

2019-2021 Stroke FAST Campaign Evaluation

Interim report

May 2022

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ISBN(s): 978-1-99-003932-4

Citation: Nicolson, M. (2022). 2019-2021 Stroke FAST Campaign Evaluation: Interim report. Wellington, New Zealand: Te Hiringa Hauora | Health Promotion Agency.

Acknowledgements

Te Hiringa Hauora would like to thank the following people and organisations for their contributions to this research: the respondents who took the time to participate; NielsenIQ for the national survey data collection and analysis; St John New Zealand for providing access to 111 calls data; FCB New Zealand; Alice Kim (Biostatistician, University of Otago) for her statistical expertise; the Stroke Foundation NZ; and the Ministry of Health. Thank you also to Craig Gordon and Emma Bailey for their peer review.

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May 2022

KEY FINDINGS

While the total number of survey respondents knowing that any one sign of stroke is required before calling 111 has significantly increased between pre and post-campaign surveys, 41% of survey respondents still believe more than one sign is required, or are unsure.

Knowledge that 'T' stands for 'Time/Take action' still has the lowest awareness of all letters in the FAST acronym. Pacific respondents had the highest awareness of what 'T' stands for compared to Māori and non-Māori/non-Pacific respondents.

The 2020/21 FAST campaign appears to have been particularly effective in increasing awareness of stroke among Pacific peoples. This is demonstrated by increased awareness of signs of stroke promoted in the FAST message, increased awareness that only one sign of stroke is required before calling 111, and increased awareness of the FAST campaign for Pacific survey respondents. Awareness of signs of stroke promoted in the FAST message is now similar for Māori, Pacific peoples, and non-Māori/non-Pacific respondents.

The new digital content released in burst three had a strong impact with the audience. The engagement with the new stories was substantial with over 960k views, over 6k reactions, 1000k shares and 400+ comments.

The St John Ambulance Service data from 111 calls has demonstrated the long-term impact of consecutive campaigns. Each campaign is associated with an increase in the number of 111 calls for suspected stroke, and the average number of daily calls has increase over time. This analysis indicates the increase in calls is likely due to the impact of successive national campaigns, rather than that of an underlying positive trend over time.

Further funding for the FAST campaign would provide opportunity to continue to raise awareness of signs of stroke, and the need to act fast and take action immediately. This would ultimately give more stroke survivors a better chance of recovery.

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BACKGROUND

The FAST campaign is a partnership between Ministry of Health, Te Hīringa Hauora, and the Stroke Foundation NZ. Internationally renowned, the FAST mnemonic helps people recognise the key signs of stroke, and prompts people to call 111 immediately. After successful annual Stroke FAST campaigns since 2016 (Gordon et al., 2019), the Ministry of Health approached Te Hīringa Hauora and the Stroke Foundation to work on the Stroke FAST campaign across three financial years: 2019/20, 2020/21, and 2021/22.

This campaign supports the improvement in outcomes for survivors of stroke related events.

The primary aim is to:

- Reduce inequities in stroke outcomes for Māori and Pacific peoples
- Continue to raise awareness of the signs and symptoms of stroke, and
- Empower people to act fast by calling 111 immediately if they suspect someone else, or themselves, of having a stroke.

The primary audiences are:

- Those within proximity to at-risk Māori and Pacific peoples aged 40-65 years, and
- Priority DHB regions¹: Northland, Counties Manukau, Waikato, Lakes, Tairāwhiti and Whanganui.

The secondary audience is all New Zealanders.

CAMPAIGN ACTIVITY

FAST campaign activity in 2020/21 occurred in bursts over 12 months between September 2020 and September 2021. There were three bursts.

Burst 1: 28 September 2020 to 29 November 2020

- Burst 1 was a continuation of the existing content and stories and followed the promotional format of the previous years, primarily via traditional channels television, radio and print with digital elements. This burst was delayed from early 2020 until September 2020 due to the COVID-19 outbreak.

