

TWO VISITS DOWN, FOUR TO GO



CHRISTMAS CAME EARLY - WE HAVE COMPLETED FOLLOW-UP ONE!

Thanks to our committed participants, ADVANCE has reached another important milestone - we have completed the first follow-up visits, with an amazing 92% retention rate. The second follow-up visits have started, and we have already seen 171 participants (15% of the cohort) for this follow-up. If your visit is due and we have tried contacting you, please get in touch with us to book your appointment.

WHAT WE'VE ACHIEVED SO FAR



On page 2 of this newsletter we dive deep into ADVANCE research. Scroll down to read a reminder of what the study findings so far have shown, what exactly it means that ADVANCE is a longitudinal cohort study, and what the key milestones are expected to be right up to when the study is due to finish in 2040. More details on the study findings can also be found on the [ADVANCE website](#).

LISTENING TO THE PARTICIPANTS

We sent out a survey in October to gather participants' views on ADVANCE communications - ADVANCE newsletter, website, publication summaries and social media channels. Go to page 5 to see what the survey results showed. (Spoiler: our participants are not keen on social media!) On the same page you can also read about the latest ADVANCE Participant Panel meeting which took place in November.

IN OTHER NEWS...

We recently interviewed ADVANCE participant Gregg Stevenson about his ADVANCE experience, rowing and life in general. Scroll down to page 3 to read or watch the interview. On page 6 we tell the incredible story of Hari Budha Magar, the first ever double above-knee amputee to climb Mount Everest. On page 4 you can get to know one of the ADVANCE researchers, Dr Howard Burdett, whose research looks at participants' transition from military to civilian life.

 **Thank you to all our participants for sticking with us for another year. We wish you all the best for the festive season!** 

**Find us on
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ADVANCE: The story so far

Findings to date

Big thanks to all our participants and the ADVANCE team for being part of ADVANCE since the study started in 2014. The participants have now completed the first round of the 5 follow-ups, which means that we can now compare two time points and see if any trends in the data are starting to appear. The follow-up 1 data is being prepared by the ADVANCE team, and our researchers are excited to start analysing the data in early 2024, with some findings expected later in the year.

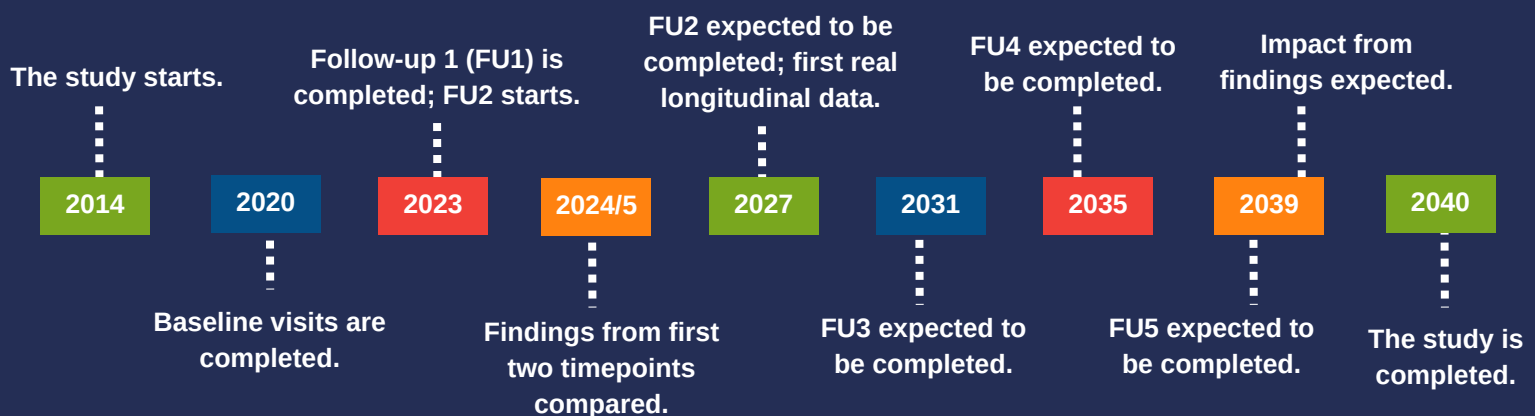


But what about the findings so far from the baseline visits? You might remember seeing the baseline findings in previous newsletters. Below we summarise the key findings from the study to date. A full list of ADVANCE scientific publications can be found on our [website](#), along with short summaries of the key publications. These are the published key findings from the ADVANCE baseline data so far:

