key results included decreased costs for beneficiaries and Medicare for selected outcomes for those who participated in the wellness programs, CMS concluded that more research development and implementation is needed before broader scale implementation is warranted.

So how can we promote healthy aging in our communities?

It's important to facilitate across all sectors, as I've described early in the presentation, across disciplines



and professions to create incentives to work together.

We need to expand the evidence base for strategies by designing and implementing methodologically rigorous evaluations.

We need to widely disseminate best practices and guides that address adopting healthy behaviors over lifespan.

Promoting the relevance of prevention across the life course and recognize the aging of the population is creating both unique opportunities, as well as challenges.

And finally, enhancing a multidimensional view of healthy aging.

One example of how AARP is embracing all five of these principles to promote healthy aging is our efforts to create and collaborate with the Global Council on Brain Health.

The GCBH is a cross-sector collaboration helping to disseminate the evidence base on brain health where we empower people to reduce their risk for cognitive decline across their lifespan by encouraging healthy lifestyles.

It's now my pleasure to introduce Matthew Baumgart.

[ Applause ]

>> Thank you very much, Sarah.

Sarah, in her conversation mentioned that with an aging society comes an increase in chronic conditions, and I'm going to talk to you today about one of those chronic conditions, Alzheimer's. But I want to back up and start with the concept of dementia. Dementia is not in and of itself a disease; rather, it's an umbrella term for a set of symptoms that are characterized by the loss of cognitive function that is severe enough to interfere with daily life. Now, there's several diseases and conditions that cause dementia, the most common of which is Alzheimer's disease. Scientists actually believe that many, if not a majority, of the cases of dementia are mixed, that is, a person with dementia has more than one cause of that dementia. Now, traditionally, Alzheimer's disease has been virtually synonymous with dementia, that is, if you did not have dementia, if you did not have certain symptoms, then you did not have Alzheimer's disease. But since 2011 when the National Institute on Aging and the Alzheimer's Association published proposed revised diagnostic criteria, Alzheimer's is being recognized as a disease with a long continuum where dementia is only one stage.

So it starts with physical changes in the brain,  
even before symptoms --

it's known as the pre-clinical stage --

followed by mild cognitive impairment caused

by Alzheimer's disease, and then finally the dementia stage  
of the disease.

But while the continuum is now seen as Alzheimer's disease --

which has particular significance, I believe,

for public health, as I will discuss shortly --

the data have not caught up.

So when you hear statistics about Alzheimer's,

such as the prevalence of Alzheimer's,

understand that these are statistics about people

in the dementia stage of Alzheimer's disease and not

about all people with the disease.

Another traditional conception about Alzheimer's is the idea

that Alzheimer's is an aging issue,

not a public health issue.

But that view is changing.

More and more people are heeding Dr. David Satcher's call to see

and address Alzheimer's as a public health crisis.

Now, an issue is defined in public health terms

when the burden is large, the impact is major,

and there are ways to intervene.

And Alzheimer's meets all three of those criteria.

Today more than 5 million Americans are living with Alzheimer's.

And caring for them this year will cost the health and long-term care systems more than a quarter of a trillion dollars.

In 2013, a study found that dementia was the most expensive disease in America.

In addition, it is the fifth-leading cause of death in the United States for older Americans.

Since 1999 the Alzheimer's death rate has increased 55% and the number of deaths from Alzheimer's has increased 110%.

The impact is major.

In fact, it has a disproportionate impact on African-Americans and Hispanics, who develop the disease at greater rates.

One-quarter of all hospitalizations among people with dementia are preventable, placing a big burden on our hospital system.

It has an impact on families; more than 15 million caregivers provide the economic equivalent of \$230 billion in unpaid care each year.

And two-thirds of the direct costs of caring for people with Alzheimer's are borne by government budgets, that is,

Medicare and Medicaid.

But there are ways for public health to intervene through surveillance, risk reduction, early detection and diagnosis, and management of co-morbidities.

And the rest of my presentation is going to focus on these ways that public health can intervene, beginning with primary prevention.

Now, there's a growing consensus that individuals can reduce their risk of cognitive decline by addressing certain risk factors.

In 2015, in separate published reviews of the evidence, The Institute of Medicine and the Alzheimer's Association independently concluded that individuals could reduce their risk of cognitive decline with regular physical exercise and the management of certain cardiovascular risk factors, specifically smoking, diabetes, and midlife hypertension.