Burst 2: 22 February 2021 to 28 March 2021

Burst 2 was a continuation of the existing content and stories, however the digital channels (e.g. social media) were prioritised, and traditional channels deprioritised (e.g. television, radio, and

¹ The first five of these regions have been prioritised as they have high populations of Māori and Pacific peoples. Whanganui is included as a region that already has strong regional activity and will work alongside other regions.

print). This was due to the need to invest in regional approaches for 2022, and the creation of new content. This was the first time the campaign didn't utilise TV since 2016. Burst 3: 31 May 2021 to 12 September 2021

- Burst 3 saw the launch of new content which included three new stories focusing on the priority audiences. Again this burst prioritised digital channels with traditional channels remaining secondary. Examples of the campaign material can be seen in the appendices.

There will be further campaign activity in early 2022 and more concentrated activity in the six priority regions with bespoke community approaches. Regional approaches are prioritised for this campaign as part of a multi-level approach. This involves collaborating with community providers and supporting training, talanoa and wānanga. The focus in the regions will be to work with communities to develop effective and sustainable regional approaches to FAST promotion.

DATA SOURCES

Over the course of the FAST campaign, Te Hiringa Hauora is monitoring the impact of the campaign through effects on 111 ambulance calls for stroke, and levels of stroke awareness and knowledge through national surveys.

This interim evaluation report contains summary data from:

- National FAST survey: pre and post campaign surveys 2020/21²
- Media agency data: available for Burst 2 and Burst 3 2020/21, and
- Longer term data presented for the 2017 and 2018 campaigns from St Johns Ambulance 111 calls from March 2017 to June 2020³.

Additional analysis to be included in the final report will include:

- Updated St Johns Ambulance 111 analysis to include 2020/21 campaign period
- Updated media agency data
- Additional wave(s) of survey data to be completed in early 2022, and
- Regional activity analysis.

² Note that this report does not discuss results from the FAST surveys in 2017 and 2018. There were methodological changes across these surveys, so results from each survey cannot be reliably compared.

³ Note that we do not currently have 111 data analysis available for the 2020/21 campaign. These data from 2017 and 2018 campaigns show the impact of consecutive campaigns.

EVALUATION OF 2020/21 FAST CAMPAIGN

PRE- AND POST- CAMPAIGN NATIONAL SURVEY

Survey Methodology

The pre-campaign survey was in field from 13-26 August 2020, prior to Burst 1. The post-campaign survey was in field 22 September to 5 October 2021, after Burst 3.

The survey was an online survey via external Nielsen partner panels. New samples were recruited at each time point.

Table 1. Sample size

Pre-campaign	Post-campaign
n = 1,200 Sample composed of: n = 599 from 6 regions n = 601 from the rest of New Zealand n = 305 Māori, n = 295 Pacific peoples, n = 600 non- Māori/non-Pacific	n = 1,200 Sample composed of: n = 600 from 6 regions n = 600 from the rest of New Zealand n = 300 Māori, n = 297 Pacific peoples, n = 612 non- Māori/non-Pacific

Total response ethnicity was used for analysis and prioritised ethnicity was used for weighting. The total results were weighted by age, gender, region, and prioritised ethnicity to be representative of the total New Zealand general population aged 18+.

All differences reported are statistically significant at the 95% confidence level.

Results

This campaign has had a noticeable impact on Pacific audiences, demonstrated by increased awareness of signs of stroke, increased awareness that only one sign of stroke is required before calling 111, and increased awareness of the FAST campaign for Pacific survey respondents.

Increased awareness in signs of stroke for Pacific respondents.

Awareness of signs of stroke promoted in the FAST campaign have increased for Pacific respondents. Awareness of these signs is now similar for Māori, Pacific and non-Māori/non-Pacific respondents. Pre-campaign, Pacific respondents had lower awareness for numbness or weakness of the face, arm or leg (Figure 1), and sudden confusion, trouble speaking or understanding speech (Figure 2), compared to non-Māori/non-Pacific respondents.

Figure 1.

