LIVING TO 90 AND BEYOND

What factors determine which of us will make it past age 90? Lesley Stahl reports on a groundbreaking study that has revealed some unexpected findings.

The following script is from "90+" which aired on May 4, 2014. Lesley Stahl is the correspondent. Shari Finkelstein, producer.

It’s always been a dream of mankind to live forever. Since the start of the 20th century, we have increased life expectancy in this country by a remarkable 30 years -- from just 49 in 1900, to almost 79 today. And more and more of us are making it into that group we all hope -- and kinda dread -- joining, the over 90 crowd, affectionately dubbed “the oldest old.”

Men and women above the age of 90 are now the fastest-growing segment of the U.S. population. Yet very little is known about the oldest old, since until recently, there were so few of them. So what determines which of us will make it past age 90? What kind of shape we’ll be in if we do? And what can we do now to up our odds? Finding out is the goal of a groundbreaking research study known as “90+.”

Jane Whistler: I was born on April 21st, 1914.

Ted Rosenbaum: My birthday is February 7th, 1918.

Lou Tirado: I was born on August 25th, 1920, and I’m 93+.
Ruthy Stahl: June 15, 1918, and it was-- I'm sure, a lovely day.

Lesley Stahl: Do you feel 95? What do you-- what age do you feel?

Ruthy Stahl: I feel about 52. (laugh) Not really.

What they have in common -- other than having lived a combined total of almost 400 years -- is that decades ago, they all lived in a retirement community called Leisure World 45 miles south of Los Angeles.

[Announcer: Hi there, and Welcome to Leisure World. A new way of life, designed for alert and active people 52 years and older who want to get the most out of life.]

Today it’s still a retirement community, and they’re still getting the most out of life, though it’s no longer called Leisure World. It’s now its own city: Laguna Woods.

Claudia Kawas: They didn’t like the words “Leisure World.” They consider themselves active.

Lesley Stahl: Active World.

Claudia Kawas: Active World.

Dr. Claudia Kawas spends a lot of time in Laguna Woods these days. She’s a neurologist and professor at nearby UC Irvine who discovered the research equivalent of gold here -- information gathered from thousands of Leisure World residents back in 1981, with page after page of data about their diet, exercise, vitamins, and activities.

Claudia Kawas: 14,000 people answered--

Lesley Stahl: 14,000--

Claudia Kawas: --this questionnaire in 1981. Many of them, if they were still alive, would now be over the age of 90.

She saw a rare opportunity to study what worked, and what didn’t.

Lesley Stahl: So you-- did you try to find them?

Claudia Kawas: We went after all 14,000. And if they were still alive, we wanted to find where they were.

With $6 million of funding from the National Institutes of Health, Kawas and her team set out to find out who had died, when they died, and to convince those who were still living and over 90 to sign up.

Claudia Kawas: And you're how old now?

Jane Whistler: I'll be 100 in three months.
Claudia Kawas: We're gonna have to have a party.

Jane Whistler: Good! I love a party.

Jane Whistler is one of the more than 1,600 men and women they found and enrolled as subjects in the 90+ study. They are checked from top to bottom every six months -- their facial muscles, reflexes, balance, how they walk, how fast they can stand up and sit down and most importantly, how their minds are working.

Tester: I'm gonna say and show you three words for you to remember. Shirt. Brown. Honesty.


Tester: Perfect.

Tester: Now please spell "world."

They are given an hour-long battery of cognitive and memory tests.

Tester: Good. Now spell "world" backwards.

Jane Whistler: D-L-R-O-W.

Asked to connect letters and numbers and to remember.

Tester: All right. What three words did I ask you to remember earlier?


Tester: You want a little hint?

Jane Whistler: Yeah.

Tester: OK. Was that word honesty, charity--

Jane Whistler: Honesty.

Tester: Yes.

Lesley Stahl: When it's time for your exams in the 90+ study, do you look forward to it or--

Jane Whistler: Sure.

Lesley Stahl: Do you ever say, "Oh, they're gonna find something," or, "I'm not gonna be able to do as well as I did last time?"

Jane Whistler: Oh yeah, I think that. Sure.

Lesley Stahl: You do.

Jane Whistler: But that doesn't stop me. I think it's-- I think it's fun.