The association also concluded that midlife obesity was a risk factor.

Basically the saying is what's good for your heart is good for your brain.

Now, earlier this year the National Academies released a second report, this one examining what the science says

about preventing dementia, not just cognitive decline.

And it found the strongest prospects for risk reduce in the areas of physical activity, managing blood pressure for those with hypertension, and cognitive training.

Now, the report called on the NIH and the CDC to make clear to the public that positive effects of interventions in these areas are supported by encouraging, although limited evidence.

In 2013 the CDC and Alzheimer's Association released the Healthy Brain Initiative, a public health roadmap for addressing cognitive decline, Alzheimer's disease, and the needs of caregivers.

One of the action items included in the roadmap is for public health officials to disseminate messages about risk reduction for preserving a person's cognitive health.

So secondary prevention, as you know, involves promoting early detection and diagnosis and disclosure of that diagnosis.

Data from the 2015 Behavioral Risk Factor Surveillance System found that more than half of those who say they are having memory problems that are getting worse --

this is known as subjective cognitive decline -- more than half of these people have not talked to a healthcare provider about their memory problems. And this hesitancy is one reason why as many as half of people living with Alzheimer's today have not been diagnosed. Now, to make matters even worse, Healthy People 2020 baseline data show that even among those who have been diagnosed with dementia, nearly two-thirds of them or their caregivers are unaware of the diagnosis -- unaware. In other words, people are not talking to healthcare professionals about their memory problems, people are not being diagnosed, and those who are diagnosed are not being told. And this is happening even though there are demonstrable benefits to an early and disclosed diagnosis. For example, it allows individuals to access available treatments, build a care team, and improve medication management. On the social side, individuals who have been diagnosed early can access support services, create advanced care directives while they're still able to do so, and address driving and safety issues.

So there's a big gap for public health to fill here.

And the roadmap calls for public health to educate providers about recognizing early signs and using validated assessment tools.

It also calls on public health to promote early diagnosis through culturally appropriate public awareness campaigns.

And significantly, one of the objectives of Healthy People 2020 is to increase the proportion of people who have been diagnosed with Alzheimer's and other dementias or their caregivers who are aware of the diagnosis.

So finally, looking at tertiary prevention, that is, managing co-occurring chronic conditions among people with Alzheimer's, there may not be a lot that can be done medically to treat Alzheimer's.

But those with the disease are nonetheless extremely expensive to the healthcare system because the disease complicates the management of other chronic conditions.

And this makes costs go up for a couple of reasons.

For example, 25% of hospitalizations, as I mentioned, are preventable among people with dementia.

People with dementia have unnecessary emergency department visits.

And illustrating this better



than probably anything else is diabetes.

There's been a great movement towards self-management of diabetes.

But think about this: How does a person with a cognitive impairment self-manage?

Well, it requires a different approach, a more intense approach; but unfortunately, that usually does not happen.

And as a consequence the diabetes is mismanaged, and a senior with Alzheimer's and diabetes ends up costing on average 81% more than a person with diabetes but not Alzheimer's.

And as you can see from the slide, these increased costs can be seen across a variety of conditions.

Now, one key way to better manage co-occurring chronic conditions among people with Alzheimer's is through care planning.

Care planning can improve the quality of care and quality of life for people with Alzheimer's

because it helps a diagnosed individual get on the right path of care.

Studies have found care planning results in better disease and medication management,

and individuals receiving care planning specifically geared toward those with dementia have fewer hospitalizations and fewer emergency room visits.

The good news is that as of the beginning of this year Medicare now covers care planning for cognitively-impaired individuals.

In addition to a formal care plan, this new Medicare benefit includes an evaluation of neuropsychiatric symptoms and safety issues, helping develop advanced care directives, referral to support services, and innovatively identifying and assessing the capabilities of an individual's primary caregiver -- that's part of this process.

An analysis by the non-partisan healthcare consulting firm Healthsperien concluded that reimbursing providers for care planning services would actually save the federal government through Medicare and Medicaid nearly \$700 million over ten years.

So as I mentioned at the beginning of my presentation, the new understanding of Alzheimer's disease as a continuum from the first appearance of physical changes or biomarkers to the onset of symptoms, to the development of dementia -- this continuum creates significant

opportunities, I believe, for public health.