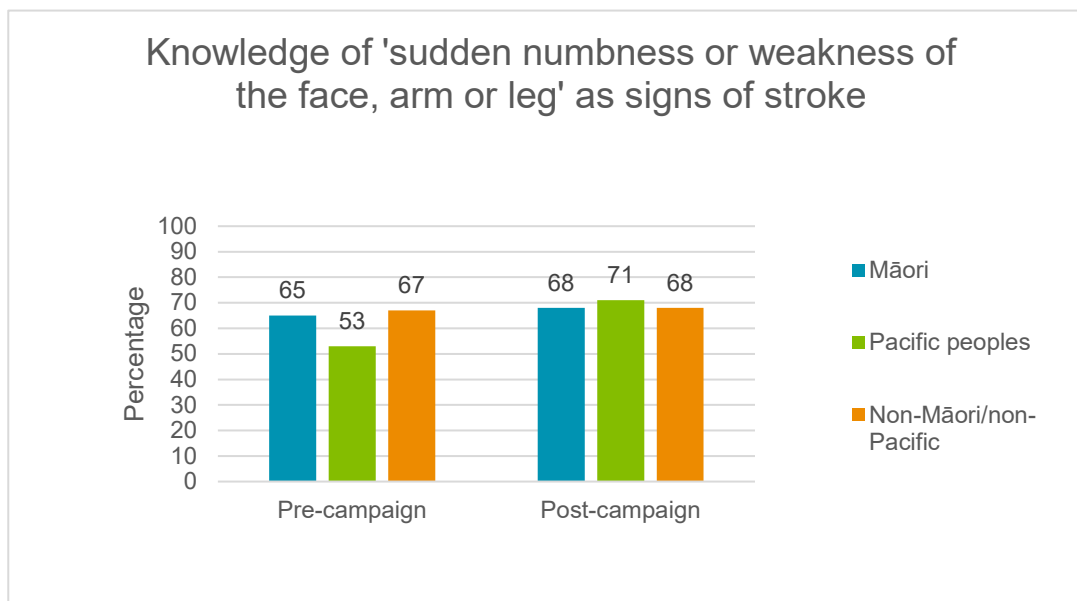
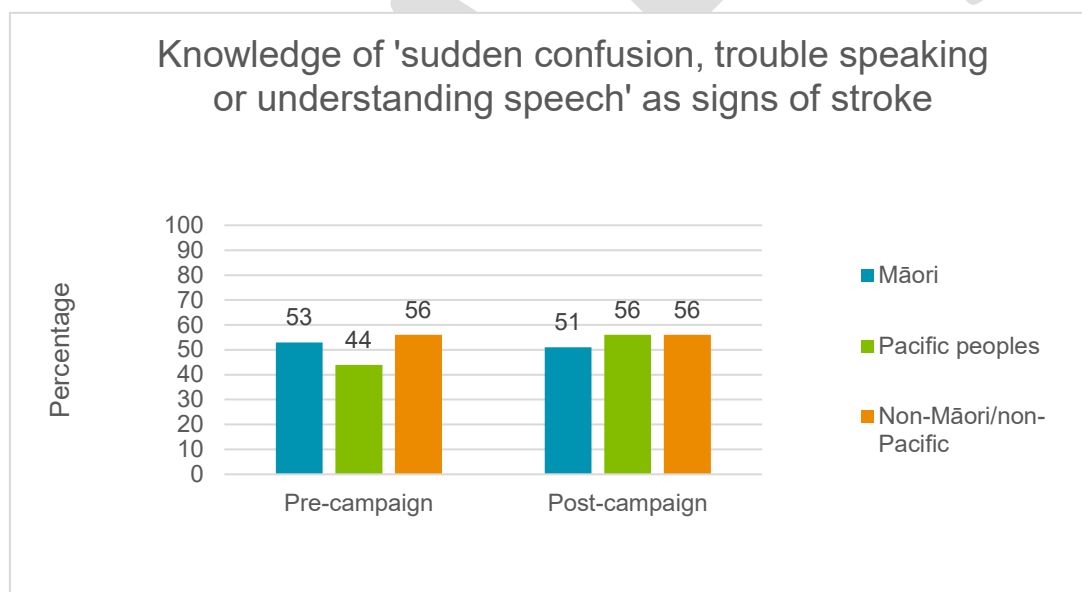


Figure 2.



More people are aware that any one sign of stroke is required before calling 111.