Lou Tirado: Shirt, brown, honesty.
We were struck by what great shape many of the study participants are in like Lou Tirado, a World War II B-17 gunner who was shot down near Berlin and spent eight months as a German POW, and Sid Shero, another World War II veteran, who came to talk to us despite having suffered a stroke just a few weeks earlier that slurred his speech.

Sid Shero: I am 92 years old and going strong.

Sid drives his car to his test sessions.

Lesley Stahl: You drive a convertible?

Sid Shero: Yes.

Lesley Stahl: You want the girls to look at you.

Sid Shero: They call it a chick car.

Sid, a widower, works out at the fitness center, keeps up with the news -- and the ladies...

Lesley Stahl: So you're a bachelor.

Sid Shero: Yes.

Lesley Stahl: Do you date?

Sid Shero: Yes.

Lesley Stahl: Do you have a rich social life?

Sid Shero: Yes.

Lesley Stahl: Is it fun?

Sid Shero: Yes. Very much so. And I hope to last a long time.

But of course not everyone is so lucky. When participants like Louise Bigelow, age 97, are too frail to come in for testing, the testers go to them.

Tester: Now, an orange and a banana are alike, because they're both--

Louise Bigelow: Yellow.

Louise remembers events from long ago, like when her bridal veil caught fire a few minutes after this photo was taken.

Louise Bigelow: It went right into the flames of the candles. So I always had a lot of excitement all the time. And that was the beginning.

Lesley Stahl: You're not gonna forget that ever.
Louise Bigelow: No.

But when it comes to recent memories, and thinking skills, she struggles more and more.

Tester: And in what way are laughing and crying alike?
Louise Bigelow: Ugh. I don't know.

Ruthy Stahl: Brown, honesty, and uh shirt.

The testers go to 95-year-old Ruthy Stahl's home too. They go not because she can't come to them. She just doesn't have time.

Ruthy Stahl: I'm in my car more than I'm in the house, I think. Because I do so many things.
Lesley Stahl: What do you do?
Ruthy Stahl: I am flying all over the place.

Flying, as in speed walking three miles almost every day.

Ruthy Stahl: On Sunday, it's only two miles.

Lesley Stahl: Are you on the computer?
Ruthy Stahl: Yes, I am. But I'm having trouble with my computer.

Jane Whistler: I had a computer for 10 years and enjoyed it, but it died.

Jane outlived her computer. At almost 100, she's done a lot of outliving.

Jane Whistler: We were all bridge players down here. We'd play bridge and have dinner and we had a lot of fun.

Lesley Stahl: Have some of them died?
Jane Whistler: They've all died.

Lesley Stahl: They've all died.
Jane Whistler: Every one.
Lesley Stahl: Oh my goodness.
Jane Whistler: I'm the only one left.

So what was it that got these people into their 90s...
[Claudia Kawas: So you've never had a stroke.
Jane Whistler: No.]
...while their spouses, friends, and colleagues...
[Claudia Kawas: Never had hardly anything...]
...dropped out along the way?

Claudia Kawas: What's your secret?
Jane Whistler: I wish I knew.

Genes clearly contribute to longevity, says Kawas, but they aren't everything. Jane Whistler's parents both died when she was young.

Claudia Kawas: Well whatever your secrets are, by being in the study, we're gonna try to find 'em out.

Lesley Stahl: So you can go back and look at their medical history?

Claudia Kawas: Everybody in the study filled out that questionnaire in the early 1980s.
And comparing that data to how it’s all turned out has yielded a slew of published findings about behaviors associated with living longer. So what’s the verdict? No surprise: smokers died earlier than non-smokers. And what about exercise?

Claudia Kawas: People who exercised definitely lived longer than people who didn’t exercise. As little as 15 minutes a day on average made a difference. Forty-five was the best. Even three hours didn’t beat 45 minutes--

Lesley Stahl: Oh wow.
Claudia Kawas: --a day.
Lesley Stahl: That’s interesting.
Claudia Kawas: And it didn’t all have to be at once. It could be, for example, 15 minutes of walking and then later in the day gardening or something. And it also didn’t have to be very intense exercise.