Looking at Alzheimer's disease this way makes it clear --

in fact, make it imperative --

that we stop thinking of Alzheimer's as a matter

of custodial care for someone once they have developed dementia and start seeing it in public health terms.

And it's imperative that we employ the traditional tools

of public health across this continuum,

including risk reduction, early detection and diagnosis,

and the management of co-morbidities,

employing those tools of public health

to address the growing Alzheimer's crisis.

Thank you for listening.

And I am now pleased to introduce Grace Whiting

of the National Alliance for Caregiving.

[ Applause ]

>> Thank you so much, Matthew.

And thank you to the CDC

for hosting this amazing conversation today

on healthy aging.

I'm really excited to talk to you

about the caregiving aspect of this.

Now, if you're not familiar with us, the National Alliance

for Caregiving is a nonprofit organization with more

than 50 national members, including not-for-profit, government agencies, and corporations.

And together we work

on caregiving issues across the lifespan.

Today I'm going to talk in particular about some of the data that we found in our Caregiving in the US 2015 Report that was conducted with AARP.

And I would just note that when I say family caregiver, I'm talking about families of choice and relatives, including friends, family, and neighbors who are providing unpaid care to someone who needs assistance with activities of daily living.

And this would be different than someone who's a formal caregiver who's providing paid care, such as a home care worker, direct care aide often working through a defined healthcare or long-term care system.

So what is it that -- when we say family caregiving is a public health issue, what do we really mean?

I think the first thing here is that we estimate that there's 44 million family caregivers in the US -- this is roughly the same size as the population of Argentina.

So it's a huge number of people who are providing care unpaid to a friend, family, or a neighbor.

And if you were to replace each one of those family caregivers with a direct care worker, it would cost the US economy \$470 billion a year. Now, we think about caregivers as typically being a woman who's in her late 40's/early 50's caring for an older relative, but what we know from the data is that as time has gone on, caregiving, much like other older adults, is a group of folks that's become increasingly diverse, and it affects people from all backgrounds and walks of life. And on the right-hand side here you can see a snapshot of caregivers.

One thing I would note is that men are increasingly becoming caregivers as America ages.

And in younger cohorts, for example, Millennials, men and women are equally as likely to be caring for someone.

Now, what are they doing?

We know that they're spending about 24 hours a week providing activities of daily living, which is high-touch tasks, such as helping someone bathe, get dressed, and eat; instrumental activities of daily living, which would be coordinating-type skills, such as managing finances, or running errands, or cooking; and medical or nursing tasks, which would be things

like changing wounds, using a catheter, giving injections.

And at the same time that people are giving 24 hours a week caring for someone, most people are also working.

So 34% have a full-time job, a quarter are working part time, and then 28% are in what we would call the sandwich generation.

So they are not only caring for an older adult, but they're also raising children in their household.

So you start to get a sense of how difficult it is to balance both caring for someone, your own employment and financial needs, and your own personal needs.

This slide is from the Caregiving in the US data.

And what it illustrates is that caregivers are truly members of the healthcare team.

So there's three activities here, and we have a comparison on the right-hand side between your sort of typical caregiver -- people who are caring for someone where the primary reason is cancer and dementia caregiving.

And each of these cases you can see that caregivers are communicating with healthcare professionals about the care plan, they're monitoring the severity of a condition, and they're advocating for someone not just within the healthcare system but with long-term care

and service providers and government agencies.

And as the intensity or the complexity of the care situation increases, caregivers are even more likely to be engaged in these activities.

Additionally, I mentioned that caregivers are doing medical nursing tasks, and likewise there, the more hours that you're caring or the more complex the care situation, the more likely you're doing medical tasks in many cases without any prior preparation -- meaning no one's shown you or walked you through how to do these activities.

So how is it that caregivers support the healthy aging of populations?

We know that caregivers help individuals age better by being their advocates and helping them manage what they need to do on a daily basis, but we also have seen new research that shows that caregivers can reduce avoidable hospital readmissions by as much as a quarter at the 90-day mark and by 24% at 180 days.

We also know that for conditions where someone might have a disability or an older person is having difficulty living independently in a community, a caregiver can help them continue to live

on their own in their homes and communities  
and to avoid costly institutionalization,  
such as a nursing home.