Post-campaign, 59% of all respondents said any one sign of stroke is required before calling 111, compared to 53% of respondents pre-campaign. However 7% of people are still unsure, and 34% of people believe more than one sign of stroke is required before taking action. For Pacific respondents, knowledge that any one sign of stroke is required before calling 111, increased from 39% pre-campaign to 49% post-campaign.

Unprompted awareness of the FAST campaign has increased for Māori and Pacific peoples and is now similar to non-Māori/non-Pacific respondents.

Pre-campaign, 36% of Pacific respondents had seen or heard of the FAST campaign, compared to 54% post-campaign. Pre-campaign, 48% of Māori respondents had seen or heard of the FAST campaign, compared to 60% post-campaign. There was no significant increase for non-Māori/non-Pacific respondents pre (51%) to post-campaign (56%).

Prompted awareness of the FAST campaign increased for Māori respondents from 44% pre-campaign to 60% post-campaign.

Prompted awareness means that respondents were shown the FAST campaign image, and responded that they had seen this before. There were no significant changes from pre- to post-campaign for other groups. Prompted awareness remained stable for Pacific peoples (47%) and non-Māori/non-Pacific (45%).

Figure 3. The FAST image shown in the survey for the prompted awareness of campaign question

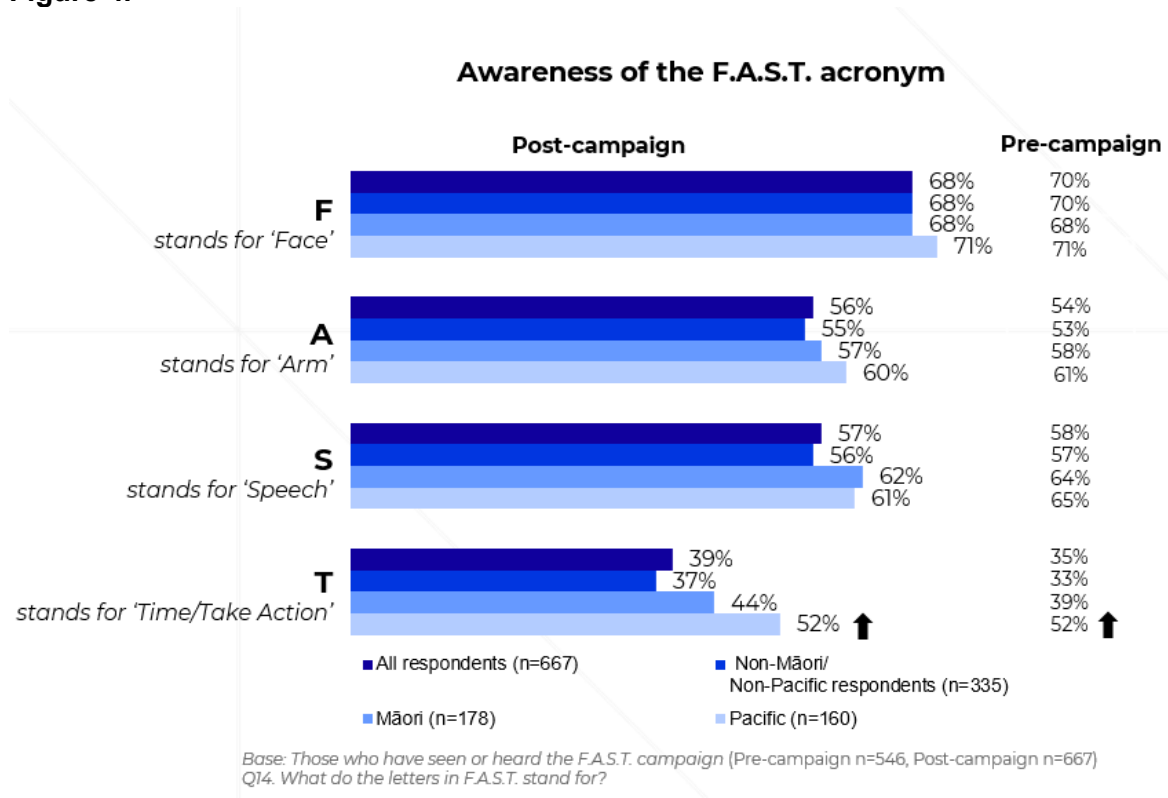


The differences between prompted and unprompted awareness of the FAST campaign may reflect the different exposure respondents had to campaign material. The new campaign videos featured stories, and the radio advertising was audio only. The static images produced for the campaign featured people and messages, including the FAST image, but the FAST image was not always the dominant feature (see Appendices for examples).