"PEOPLE WHO EXERCISED DEFINITELY LIVED LONGER THAN PEOPLE WHO Didn’T EXERCISE. AS LITTLE AS 15 MINUTES A DAY ON AVERAGE MADE A DIFFERENCE. FORTY-FIVE WAS THE BEST. EVEN THREE HOURS Didn’T BEAT 45 MINUTES A DAY."

And non-physical activities -- book clubs, socializing with friends, board games -- all good.

Claudia Kawas: For every hour you spent doing activities in 1981, you increased your longevity and the benefit of those things never leveled off.

The subjects we spoke to had definitely been active, but they didn’t strike us as having lived their lives worrying about their health.

Jane Whistler: I’m not a big vitamin person.
Lesley Stahl: Have you watched, over the years, what you ate?
Lou Tirado: Eh, not-- not really.
Lesley Stahl: Dessert?
Jane Whistler: Sure. I love dessert.

Ruthy Stahl: I always had a glass of wine before dinner. And now I still do, but I can’t quite finish it.

Lesley Stahl: Clean living, huh?
Sid Shero: No.
Lesley Stahl: No? Not clean living.
Sid Shero: I don’t know what clean living is.
Lesley Stahl: What about alcohol?
Jane Whistler: Sure, I love wine.
Lesley Stahl: Do you take vitamins?

Sid Shero: Yes. A lot of ‘em.
So which vitamins helped? Antioxidants?
Lesley Stahl: OK, Vitamin E. We’re sitting at the edge of our chairs. Does it-- did it make a difference? Vitamin--
Claudia Kawas: It was--
Lesley Stahl: --E?
Claudia Kawas: --my favorite, but uh-uh.
Lesley Stahl: No?
Claudia Kawas: People who took Vitamin E didn’t live any longer than people who didn’t take Vitamin E.
They also looked at Vitamin A, C, and calcium...
Claudia Kawas: The short answer is none of ‘em made a difference.
Lesley Stahl: None of them made a difference to living--
Claudia Kawas: In terms of--
Lesley Stahl: --a long life?
Claudia Kawas: --how long you live.
Lesley Stahl: What about alcohol?
Claudia Kawas: Oh. Alcohol made a difference.
But it may not be what you think...
Claudia Kawas: Moderate alcohol was associated with living longer than individuals who did not consume alcohol.
Lesley Stahl: Wait a minute. Ha-- moderate-- alcohol you live longer?
Claudia Kawas: Yes.

Up to two drinks a day led to a 10-15 percent reduced risk of death compared to non-drinkers.
Jane Whistler: Isn’t that exciting?
And any kind of alcohol seemed to do the trick.
Claudia Kawas: A lot of people like to say it’s only red wine. In our hands it didn’t seem to matter.
Lesley Stahl: Martinis just as good.
Claudia Kawas: Yeah.
And there’s good news for coffee drinkers. Caffeine intake equivalent to 1-3 cups of coffee a day was better than more, or none. And if you’re concerned about those bulging waistlines, listen to this.
Claudia Kawas: It turns out that the best thing to do as you age is to at least maintain or even gain weight.
Lesley Stahl: Gain weight?
Claudia Kawas: Uh-huh.
Lesley Stahl: So being--
Claudia Kawas: Really.
Lesley Stahl: --a little overweight is good?
Claudia Kawas: Being obese is never good.
Lesley Stahl: Right.
And being overweight as a young person wasn’t good either. But late in life, they found people who were overweight or average weight both outlived people who were underweight.
Claudia Kawas: It’s not good to be skinny when you’re old.
But living a long time, even if we don’t have to watch our waistlines, isn’t the only thing most of us care about. We want to be all there to enjoy it. And it’s in the areas of Alzheimer’s and dementia that the 90+ study is generating some of its most provocative and surprising findings. We’ll tell about that, and one more thing, romance after 90...
Lesley Stahl: How’s your sex life? You brought it up!
Helen Weil and Henry Tornell: [Laughter]
When we come back.