Now, in order to do this, to be a true partner in care,  
caregivers need care, too.

And we know that if we neglect the health, the psychological  
and financial wellness of the caregiver,  
it not only makes it more difficult for someone to care,  
but it puts the care recipient at risk.

There is tons of research that shows that as someone is caring  
for a person whose condition is declining,  
the caregiver's own health will decline.

Many caregivers experience psychological stress,  
such as depression and anxiety.

And we know that caregivers spend a significant amount  
of income out-of-pocket to pay for the costs of care.

And this last number here from AARP estimates  
that it's nearly \$7,000 a year.

And for minority populations,  
many of whom have lower income thresholds,  
they spend as much as \$9,000 a year.

So what can we do about it?

Well, the first thing is health systems can help support family  
caregivers by looking at evidence-based interventions



that promote health and well-being.

And this is an example of some of the programs that we know that science has said works.

This first program, the REACH program was administered through the Department of Veteran Affairs, but it's been expanded to include not only caregiving for dementia, but also other conditions like ALS and TBI.

Powerful tools for caregivers is a self-care course, enabling caregivers to better understand how to take care of themselves so that they can care for others.

And next step in care addresses care transitions, which would enable a caregiver to help someone move through different settings of care, for example, from a hospital to the home.

Finally, the chronic disease self-management program is useful not only to a caregiver who's helping someone who's managing multiple chronic conditions in their loved ones, such as hypertension and diabetes, but also for many caregivers.

We know the average caregivers are middle-aged, they themselves are aging, and so it's important for them to manage those chronic diseases as they grow older.

From a system-level standpoint, providers can also include family caregivers

and the healthcare team.

And one of the major recommendations would be to use caregiver assessments that identify the willingness, readiness, and ability of an individual caregiver to provide care.

So as Matthew mentioned, some of this is being done through new Medicare billing codes.

And traditionally, this has also been done -- this idea of assessing a caregiver -- through the Medicaid program home and community-based services waivers.

We also see when we look internationally that there is work to assess caregivers, but it's not fully prevalent in our system of healthcare today. The other aspect of this is just simply including caregivers as members of the healthcare team, noting them in the medical records and electronic healthcare records, and treating them as a member of the healthcare team.

And there is state legislation in more than 40 states led by AARP called the CARE Act.

And the CARE Act actually does require hospitals to note family caregivers and to provide training to them upon discharge.

The great news is there are already several wonderful programs from the federal government that support family caregivers, the biggest of which is the National Family Caregiver Support Program led through the Administration on Community Living.

It supports 700,000 family caregivers across the US and is usually disseminated through the Aging Network. And it provides information and referral services, as well as access to respite care.

Likewise, the Lifespan Respite Care Program helps strengthen state networks to provide respite, and the VA Caregiver Support Program provides education, information, and a referral hotline for those caring for veterans.

And especially those who might be older caring for veterans of a post-9/11 conflict -- Iraq or Afghanistan -- the VA program even provides financial stipends based on the level of need.

In some places state and federal tax credits may be available to help caregivers offset the costs of care.

And many working caregivers are eligible for the Family and Medical Leave Act, which in some states has been expanded to include new kinds of caregiving relationships,

such as caring for a grandparent or an in-law.

And there are even a handful of states

where you can now get paid family and medical leave,  
which can help caregivers manage that work/life balance.

Finally, if people are looking for resources about caring  
for an older adult, whether it's nutrition, transportation,  
or the family caregiver program,

the Eldercare locator Provides a registry of what types  
of resources are available across the United States.

I think all of us have a stake in supporting family caregivers.

If we're not one now, we either will be or we'll need one.

And with that, I'd like to turn things over to

Dr. Lisa MacGuire.

[ Applause ]

>> Thank you, Grace.

From our previous speakers we heard

about national efforts related

to keeping older Americans healthy

and remaining independent as long as possible.

That is the primary focus of CDC's Alzheimer's Disease  
and Healthy Aging Program.

CDC's activities touch on each of these target audiences:

Older adults; healthcare professionals; and caregivers  
of older adults, especially those who are caring

for a person who has a cognitive impairment.

The types of activities that CDC's engaged in are data for action, partnership, raising awareness, training and education.