Awareness that 'T' stands for 'Take action' is still higher for Pacific respondents (52%) than for non-Māori/non-Pacific respondents (37%). However 'T' has the lowest awareness of all letters in the FAST acronym for all respondents.

There was no significant increase in awareness for what the letters F, A, S and T stand for from pre to post-campaign (see figure 4). Levels of awareness maintained across the campaign period. Overall awareness of 'Take action' is lower than the other letters for all ethnic groups. Pacific peoples have a statistically higher awareness of 'T' for 'Take action' than non-Māori/non-Pacific peoples however this was also statistically higher at pre-campaign.

Figure 4.



Note: In Figure 4 the black arrow signifies a statistically significant difference compared to non-Māori/non-Pacific respondents.

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MEDIA AGENCY DATA

Audience research in 2021 (Glasshouse Consulting, 2021a) shows that audience attention has transitioned from traditional media (TV, radio, print) to new media (social media, internet search etc). This provided good rationale to share campaign activity with audiences in different ways than tried previously. In particular, Pacific audiences are more likely to use all types of digital media each day, and less likely to use nearly all types of traditional media (including TV, radio, and newspaper) than the general population⁴ (Glasshouse Consulting, 2021c). Māori audiences are also more likely to use digital media than traditional media compared to overall New Zealanders, with on-line video attracting the largest Māori audience each day (Glasshouse Consulting, 2021b).

Consequently there was a shift to using more social media and video based stories for this campaign, as these resonate better with the priority audiences. FCB New Zealand provided data to show interactions with the campaign material by the audience. These data include social media, YouTube, radio and internet search data. These data sources show the reach⁵ and interactions that the audience had with the campaign material (table 2). Burst three had noticeably higher numbers of interactions with the audience than burst two. This high reach and engagement with the burst three content demonstrated these new stroke survivor stories were reaching the audience more effectively. Table 2 shows that social media (Facebook and Instagram) and YouTube have much higher reach with audiences than radio.

Table 2. Media agency summary data

Media type	Burst 2 ⁶	Burst 3
Facebook and Instagram <i>Stroke survivor stories</i>	1.4 million impressions ⁷ 447,840 reach 2,407 reactions ⁸ 97 comments 735 shares	2.7 million impressions 814,150 reach 6,452 reactions 232 comments 1,247 shares
YouTube <i>Stroke survivor stories</i>	1.3 million impressions 540,000 completed views 905 clicks to website	2.07 million impressions 595,000 competed views 1,299 clicks to website

⁴ New Zealanders above 15 years of age

⁵ Reach is the number of people who may have seen our content.

⁶ Burst one analysis information has been re-requested from the agency.

⁷ Impressions refers to the number of times someone sees our content in their newsfeed.

⁸ Reactions are responses to a post or ad where a person indicates their feeling about the content of a post or ad, for example a 'like' on Facebook.

<p>Radio</p> <p><i>Advertising on regional radio stations (including Breeze, Mai FM, Ngā Iwi FM, and Radio Samoa) with high listenership among Māori and Pacific peoples.</i></p>	<p>Reached approximately 60,000 people</p> <p>2.6 Frequency - on average listeners heard the ad 2.6 times per week</p>	<p>Reached approximately 60,000 people</p> <p>2.1 Frequency</p>
<p>Internet search (keywords and terms we pay for to appear higher in search results, e.g. AdWords) ran across the burst periods. Ads delivered 134,000 impressions and of those, 24,100 people clicked through to the Stroke Foundation website. This was a high click through rate of 17.95%.</p>		

The Stroke Foundation Facebook page shared stroke survivor stories. The following are examples of comments on these videos:

“Thanks [for] sharing[,] thankful [I’m] still here[,] it] happened just before going to work[. I] had tea drop[ped] my spoon on floor, bent down to pick it up[,] my hand was a rubber duck[,] no control[,] command of picking up spoon to hand was not responding. [I was] not understanding what was going on[,] rang my brother all the way in Rotorua and they rang ambulance.. Happy your recovering godbless [sic]xxx”

“Totally understand, I had one if it wasn't for one of my mate's ringing 111 in that first five minutes it could [have] ended bad for [me] but I spent 11 days in hospital and was back at work in two week, thanks Brother.”