PART TWO

We are a nation getting older. By the middle of the century, the number of Americans age 90 and above is projected to quadruple. While that’s good news for those of us who want to stick around, it also means more time to literally start to lose our minds. Dementia, including that most dreaded form, Alzheimer’s disease, is a looming threat, and a primary focus of the 90+ study. Participants are asked to donate their brains to the study after they die, so researchers can compare what they saw in life to the secrets buried deep within. And the picture isn’t always matching up, bringing new discoveries and new questions about what may actually be causing dementia in the “oldest old” and what we may be able to do about it.
Lesley Stahl: You know, I think that it was common belief that if you got to 90 and you didn’t have dementia or Alzheimer’s, that you weren’t gonna get it.
Claudia Kawas: Unfortunately. No. I really, really expected to find that. But in our study that's not to happen.

Lesley Stahl: It’s not true.

It turns out the risk of developing dementia doubles every 5 years starting at the age of 65, and it keeps right on doubling. And given the growth in numbers of the oldest old by mid-century...

Claudia Kawas: We are going to have more people with dementia over the age of 90 than we currently have at all ages put together.

Lesley Stahl: And we're not even thinking about it.

Claudia Kawas: We should be.

As charming and engaging as all the 90+'ers we met were, one who we were particularly moved by was 96-year-old Ted Rosenbaum, a former American history teacher who’s been married for 63 years.

Ted Rosenbaum: I was very lucky. So now at this stage of the game, if it’s petering out, just reminiscing about our past is a source of incalculable joy.

Tester: An orange and a banana are alike because they’re both?

Ted Rosenbaum: Fruits.

Ted did well on parts of the 90+ exam, like repeating long strings of numbers, backwards.

Tester: Six, one, eight, four, three.

Ted Rosenbaum: Three, four, eight, one, six.

But when it came time to remember the three words she’d told him just 40 seconds earlier...


...he was lost, and that wasn’t his only problem.

Tester: What is today’s date?

Ted Rosenbaum: Today’s date?

Tester: Uh-huh.

Ted Rosenbaum: Today’s date?

Lesley Stahl: Does he have dementia at this point?

Claudia Kawas: Yes. Ted has--

Lesley Stahl: He does.

Claudia Kawas: --dementia. You know, unfortunately there’s no blood test. There’s no X-ray. It’s an examiner finding out that an individual has problems in two or more of the main things that brain does for them. So that’s where he is.

And what’s perhaps the most devastating is, he knows it.

Ted Rosenbaum: My worst condition is my memory.

Lesley Stahl: When you can’t remember something, what goes on inside you?

Ted Rosenbaum: Terrible frustration and terrible-- you know, it’s having more and more of a negative impact on me, psychologically.

Determining what’s behind his memory loss isn’t easy, since diseases like Alzheimer’s can only be definitively diagnosed in the brain after death. So it’s after the 90+'ers die that a new round of sleuthing begins.
When subjects in the study donate their brains, they come here to neuropathologist Dr. Ronald Kim. He showed us one of the things he always looks for -- the plaques and tangles in the brain that are the tell-tale signs of Alzheimer’s disease.

Ronald Kim: It forms all of these plaques.

Lesley Stahl: All these brown spots are--

Ronald Kim: Yes--

Lesley Stahl: --plaques?

Ronald Kim: Are plaques, that’s correct. And in an individual like this I would expect the patient to be demented.

Tester: Do you read newspapers every day?

Loring Bigelow: Yes, I read ‘em in the evening.

Loring Bigelow spent five years in the study. He passed away last summer, and while Dr. Kim studies his brain, the rest of the 90+ team independently reviews years of his test results and videos to assess whether he had developed dementia, and if so, from what? While early on, his scores were strong...

Tester: Who is our president?

Loring Bigelow: Obama.

Over the years, there was a gradual but unmistakable decline. He’d pick up a newspaper he’d just finished, use the TV remote to try and make a phone call.

Tester: Do you know who is the president?

Loring Bigelow: I want to say Herbert Hoover. I can’t think of it.

[Barbara: Could not remember his age, anxious.]

The consensus here was likely Alzheimer’s - which presumes a brain with plaques and tangles.

Claudia Kawas: Are we ready to hear the truth?

Only then do they open up Dr. Kim’s report.

Maria: Plaques, zero. So, no plaques.

Female voices: Oh, OK. Ah.

Claudia Kawas: Wow!

Maria: No plaques. No cortical tangles anywhere.

Claudia Kawas: Pretty amazing.