And I'm going to highlight our efforts in each of these areas.

The goal at CDC's Healthy Brain Initiative is to promote cognitive aging, both brain health and awareness of cognitive decline as part of public health practice.

The roadmap shown on the left side of this slide is a second in the roadmap series.

It outlines 35 action items for state, local, and public health officials.

The national plan to address Alzheimer's disease that is updated annually establishes five ambitious goals to both prevent future cases of Alzheimer's disease, to better meet the needs of millions of American families who are currently facing this disease.

The national plan serves as an additional driver for CDC's work.

CDC has both the subjective cognitive decline and caregiving optional modules included on the Behavioral Risk Factor Surveillance System.

Subjective cognitive decline is a common precursor to dementia.

It is a self-evaluation of one's memory functioning.

For public health, this is an indicator of potential future burden and the needs in a healthcare system, long-term services and support, and also in communities.

This module assesses in adults 45 years and older, worsening memory problems, potential difficulties in daily living associated with those memory problems, and if memory problems have been discussed with a healthcare provider.

This slides shows the states that have administered the subjective cognitive decline module in 2015, 2016, and 2017.

Those states are the combination of colors of the orange and the purple administer the module, for example, in both 2015 and in 2016.

Based on the 2015 BRFSS data, subjective cognitive decline appears to be decreasing slightly.

Those with SCD tend to report lower educational levels and are more likely to live alone.

These surveillance results can be used to target interventions to vulnerable populations, especially those concerned about cognitive decline, those who live alone, and those who might lack caregivers.

For the caregiving module, participants were 18 years old and older who indicated if they were a caregiver.

They also reported on the intensity and duration of the caregiving situation, problems that they encounter as a caregiver, and what their greatest care needs are.

Additionally, if they were not a caregiver, they also indicated if they expect to become a caregiver in the next two years.

This slide once again shows the states that administered the module in 2015, 2016, and 2017.

So, for example, states that had the orange and purple together administered the module in both 2015 and 2016.

The results from the 2015 BRFSS module indicate that 22% of respondents 18 years old and older provide regular care or assistance to a friend or family member; 9% of caregivers indicate that dementia is the main reason that they are providing for the care, so the main reason the person is needing their caregiving assistance.

So what do we know about the physical and mental health of caregivers?

Caregivers are more likely to report fair to poor physical health, depression, also more likely to report frequent mental

and physical distress, as well as obesity.

However, we do find that there are no differences between caregivers and non-caregivers on coronary heart disease, stroke, CVD in diabetes, and also on receiving a routine checkup within the past two years.

To increase accessibility of BRFSS subjective cognitive decline and caregiving data in partnership with the Alzheimer's Association, a series of state-specific infographics were developed and released.

Additionally, CDC launched a public data portal on the health of older adults, which provides access to key indicators of the health and well-being of older Americans.

These indicators provide a snapshot of currently available surveillance information and can be useful for prioritizing or evaluation of public health interventions.

Partnerships are the cornerstone of the Healthy Brain Initiative and the accomplishment of the roadmap activities.

Some of our key partners are shown here, and I'm going to highlight some of the activities through the remainder of the presentation.

The Balm in Gilead, CDC's newest partner,



established the National Brain Health Center for African-Americans.

The goal of the center is to raise awareness of the issues affecting brain health through capacity development within church congregations as an integral partner in the prevention, disease management, and caregiving.

As a way to raise awareness of brain health and caregiving in the church congregations,

The Balm in Gilead initiated Memory Sunday in June of 2017.

Highlights of Memory Sunday included 130 churches participated, reaching approximately 80,000 congregational members.

There were 13 related events in locations shown on the map with nearly 4,000 participants in them as well.

To further raise awareness of brain health issues, the Healthy Brain Research Center at the University of Pennsylvania, a Healthy Brain Research Network site, developed a series of research-based and tested messages targeted to adult children, encouraging them to accompany their parent to a doctor appointment regarding memory concerns.

Recruiting and training a workforce that is skilled to work with older adults is important,

given the demographic trends that we've heard about today in changes within this population.

The public health curriculum is designed to educate public health students about the growing issues related to Alzheimer's disease and dementia, and it is tied to the core competencies for public health professionals.

