Starting on Jan. 1, our 79-million-strong baby boom generation started turning 65 at the rate of one every eight seconds. That means more than 10,000 people per day, or more than four million per year, for the next 19 years, facing an increased risk of Alzheimer’s. Although the symptoms of this disease and other forms of dementia seldom appear before middle age, the likelihood of their appearance doubles every five years after age 65. Among people over 85 (the fastest-growing segment of the American population), dementia afflicts one in two. It is estimated that 13.5 million Americans will be stricken with Alzheimer’s by 2050 — up from five million today. Just as President John F. Kennedy, in 1961, dedicated the United States to landing a man on the moon by the end of the decade, we must now set a goal of stopping Alzheimer’s by 2020. We must deploy sufficient resources, scientific talent and problem-solving technologies to save our collective future. As things stand today, for each penny the National Institutes of Health spends on Alzheimer’s research, we spend more than $3.50 on caring for people with the condition. This explains why the financial cost of not conducting adequate research is so high. The United States spends $172 billion a year to care for people with Alzheimer’s. By 2020 the cumulative price tag, in current dollars, will be $2 trillion, and by 2050, $20 trillion. If we could simply postpone the onset of Alzheimer’s disease by five years, a large share of nursing home beds in the United States would empty. And if we could eliminate it, as Jonas Salk wiped out polio with his vaccine, we would greatly expand the potential of all Americans to live long, healthy and productive lives — and save trillions of dollars doing it.

Experience has taught us that we cannot avoid Alzheimer’s disease by having regular medical checkups, by being involved in nourishing relationships, or by going to the gym or filling in crossword puzzles. Ronald Reagan suffered the ravages of this disease for a decade despite the support of his loving family, the extraordinary stimulation of his work, his access to the best medical care and his high level of physical fitness. What’s needed are new medicines that attack the causes of the disease directly. So far, only a handful of medications have been approved by the Food and Drug Administration to treat Alzheimer’s, and these can only slightly and temporarily modify symptoms like forgetfulness, disorientation and confusion. None actually slows the underlying neurodegeneration. In the mid 1980s, when our country finally made a commitment to fight AIDS, it took roughly 10 years of sustained investment (and about $10 billion) to create the antiretroviral therapies that made AIDS a manageable disease. These medicines also added $1.4 trillion to the American economy. The National Institutes of Health still spend about $3 billion a year on AIDS research, while Alzheimer’s, with five times as many victims, receives a mere $469 million.

Most of the medical researchers who study Alzheimer’s agree on what they have to understand in order to create effective drugs: They must find out how the aberrant proteins associated with the disease develop in the brain. They need to model the progression of the illness so they can pinpoint drug targets. And ultimately they must learn how to get drugs to move safely from the blood into the brain. A breakthrough is possible by 2020, leading Alzheimer’s scientists agree, with a well-designed and adequately financed national strategic plan. Congress has before it legislation that would raise the annual federal investment in Alzheimer’s research to $2 billion, and require that the president designate an official whose sole job would be to develop and execute a strategy against (Continued on page 2… )
Alzheimer’s. If lawmakers could pass this legislation they would take a serious first step toward meeting the 2020 goal. Medical science has the capacity to relegate Alzheimer’s to the list of former diseases like typhoid, polio and many childhood cancers. But unless we get to work now, any breakthrough will come too late to benefit the baby boomers. Whether the aging of America turns out to be a triumph or a tragedy will depend on our ability to fight this horrific disease and beat it before it beats us.

By studying adults with Down syndrome, researchers hope to find new ways to combat diseases of aging in the larger population. For example, why do Down syndrome patients develop early Alzheimer’s disease?

Adults with Down syndrome appear to develop the brain plaques and tangles characteristic of Alzheimer’s disease very early in life — even as young as 3 or 4 years old. For decades, however, their brains also appear to repair and compensate for the damage, says scientist Elizabeth Head of the University of Kentucky’s Sanders-Brown Center on Aging. "Their brains may be clearing the plaques," says Head, who is now recruiting Down syndrome patients for a study on biomarkers of Alzheimer’s. "As they get older, this protective process slows down."

By age 40 to 45, virtually everyone with Down syndrome has these plaques and tangles, although only 12% have dementia. By age 65, up to 75% of people with Down syndrome have dementia. Significantly, doctors have found a gene that increases the risk of Alzheimer’s, called
Down Syndrome and Alzheimer’s Disease (continued)

APP, on the 21st chromosome, says Ira Lott, head of pediatric neurology at the University of California-Irvine School of Medicine. The gene, called amyloid precursor protein, is involved in the creation of the brain plaques, seen in Alzheimer’s patients.