What’s amazing is they’re finding that 40 percent of the time in people over 90 -- what doctors would think is Alzheimer’s - isn’t. In Loring Bigelow’s brain, Dr. Kim found something else -- something the 90+ study is finding quite a bit -- evidence of tiny, microscopic strokes called microinfarcts. His brain was full of them.

Ronald Kim: Here is a microinfarct. It’s the hole--

Lesley Stahl: Oh, right here.

Ronald Kim: --which is basically a tiny stroke.

Claudia Kawas: So you've got all this tissue is missing.

Ronald Kim: If you find one, it suggests that you should probably look for others. And some patients may have hundreds or thousands of them.

These microscopic strokes are insidious because people don’t even know they’re having them.
Ronald Kim: They can be totally silent. And slowly but surely over time, you're picking off--you're disconnecting your cortex from the rest of the brain and then you start to become demented. It can look just like Alzheimer disease clinically.

Lesley Stahl: Do you know anything we can do to prevent a-- these mini strokes?
Claudia Kawas: I wish I did. But I will soon, I hope.

Kawas suspects one thing that may cause them is low blood pressure, and she has some evidence. While none of the factors from the original Leisure World study -- vitamins, alcohol, caffeine, even exercise -- seemed to lower people's risk of getting dementia, the 90+ study discovered that high blood pressure did.

Claudia Kawas: If you have high blood pressure, it looks like your risk of dementia is lower--
Lesley Stahl: Lower?
Claudia Kawas: Than if you don't--
Lesley Stahl: High blood--
Claudia Kawas: --have high blood pressure--
Lesley Stahl: Wait. High blood pressure, lower risk of dementia?
Claudia Kawas: In a 90-year-old.
High blood pressure is still dangerous if you're younger. Yet another reason she says it's so important to study the oldest old.

Claudia Kawas: Most of what we know we study in much younger individuals -- in 50, 60, maybe 70-year-olds. And then we just kind of assume that the same thing should happen in older people.

Lesley Stahl: And you're saying we shouldn't?
Claudia Kawas: I think we shouldn't.
Take this next counterintuitive finding -- this time, in the 90+ subjects who have no dementia.

Claudia Kawas: We're finding out that if you die without dementia in this age group about half the time you still have plaques and tangles in your head.
Lesley Stahl: No? So you can exhibit Alzheimer's and not have plaques and tangles half the time, and the reverse--
Claudia Kawas: Both directions.

Lesley Stahl: --you're fine and you do have plaques and tangles? So what do you make of that?
Claudia Kawas: I mean one possibility is that plaques and tangles have nothing to do with it. But it might be that plaques and tangles are very, very important, but just a 90-year-old who has them and didn't develop thinking problems has some way of getting around them that maybe all the rest of us would like to know.

So now they're looking at people with no signs of dementia like Ruthy Stahl, Lou Tirado, Sid Shero, and Jane Whistler to see if they have plaques and tangles, but are not affected by them. There's a new type of PET scan that for the first time makes it possible to find plaques during life, so the 90+ study is engaged in the delicate task of putting 99-year-olds like Jane Whistler, into scanners. Sid Shero, at 92, hopped right in.

Claudia Kawas: Jane and Sid both have very, very, very good thinking, as you saw.
Lesley Stahl: Yes. Definitely.
Claudia Kawas: And it turns out that one of their scans is positive, and one is negative.
She showed them to us one on top of the other. Yellow and red indicate the presence of amyloid plaque.
Claudia Kawas: So this is Miss Whistler, and this is Mr. Shero.

Lesley Stahl: Well, I'm surprised--

Claudia Kawas: Sid Shero--

Lesley Stahl: --having talked to him, that I'm seeing yellow and red here. Kind of stunning.

So what does that mean for Sid? The positive scan means statistically he's at greater risk of cognitive decline, but Dr. Kawas says the fact he's doing so well in spite of the plaque in his brain, and his stroke -- means he may have that something protective and special that could help the rest of us. She says they'll be keeping a close watch on him.

Lesley Stahl: If it's unclear that the pathology hooks up with what you're seeing, what does that mean in your mind?

Claudia Kawas: I think we're looking for too simple an answer. I think we want one thing to explain Alzheimer's. Look at something different. Like what makes skin wrinkle. Well, I mean, getting older makes skin wrinkle. Being in the sun too much makes skin wrinkle. Not taking care of your diet and they put them all together and they all contribute. And I think it might turn out to be the same for our thinking, especially in late life, that it's not just Alzheimer's pathology from plaques or not just microinfarcts, but the number of these hits that you take. And after a while you can't withstand them all.