Healthcare providers are another important focus of education efforts related to brain health and dementia. There is a need to increase the awareness, knowledge, and abilities of healthcare providers who interact with and support people of cognitive impairment and also their caregivers.

The Balm in Gilead developed a curriculum and educated over 300 nursing professionals in 14 chapters of the National Black Nurses Association in 2016.

In 2017 they developed additional curriculum to educate African-American physicians about brain health in partnership with the National Medical Association.

In another initiative for healthcare providers, the KAER toolkit developed by the Gerontological Society of America helps to get cognitive screening and assessment resources into the hands of primary care physicians.

The materials in this toolkit are designed to improve detection of cognitive impairment, earlier diagnostic evaluation, and referrals for education and supportive community services for persons with dementia and also their family caregivers.

The resulting toolkit provides options to the primary care physicians.

Health plans and healthcare systems can select the approaches and tools that best fit with their existing primary care structure.

The Alzheimer's Association awarded small grants to public health agencies in seven states.

I want to highlight two of these states that focused their efforts on training healthcare professionals.

Colorado trained first responders to effectively interact with people with dementia who are residing in communities.

Utah developed dementia-related competency for primary care providers, including both medical and nursing students, as well as other non-health workforces that work with older adults across the continuum of their care.

CDC moving forward with our partners will continue

to support the collection of data for both the cognitive decline and caregiving modules on the BRFSS and other surveillance systems.

This data can be used for action, and innovative tools facilitating access will be developed.

We are currently in the process of analyzing the recently released 2016 BRFSS data. CDC will continue to increase awareness about dementia and risk reduction strategies while reducing conflicting messages for both patients and healthcare providers, in addition to increasing supports for caregivers.

The key is to improve the awareness but just improve awareness that will actually result in action.

CDC will also continue to promote cognitive screening and assessment, and the early diagnosis and disclosure of Alzheimer's disease and related dementias.

We will continue to do this through the training and education of healthcare providers and public health professionals and the development and promotion of tools to facilitate assessment, diagnosis, and disclosure.

The ultimate goal is to promote the health and well-being of persons with a cognitive impairment and their caregivers.

CDC's Alzheimer's Disease and Healthy Aging Program will keep moving the field forward together with our partners to keep older Americans healthy and remaining as independent as long as possible.

This slide highlights some of the program's current collaborations; however, there is a lot that needs to be done in this field that we can only accomplish together through collaborations across multiple sectors.

Thank you very much.

And now I want to open the session up for questions.

If you are participating remotely, please make sure you submit your questions electronically.

If you're on site, please raise your hand or move to a microphone.

And I'm going to first ask Susan if we have any questions remotely.

[ Applause ]

>> We have several questions online.

In the absence of a sense of purpose, what can we do to help older adults who have mobility and sight issues and, thus, cannot volunteer teaching children how to read and play ball?

I'm struggling to think outside the box,  
but I'm having difficulty.

So what can we help the aging population do  
to stay interactive?

>> Sarah, do you want to take that?

>> Sure. Thanks for that question.

There are so many opportunities for people to volunteer  
and find purpose in their community.

I can recommend AARP's Connect2Affect.

It's an initiative to link older adults  
with volunteer opportunities  
in their communities throughout the country.

There are lots of opportunities, both in-person and remotely  
to find ways to engage with your community.

And even if you have certain physical limitations,  
there are ways around it.

>> Thank you very much.

Susan, did you want to comment?

>> One more.

I want to summarize we have multiple questions  
on accommodations in housing.

What can families plan to do to adapt their households  
and how can they find more information on that?

>> That -- I'd like to follow up with you about that.

Because there are enormous opportunities for that.

Other aging organizations and the creation of livable communities is a big initiative of AARP's, and that's to enable people to live independently in their communities.

I'll be happy to provide a list of resources and opportunities for you to address that specific question.

>> And we can post that on our Grand Rounds website.

>> Great.

>> I would just add to that very briefly, the Americans with Disabilities Acts does also protect people who are caring for somebody with limitations.

So people who are caring for families, that should be one thing that they should think about, is whether they might be able to get accommodations through the ADA.

So, for example, if you're heard of hearing, you can actually get a free caption telephone through the ADA.

And a lot of people aren't aware of that.

And the other would be to go to the elder care locator because it does provide a lot of resources for families and for individuals who may be dealing

with functional limitations.