“Thanks for sharing I wasn't aware it could hit you at any age thinking it was mainly our older generation that happened to as past experiences had shown that but being to understand it now little more aware now.”

Many responses to videos were in different languages. [This video](#), focused on a Samoan stroke survivor, had over 90% of the 120+ responses in Samoan.

ST JOHN AMBULANCE SERVICE DATA

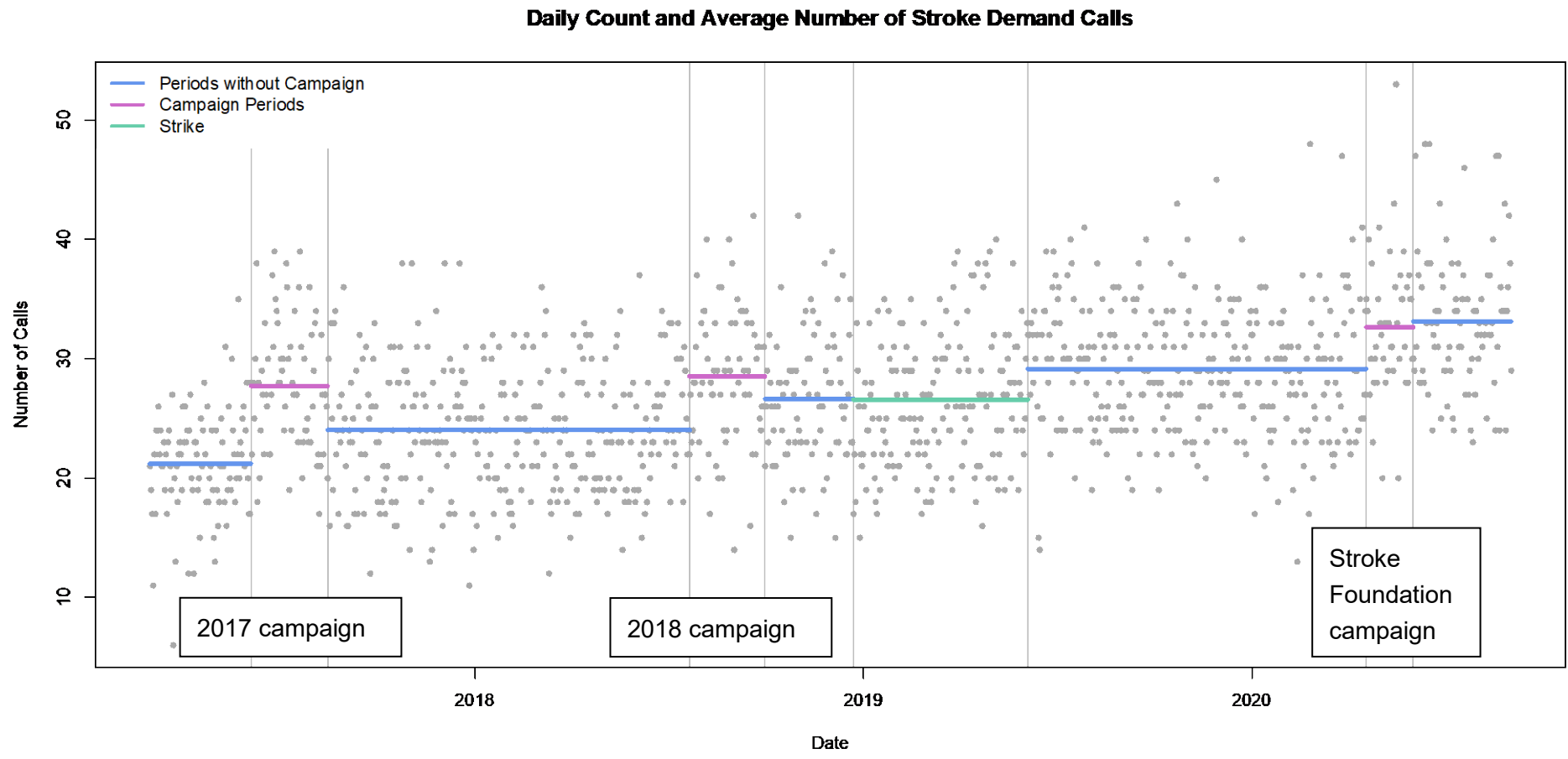
111 calls for stroke to the St John Ambulance Service demonstrate the long term impacts of the campaign. Analysis has been completed on 111 calls for stroke across the period from March 2017 to June 2020. This time period covers the 2017 and 2018 FAST campaigns, and a Stroke Foundation campaign⁹, but not the 2020/21 campaign period. Further analysis will be completed in 2022 to include the 2020/21 campaign period.