- Cardiovascular risk was found to be slightly increased in the injured cohort compared to the uninjured cohort, but the differences are not big enough to warrant any medical treatment at this stage.
- The injured non-amputees were found to have greater rates of depression, anxiety and post-traumatic stress disorder (PTSD) compared to those with amputations and the uninjured participants. Participants with amputations and the uninjured participants reported similar rates of mental health issues.
- Participants with amputations reported greater rates of post-traumatic growth (PTG) compared to the injured non-amputees and the uninjured group. Pain was associated with a higher likelihood of reporting PTG.
- Lower bone mineral density was seen in the hip of the amputated side of participants with amputation injuries compared to the rest of the cohort. No other significant differences in bone health were seen within the cohort.
- Heart rate variability (HRV) was found to be lower in the injured group compared to the uninjured group.

ADVANCE Study timeline*:

* The future dates are estimates only.



What exactly are longitudinal cohort studies?

ADVANCE is a longitudinal cohort study, but what does this actually mean?

A longitudinal cohort study is a study that observes a group of people over time. Making measurements at different time points over an extended period of time allows us to see changes over time, and can help deduct cause and effect relationships. This has many advantages over cross-sectional studies, which observe the participants at only one time point.

Longitudinal studies can be very powerful, and many well known health facts have been deducted from this type of research. For example, the Nurses' Health Study helped uncover the dangers of cigarette smoking as well as obesity. Another famous longitudinal study is the Framingham Heart Study: Much of the commonly known links between diet and exercise and heart health are based on this study.



PARTICIPANT VIEW: Gregg Stevenson

Rank: Sapper - Military Engineering.

When and where were you last deployed? In Afghanistan in 2009.

How did you hear about ADVANCE? I read about it in a military magazine, and it sounded really interesting.

Why did you choose to take part in the study? As well as having a complete health check, it's great research for the future. Exercise was missing from my life, so I decided to do a degree in sports coaching and it's all gone from there really.

How did you find your ADVANCE visits? It's a full-on day, but Stanford Hall is an amazing place, and having access to the facilities is great. We as ex-servicemen and still serving should make the most of our time here.

What impact has ADVANCE had on your life? Coming along to my first appointment made me realise I needed exercise back in my life, and that's what I chose to do, and it led me to some great places. It's benefited me by giving me the kick I needed.

Is there anything more you would like to see from the study? Due to having a master's degree in psychology, I feel like the study only touches on social identity a little. It is important to know your social identity when leaving service or a posting.

What have you been up to since you left active service? After being medically discharged, I had a few tough years - I was heavily medicated due to my injuries, and I gained weight during this time. With support from my family, I then got back to the gym, started studying and started looking after myself again. Fast forward to now, and I am a rower with a world record and due to compete in Paris in 2024!



Gregg rowing.

“

I am a big believer in longevity and making the most out of life. ADVANCE will have a big impact if the participants stick with the study.

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Have you got any words of wisdom for your fellow participants? I am a big believer in longevity and making the most out of life. ADVANCE will have a big impact if the participants stick with the study. The study outcomes will be amazing for future serving men and women.

What's your favourite way to spend your weekends? With my family, watching my boys play sports.

What are your top film and book of all time? Top film has to be “Forrest Gump”. The best book I've read is “Legacy” by the All Blacks James Kerr. It has some great lessons for life in general.

For a recorded version of our interview with Gregg, click on the videos below. More ADVANCE videos can be found on the [ADVANCE YouTube channel](#).

The full interview: Gregg Stevenson



MEET THE TEAM: Howard Burdett

What is your role within ADVANCE? I am a researcher at King's Centre for Military Health Research, working mostly as part of the [ADVANCE-INVEST](#) study on transition from military to civilian life.

What jobs did you have before joining ADVANCE? The highlights: I was originally a biochemist, then a lawyer. After that I was at the Surgeon General's Department (as it was) in MoD briefly which brought me to King's College to do a PhD in epidemiology on transition of veterans and the impact of the resettlement process.

What do you enjoy most about your job? As someone with a dreadfully brief attention span, I like that my typical day contains a great many activities: performing analysis, writing up for publication, teaching students, and so many other peripheral tasks.