>> And then we had a question in the room.

>> Thank you very much for your commitment to healthy aging and sharing that with us.

It seems if we're going to get from treatment to prevention, we need really good early diagnosis so we can separate out it's not just the general population in trying to see what seems to be better, but we have early detection of people who would otherwise develop and we can tell what's working to prevent.

What's the on the horizon for highly reliable, can be reliably given, and highly specific ways to diagnose early?

>> So one of the things that I think is the most exciting is something called the IDEAS Study.

That's currently \$100 million study that's been funded by the Centers for Medicare and Medicaid Service, CMS.

And it's the American College of Radiology and the Alzheimer's Association are doing it.

And what it's doing is testing -- about 20,000 people are in this study -- testing amyloid PET scans.

So there's an agent that's used in a PET scan



that can detect amyloid on the brain.

And what the study is looking at is what is the impact of that on healthcare, and on the treatment of healthcare, and on the diagnosis?

One of the -- the agent has been approved by the FDA, but CMS said we need more information on its usefulness, its utility in order to approve its coverage under Medicare.

And the Alzheimer's Association believes that this tool, for example, this amyloid PET scan is particularly relevant in the diagnostic sense when you're dealing with differential diagnosis.

So you know there's something wrong with an individual, and you need to pinpoint more accurately or you need to pinpoint exactly what that diagnosis is, and this would be a great tool to use to enhance that diagnosis and to be able to better make that diagnosis and potentially at an earlier point in the process.

And so this is a very exciting study.

There were some preliminary results that were released last summer that were very, very promising.

And so that's one potential.

Another is the ongoing research for biomarkers.

So we know, for example, on amyloid on the brain -- so that's the plaque that develops on your brain --

if you don't have the plaque on the brain,  
you don't have Alzheimer's.

But the question remains, if you do have plaque on the brain,  
does that mean you have Alzheimer's?

So does it work both ways?

And so can you use amyloid, which you can now see  
on this PET scan, can you use that as a biomarker?

And so that's additional research that needs to go on.

And I'll mention one more,  
and that is a study called the DIAN trial.

And this the Dominantly Inherited Alzheimer's Network,  
D-I-A-N, DIAN.

This is a group of people who have a genetic anomaly  
that guarantees that they will get Alzheimer's.

This is very rare.

So this is less than 1%

of all Alzheimer's cases have this genetic anomaly  
and they will get it at a very young age.

But because they are guaranteed to get it,  
we know that they will get it so we can study various means  
of prevention and whether certain things can delay the  
onset of the disease in people  
that we know are going to get it.

The problem is doing a research study on preventive measures

for this disease is problematic because it takes a long time for to you get to the point of being 85 years old and, you know, following people for 30 or 40 years is extremely difficult in a study.

And so what's exciting about the DIAN trial is because you know these people are going to get it, whereas me, we don't know that.

So those are just a couple of things that I think are exciting on the horizon about diagnosis and prevention.

>> We've had so many questions, I'm going to go to Susan one more time.

>> Yes. And I'll, again, summarize from Katie in our Facebook Live stream, what efforts are being done at the local level to reach and impact the health of the young old or early prevention for the young old?

>> So I will, again, mention livable communities.

There is an enormous effort underway in association with local communities all over the United States, an effort coming out of the World Health Organization to create livable communities.

And that's to make sure that streets and housing are accessible, that there are transportation options, places for healthy eating, a whole variety of ways

of thinking about how to build communities  
for people of all ages.

You know, the kinds of innovations that are great  
for mothers and strollers who are able to take advantage  
of curb cuts are the same kinds of advantages that disabled  
and older people find really helpful.

So finding local communities  
who are constructing the opportunities and the means  
to transform their communities into places  
that promote exercise and healthy food options are,  
I think, part of the best way.

There's lots of workplace and wellness initiatives  
for the middle-aged folk.

And some of the initiatives that Grace was mentioning  
around caregiving, kind of linking the importance  
of maintaining your health over age as you age.

>> All right.

Fascinating session, a lot of good stuff.

Please join me in thanking the speakers.

[ Applause ]

And, again, if you have a moment,  
please pop down to the library and see their display.

And thank you very much for joining us.

We'll see you next month for Public Health Grand Rounds.

We'll see you next month for  
Public Health Grand Rounds.