“People who inherit mutated copies of these genes may develop Alzheimer’s disease decades earlier than usual,” says William Mobley, a neuroscience professor at the University of California-San Diego. “If researchers could learn what protects certain people, they might be able to develop a therapy to prevent Alzheimer’s — both in those with and those without Down syndrome,” says Head. “People with Down syndrome present doctors with a rare opportunity to watch the disease progress. There's no other population where you can really study this,” Lott says. Although some people without Down syndrome carry a gene that increases their risk of early dementia, "you don't know who in the general population is going to come down with sporadic Alzheimer’s. With Down syndrome, you know that virtually 100% of them will develop plaques."

“If I were asked...to what the singular prosperity and growing strength of...[the Americans] ought mainly to be attributed, I should reply: To the superiority of their women."
- Alexis De Tocqueville

Centralized Follow-up - Update

We would like to again thank all of our SELECT/PREADVISE participants who have agreed to allow us to contact them via telephone. Because this type of follow-up is something we haven’t attempted until now, we have encountered some issues we hadn’t quite counted on. Specifically, we encountered unanticipated problems with the installation and programming of our phone equipment. Even when it appeared that the technicians had everything worked out, another problem would suddenly crop up. Finally, though, we have all of our phones and phone lines working properly. We now have two separate toll-free phone lines that you can use to contact us if there is a specific date and time that you would like us to contact you. You may also call these toll-free numbers if you have any questions about your participation in PREADVISE or questions about cognitive health in general. The toll-free numbers are 866-846-1412 and 877-460-3999. If you should call and our associates are on other calls, or are otherwise unavailable, please leave a short voice-mail message that includes your name and phone number, and we will call you back at your convenience.

We have also had some staffing setbacks that have gotten us off to a slow start in contacting our participants. These problems are quickly fading and we anticipate that they should be well behind us by the time you receive this issue of our newsletter. We appreciate your patience with us during this time, and we apologize if you felt inconvenienced in any way. Your participation is very important to us and we will make every effort to work with you on a schedule that is convenient for you. Because of the aforementioned issues, and also partly due to unsuccessful calling attempts, we have failed to reach many of you in your birth month. However, we will continue to pursue this goal so that you can have an idea of when to expect our call. Our full time phone callers are Josh and Korey, with Brandon and others helping out at times.

During the course of our phone call with you, which typically should last about fifteen minutes, we will ask you about medications that you are currently taking. We realize that you have been asked for this information in the past, but medications can change often. So, in preparation for your annual call, we recommend that you keep an updated list of all your medications near your phone where it can be easily accessed. This will help to facilitate the phone call, and you will always have an updated medication list handy whenever you need to see your doctor. We look forward to speaking with you!
**Healthy Eating**

**Eat your colors** Yes, you read correctly. An easy way to think about getting your fruits and vegetables is by their colors. Divide fruits and vegetables into five groups: red (i.e. tomatoes, apples, etc.), white (i.e. turnips, parsnips, etc), green (i.e. leafy vegetables), yellow/orange (i.e. summer squash, carrots, oranges, etc.) and blue/purple (i.e. eggplant, blueberries, etc.). Ideally, get at least one food from each group every day. Instead of going to the grocery store and trying to think of foods with vitamin C and lycopene, you can get foods according to color. Every fruit and vegetable has a unique footprint. They have a unique set of nutrients, minerals, phytochemicals and fiber. And the best way to get all those nutrients is to eat a variety of colors.

**Nature's color chemistry** Phytochemicals give fruits and vegetables their colors. Phytochemicals are the disease-fighting substances only found in plant-based foods - fruits and vegetables. Eating a diet rich in fruits and vegetables may help lower the risk for certain cancers, type 2 diabetes, high blood pressure, and eye diseases. Fruits and vegetables are also rich in vitamins, minerals and fiber. These all work together to help your body be strong. Many people don't get enough. About three-fourths of Americans don't get the minimum of five servings a day of fruits and vegetables. Instead they are eating too many high-fat, high-calorie foods, such as meat and sweets. Foods like French fries don't count because they are high in fat and calories after they are fried.

**Five is minimum** Most people need more than five servings a day. Children 2 to 6 years old should get three servings of vegetables and two servings of fruit. Children older than 6, teenage girls, active women and most men should get at least four servings of vegetables and three servings of fruit. Teenage boys and active men should get five servings of vegetables and four servings of fruits.

Because fruits and vegetables tend to be filling and low in calories, they can also be a good way to help you manage your weight.