What is the most interesting thing about your research? When my analyses don't turn out as I expect. While it's important to perform analyses which prove things you already thought – i.e. providing evidence for “common sense” – it's the ones that go somewhere else which really make you think.

What is the biggest challenge of your ADVANCE role? Following on from my point on what I enjoy – balancing all the different things I need to keep spinning!

If you could see all our participants together, what would you say to them? Simply, thanks for turning up. I see a lot of data at my end, and am keenly aware that that's the product of a lot of folks putting in a lot of time and effort to keep coming back, often from a long way away, to provide us with the data I work on.

What is your favourite meal? Burger and chips. Great on the tongue, great on the soul.

What is your favourite drink? Whatever cocktail I threw together from things I found in the cupboard.

What's the last book you read? Soji Shimada's “*Murder in the Crooked House*”. It's a Japanese locked-room mystery – they often have solutions that are WILD, this one no exception.

You are stuck on a desert island - who are you taking with you? My wife is the only person who could keep me functional.

What was no. 1 in the UK charts on the day you were born? Apparently it's Lena Martell's “*One Day At A Time*”. I have no idea what that is, and am crushed on looking this up to discover I barely missed out on the Buggles.



Howard in his favourite accessory.

ADVANCE around the world

ADVANCE researchers are honoured to have been invited to present ADVANCE findings at various meetings around the world in 2023.

In August 2023, ADVANCE Lead Investigator Gp Capt Alex Bennett and ADVANCE postdoctoral researcher Dr Fraje Watson attended the Military Health System Research Symposium in Orlando, Florida. Alex presented an overview of ADVANCE findings to date, and Fraje presented her research on osteoarthritis in the ADVANCE cohort. Alex and Fraje are pictured at the conference on the right. Alex also attended the “*Warrior Care in the 21st Century*” meeting in Dusseldorf, Germany, in September.

Other conferences have included Dr Dan Dyball attending the CIMVHR 2023 conference in Canada in October to present his ADVANCE research on post-traumatic growth as well as suicidal ideation. At the same conference, ADVANCE researcher Dr Susie Schofield presented ADVANCE lung function data.

ADVANCE PhD student Rabeea Maqsood has also presented her ADVANCE research on heart rate variability at different meetings this year, including the Society for Social Medicine & Population Health Annual Scientific Meeting 2023 in September. Rabeea is pictured on the right.



ADVANCE communications survey

We sent out a survey to all participants in October to find out your views on ADVANCE communications - our newsletter, website, one-page publication summaries and social media channels. This was done to help us focus our efforts on the right comms channels and make improvements where needed.

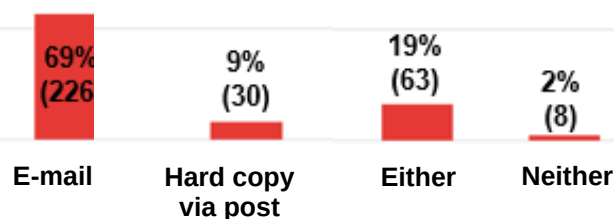
Thank you to the 351 participants who responded! This gave us a 31% survey response rate.

Some key takeaways from the survey results were:

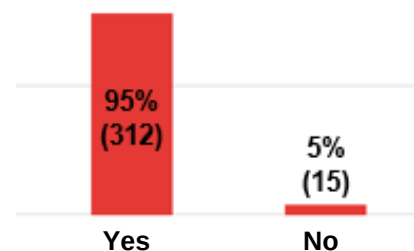
- The newsletter received a lot of positive feedback and seems to be the most popular ADVANCE comms channel amongst participants.
- A common request was to see more info/news about the study findings.
- 57% of people who responded weren't aware of the ADVANCE publication summaries. (They can be found [here](#)!)
- It seems like a lot of our participants are not frequent social media users.

If you would like to learn more about the survey results or give feedback, please get in touch with us using the contact details found on the first page and last page of this newsletter.

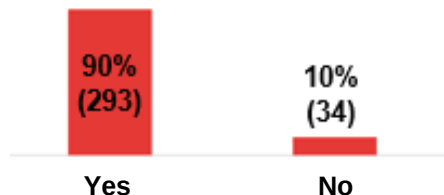
Would you prefer to receive the newsletter via e-mail or a hard copy via post?