Observing the St John Ambulance Service 111 calls data from 2017 and 2018, there are increases in the number of 'stroke demand' daily calls during campaign periods. 'Stroke demand' calls are 111 calls that are coded as stroke at the time of the call due to the description of symptoms by the caller (also referred to as suspected stroke in this report). Successive campaigns over the years seem to have led to increased average daily number of 111 calls for suspected stroke. Statistical analysis has confirmed that this increase is most likely to be a direct effect of consecutive campaigns run consistently over years, rather than a reflection of an underlying trend in suspected stroke calls.

Figure 5 shows St Johns Ambulance 111 calls for suspected stroke over this period. The grey dots are individual daily calls. The lines represent averages of the number of daily calls across that period. The pink lines represent campaign periods. The blue lines represent periods without a campaign. The green line refers to a strike of St Johns Ambulance staff during that period (not all 111 codes were coded during this period).

⁹ This Stroke Foundation campaign was run in addition to the national campaign. The campaign was run during the first national Covid-19 lock down. There was concern that people would delay or not call 111 if they suspected a stroke when hospitals started becoming overwhelmed with Covid-19 cases.

Figure 5. Average Daily Counts of Stroke Demand Calls



SUMMARY

Whilst this interim report highlights some successes of the FAST campaign so far, in particular with Pacific people's audiences, there are still further improvements to be made. Knowledge of signs of stroke can be further improved for Māori and for Pacific peoples. In particular, knowledge of 'T' for 'Take action' has not shown significant increases in the recent campaign. In addition, there is still a large proportion of people that believe more than one sign of stroke is required before calling 111. Increasing the proportion of people that know that any 1 sign of stroke is required before calling 111 is an important focus for future campaign activity. Given the outstanding reach achieved with the new material across social media, there is an opportunity to leverage off this success to boost awareness of 'take action' and the message around 'any one sign of stroke'.

In the first two quarters of 2022, further FAST campaign activity is planned. This will include working closely with the six priority regions and adjusting the campaign material in response to the learnings from this interim evaluation. Further analysis is also planned to evaluate the approach, including data from further national surveys, 111 stroke call data and media agency data.

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Gordon, C., Bell, R., & Ranta, A. (2019). Impact of the national public 'FAST' campaigns. *The New Zealand Medical Journal*, 132(1507), 48–56. <https://journal.nzma.org.nz/journal-articles/impact-of-the-national-public-fast-campaigns>

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APPENDICES

Appendix 1. Examples of the Videos shared in burst two of the social media campaign activity

Video 1: [Kaumolangi's story](#)

Video 2: [Dianna's story](#)

Video 3: [FAST ad](#)

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Appendix 2. Examples of the videos shared in burst three of social media campaign activity

Video 1: [Phoenix](#)

Video 2: [Raoul](#)

Video 3: [Va'alelei](#)

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Appendix 3. Examples of static images shared on Instagram during burst two



Appendix 4. Examples of static images shared on Facebook during burst 2