There's one last thing we wondered about in the over 90 crowd, and that's romance. Helen Weil, 92, and Henry Tornell, 94, both widowed, have been dating for three years.

Lesley Stahl: So do you see each other every day? Several times every day? Once a day? How does it work?

Henry Tornell: She gets one day off a week.

Helen Weil: It's true. Tuesdays.

Lesley Stahl: Tuesdays is a day off.

Helen and Henry love being part of the 90+ study and both have signed up to donate their brains after they die. Henry has only one problem with the whole enterprise -- what the study hasn't asked about.

Henry Tornell: I asked them, "Aren't you gonna ask us any questions about our sex life?" And they said no.

Lesley Stahl: Well, I will. How's your sex life? You brought it up.

Helen Weil: See, he is funny, you know. That--
Lesley Stahl: Well, I don't know. I think-- I'm not laughing. How is your sex life?

Helen Weil: He's blushing.

Lesley Stahl: He's blushing. But is that part of-- do you think that has something to do with--

Henry Tornell: I would say it has a big part.

Lesley Stahl: Helen?

Helen Weil: We are very emo-- we are very affectionate./

Lesley Stahl: But do you think that sex is an important part of staying young?

Henry Tornell: Yes.

The 90+ study has just gotten another 5-year round of NIH funding to delve deeper into risk factors for specific types of dementia, like those microinfaracts, and to search for genes that may be protective, in their continuing search for the secrets of the oldest old.

Claudia Kawas: I really believe that when we learn things from the 90-year-olds. they’re gonna be helping the 60- and 70-year-olds -not just how to become 90-year-olds, but how to do it with style and as good a function as possible.

Lesley Stahl: Well, obviously you’ve already started that by telling us that we should have some wine. That we should have some coffee. Good news--

Claudia Kawas: And socialize.

Lesley Stahl: And socialize.

Claudia Kawas: And exercise.

Lesley Stahl: And gain weight.

Claudia Kawas: And that’s my favorite.

Lesley Stahl: My favorite too, absolutely.

And maybe a little something else!

[Helen and Henry dance]
MORE FROM 60 MINUTES

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7, COMMENTS

ROYSHOVERSR
13 hours ago
Let's see, sex, alcohol, high blood pressure and a little overweight, so far, so good.

LIKE / REPLY

STAGECOACHDRIVER
24 hours ago
I'm 71 but I don't think I want to live into my 90's. I worked hard all my life, raised 2 children, sent them through college and funded the max in my IRAs and 401s. Now my wife and I are living on social security and our savings but the savings won't last 20 years - 10 years at best.

Bill, Reno, NV

LIKE / REPLY

AJSQUAREDeway
37 hours ago
As an economist, I wonder how income/asset levels figure in longevity. Obviously a Laguna Woods resident who has lived there in retirement for 30+ years, retired with a good endowment. How do lifestyle options available to them, quality of medical care, and other factors affect outcomes?

LIKE / REPLY

WHAT_YOU_THINK_YOU_KNOW
May 4, 2014 7:7PM
I would like to know if the study took into account people who were smokers but quit and how their drop in levels of nicotine had an impact on the probability of dementia and alzheimer's setting in.
Also sugar intake would be interesting to know as well, but I would assume when they were young sugar was not as available or abundant.

Great report 60min.

Great story! Two things not mentioned and I’m curious if this plays a role in the aging process; one your attitude about aging and two did these 90+ people have a strong belief in God? Also thought that was very interesting that low blood pressure makes you more susceptible to dementia!

What! don’t you think GOD has a say in how long you will live?

Terrific story. Noticeably absent was whether or not these subjects were on pharmaceuticals. Supplements, such as vitamins were noted but no word on whether or not these 90+ were on numerous medications. Experience from extended care facilities indicate that persons maintained on numerous prescribed medications seem to have less cognitive function than those on no prescribed medications. Obviously serious underlying pathology may make the use of pharmaceuticals necessary. It would be interesting to know the impact of prescribed medications on the story subjects, if any.