Are you aware that ADVANCE releases a newsletter?



Have you ever read any of the ADVANCE newsletters?



The next step is for the ADVANCE team to take forward all the feedback and make any necessary changes.

90% of those who responded to the survey said that they have read the ADVANCE newsletter.

ADVANCE Participant Panel meeting

The ADVANCE Participant Panel had an online meeting on 14th of November. Huge thanks to those who attended and contributed!

There were three items on the agenda this time: (1) scope of ADVANCE core investigations, (2) ADVANCE TBI study, and (3) ADVANCE communications survey.

Prof Anthony Bull - the Imperial College lead for ADVANCE - attended to talk about ADVANCE core investigations. One of the discussion points was the potential for ADVANCE interventional studies. ADVANCE is currently an observational study, which means that we merely observe the participants rather than offering treatment or interventions. (Although any significant findings are, of course, flagged with the participants!) The panel's response to potential interventional studies was positive. Prof Bull also asked the panel's views on engaging with broader beneficiaries of ADVANCE, such as other big health studies, as well as seeking the participants' thoughts on expanding core ADVANCE tests. These suggestions received a positive response from the panel.

Dr Neil Graham from the ADVANCE TBI (traumatic brain injury) study also attended the meeting. The panel fed back their views on the TBI study, including how to improve the MRI scan experience and how to feed the TBI results back to the participants. Potential further TBI investigations were also discussed.

The ADVANCE Communications Survey findings were presented to the panel, and the panel members shared their thoughts. More details on the survey results can be found above.

The ADVANCE Project Board and wider ADVANCE team will consider the Participant Panel's feedback and take actions forward. We will report on progress in future newsletters.



Hari Budha Magar - Breaking barriers and climbing mountains

The stories of ADVANCE participants continue to inspire and amaze us. One such participant is Hari Budha Magar.

From growing up in Nepal, amidst a civil war, to being the first double above-knee amputee to climb Mount Everest, Hari's story is both encouraging and life-affirming.

Hari joined the Royal Gurkha Rifles at 19, being one of only 230 successful applicants out of a total of 10,000. In 2010, whilst on patrol in Afghanistan, he tragically lost both his legs to an improvised explosive device. Difficult times followed. "Everybody in life goes up and down, and when they're low, that's the time they need help: family, friends, community, regiment, and charity. It's make or break. I was privileged to serve in the army and had good prosthetic legs. I was treated and rehabilitated by Defence Medical Rehabilitation Centre and the charity Combat Stress. Slowly I started doing sports. It was through golf and the On Course Foundation that I started to get my confidence back and I began to see what I could do physically."

Fast forward to May 2023, and Hari completed the incredible feat of becoming the first ever double above-knee amputee to climb Mount Everest.



Hari is now on a mission to change the way people with disability are perceived and how they perceive themselves. "We should no longer be seen as being poor, miserable and living off benefits. We can be successful and live a happy and meaningful life. But changing that perception will be a bigger battle than climbing Everest."

Hari is planning to conquer more mountains - Denali in Alaska and Aconcagua in Argentina in 2024, followed by Puncak Jaya in Indonesia and Mt. Vinson in the Antarctic in 2025. We wish him all the best for these exciting challenges, and can't wait to hear all about them!

You can find out more about Hari's story and the work he does on his [website](#).



Welcoming our newest, and smallest, team member

Congratulations to our ADVANCE radiographer Sam and her family for the arrival of their beautiful baby girl in October. As you can see, it's hard work being small and cute. All the best to Sam for her maternity leave!

Hello and goodbye

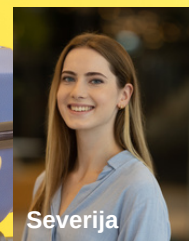
This month we are sadly saying goodbye to two ADVANCE team members - Fearghal Behan and Vlad Pop. Fearghal has been a

key member of the research team, focusing on bone health in the ADVANCE cohort. And you might have had a call from Vlad to book your ADVANCE visit. All the best to both - we will miss you!

But once again, we are excited to welcome some new faces to the team. Farheen Dairkee joined the ADVACNE data team in September as data manager. Severija Juškaitė also joined in September. She is a research assistant, mainly responsible for participant bookings and admin. A warm welcome to both!



Farheen



Severija

Seasons Greetings from the ADVANCE Team!



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