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Joyce C. Hall was raised in Nebraska by his mother. His father left home when Hall was nine. In 1910, Hall headed to Kansas City to seek his fortune. He was armed with two shoeboxes full of picture postcards he hoped to sell to dealers throughout the Midwest. After only a few years, the postcard business had expanded enough to allow his bothers Rollie and William to join him and open a specialty store for postcards and stationery. Then Hall decided that selling Christmas cards with envelopes might be more profitable. He decided to call his company Hallmark, a play on his name and the word for quality. The word hallmark dates back to the year 1300, when gold and silver were marked for quality at Goldsmith's Hall in London. Coins of quality received a “Hall mark.” The first Hallmark card appeared in 1916. It featured the greeting “I'd like to be the kind of friend you are to me.” One of the innovations that made Hallmark so successful, however, had nothing to do with the sentiments contained in the cards. In 1936, Hall introduced display cases that featured rows of cards that the customer could browse. Previously, cards were purchased by asking a clerk to choose an appropriate card. When Hall died in 1982, the company he had founded was worth $1.5 billion. These days, more than 10 million Hallmark cards are sold each year “All I was trying to do was make a living,” Hall once said. "In those days, if you didn't work, you didn't eat. And I like to eat.”

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“Genius may have its limitations, but stupidity is not thus handicapped.”
- Elbert Hubbard (1856-1915)

"Man has his will, - but woman has her way."
- Oliver Wendell Holmes (1809 - 1894)

“Must you wear that “I hate Chic movies” shirt every time we go to rent movies?”

- Native American Saying

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"There are times when silence has the loudest voice."
- Leroy Brownlow

“Make it a double, Charlie. I chewed up my owner’s new shoes, so I’ll probably need it.”

- Leroy Brownlow

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Advice for Today

Many people go to the doctor ready to just listen and let the doctor take the lead. But the best patient-doctor relationships are partnerships. You and your doctor can work together as a team that includes nurses, physician assistants, pharmacists, and other health care providers to address your medical problems and keep you healthy.

Your first step is to find a main doctor (your primary doctor or primary care doctor) that you feel comfortable talking to. Your doctor needs to understand your health concerns and problems. He or she will help you make medical decisions that suit your values and daily habits, and will keep in touch with any other specialists you may need. So spend some time finding a doctor you can trust and with whom you can talk openly.

Try drawing up a basic plan to help you make the most of your appointments, whether you’re starting with a new doctor or continuing with the one you’ve seen for years. Make a list in advance of the things you want to discuss. Do you have a new symptom? Are you concerned about how a treatment is affecting your daily life? If you have more than a few items to discuss, put them in order with the most important ones first. Good communication is key to good health care. Tell your doctor if you have vision or hearing problems so he or she can accommodate you. Ask for an interpreter if the doctor doesn’t speak your language.

Some doctors suggest you put all your prescription drugs, over-the-counter medicines, vitamins, and herbal remedies or supplements in a bag and bring them with you. You should at least bring a complete list of everything you take. A recent survey found that nearly two-thirds of older Americans use some form of complementary and alternative medicine—health practices outside the realm of conventional medicine, such as herbal supplements, meditation, homeopathy and acupuncture. Less than one-third of them, however, discuss these practices with their doctors. This news is a cause for concern because your doctor needs to have a full picture of everything you’re doing to manage your health.

During your visit, make sure to ask questions if anything is unclear to you. Bring up any problems or concerns you might have, whether or not the doctor asks about them. Ask about different treatment options. And don’t hesitate to tell the doctor if you have concerns about a particular treatment or change in your daily life.

You might also consider bringing a family member or close friend to your appointment with you. Let him or her know in advance what you want from your visit. Your companion can remind you what you planned to discuss with the doctor if you forget, or take notes for you and help you remember what the doctor said. Take an active role in your own health care. Do everything you can to get the best care possible.

Source: National Institutes of Health
PREADVISE Update: Currently, more than 3800 men have consented to centralized follow-up by PREADVISE. We sincerely appreciate your continued participation in our research study. To learn more about Alzheimer’s disease and Alzheimer’s research, please go to the following website:
http://www.nia.nih.gov/alzheimers

Vocabulary Builder

idiom
Pronunciation: /ID-e-um/
n : an expression that is unique to a language and can’t be understood from the individual meanings of its components
"After years of travel, he was well acquainted with Canadian idioms."

connotation
Pronunciation: /con uh TAY shun/
n : an idea or image suggested by or associated with a word
The word ‘mother’ has different connotations to different people."

skunk works
Pronunciation: /SKUNGK wrks/
a small, often isolated department or facility, that functions with minimal supervision in a company
Despite its small size, the skunk works developed the company’s best-known and most-respected software products.