I TE RŌPUU WHAKAMANA I TE TIRITI O WAITANGI **WAI 2500**

IN THE WAITANGI TRIBUNAL **Wai 2005**

KEI RARO I TE MANA O	te ture o te Tiriti o Waitangi 1975
ME	
I TE TAKE O	te pakirehua Wai 2500 mō ngā kereme e pā ana ki te Military Veterans
ME	
I TE TAKE O	he kereme nā Denise Anne Egen mō ia me tōna whānau

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AMENDED BRIEF OF EVIDENCE OF JUDY BLAKEY MNZM, PhD IN SUPPORT OF CLAIMANT

Dated: 11 April 2025

Presented for filing by:

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TĒNĀ, E TE RŌPU WHAKAMANA O TE TIRITI O WAITANGI

INTRODUCTION

1. I was born in Pietermaritzburg, in KwaZulu-Natal, but spent my early years growing up in the Zambian Copperbelt town of Ndola. My mother was a first wave feminist and graduate of the University of the Witwatersrand in Johannesburg, who worked as a teacher, a social worker and became a local body politician in the 1950s. My father graduated as an electrical engineer from the University of KwaZulu-Natal Durban, then signed up to train as a pilot in the South African Air Force during World War II and served in North and East Africa. After the war he transitioned back into civilian life to become a business and community leader in Zambia, where he was involved in charitable fund raising that supported ex-service veterans and their whānau.

2. I have read the code of conduct for expert witnesses, Schedule 4 of the High Court Rules 2016.

3. My undergraduate degree from the University of Kwa-Zulu Natal in Durban was in Economics and Industrial Organisation and Management. I pursued postgraduate studies in Psychology; initially through the University of South Africa's distance educational courses, and then at the University of Cape Town, where I completed a Master's degree and an internship in neuropsychological research.

4. In 1988 our family migrated to settle in Te Whanganui a Tara Wellington. The following year we relocated to Te Papaioea Palmerston North, where I enrolled in the Palmerston North College of Education to train as a secondary school teacher, and graduated in 1989 with a Diploma in Teaching. I taught for a decade, during which time I also completed a post graduate diploma in education through Te Kunenga ki Pūrehuroa Massey University.

5. I was employed by Te Kunenga ki Pūrehuroa Massey University, School of Psychology, between 1999-2004. My employment included four short fixed term contracts, some of which were contemporaneous: (i) The Hearing Aid Research Project ("**HARP**") Research Officer contract (March 1999 – February 2001); (ii) a Conjoint Polytech Coordinator contract (February 2001 – November 2002); (iii) the NZ Nuclear Test Veterans ("**NZNTV**") Research Officer Project contract (March 2002 – February 2004); and (iv) a Graduate Assistant contract (February 2003 – November 2004). In addition to the veterans' research activities, as a graduate assistant I supported the delivery of undergraduate Psychology papers.

6. In 2008 I graduated from Te Kunenga ki Pūrehuroa Massey University with a PhD in Psychology. My doctoral research explored the psychosocial effects of ageing with hearing handicap (HH) among older New Zealand veterans and their spouses. Using an ecological framework, the research examined how hearing loss and tinnitus impacted veterans' health-related quality of life (H-QoL), social participation, and emotional well-being. A mixed-methods approach included survey data from 671 veterans and their spouses, and identified different coping trajectories for first-time and experienced hearing aid users. Findings revealed that HH exacerbated social isolation for both partners, and negatively affected the veterans' mental H-QoL by limiting their social and emotional agency. The results highlighted the need for improved hearing health policies and culturally responsive communication in healthcare services. They also illustrated the value of incorporating ecological perspectives into health research to enhance our understanding of living with ageing-related hearing challenges.

7. Relocating to Tāmaki Makaurau Auckland's North Shore in 2008, I gained a Certificate of Proficiency (CoP) in Te Kākano (Introduction to Te Reo Māori) at Te Wananga Aronui o Tāmaki Makau Rau | AUT in 2010.

8. Following a decade and a half working as an age-friendly health consumer community advocate in a variety of health care and digital health research settings, I completed a Community-Led Development NZQF Level 5 micro credential qualification through Inspiring Communities and the Otago Polytechnic | Te Kura Matatini ki Ōtago in 2023.

9. This evidence brief provides an overview of research studies reporting on the health and wellbeing of NZNTVs who observed British thermonuclear tests at Christmas Island during the 1957-58 Operation Grapple deployment. The historical monocultural focus of New Zealand veterans' research reveals the need for culturally competent research methodologies that honour Te Tiriti o Waitangi, include te ao Māori perspectives and recruit appropriate cohorts of Māori research participants within veteran respondent samples. Three Massey University multidisciplinary NZNTV Studies conducted during 2002-2005 that explored cytogenetic, self-reported health and psychological effects of potential radiation exposure during the Grapple deployment are scrutinised. Logistical challenges recruiting appropriately matched case-control veteran research participants with constrained resources are discussed. Analysis of how the Government and Veterans' Affairs New Zealand ("**VANZ**") subsequently approached or dismissed certain research findings, especially regarding ionising radiation exposure, provides insights into institutional barriers that the Grapple NZNTVs face. Issues of transparency regarding the composition and expertise of a government appointed Expert Medical Panel ("**EMP**"), and concerns about the scientific peer review processes and the EMP's familiarity with epidemiological rather than innovative cytogenetic research methods are raised. Research reveals how chronic stress and intergenerational trauma contribute to veterans' experience of moral injury alongside traditional combat trauma. However, moral injury is not widely recognised in Aotearoa's veterans' support, although research indicates more effective holistic, culturally informed support systems are needed to address the moral and ethical dimensions of NZNTV service personnel and their whānau; especially for those veterans who identify as Māori, and whose cultural values emphasize the importance of their collective and spiritual well-being.

10. Several main issues emerge within this body of evidence, which includes the voices of deceased NZNTV community leaders to provide authentic contextual details, and highlights the need for a more timely and compassionate duty of care from military authorities. Whilst the issues listed below do not necessarily follow the implied logical numerical sequence in the text, they are woven into the narrative threads that are included:

a. Te Ao Māori perspectives in Veterans' Research;

b. Health impacts of military service for ageing veterans;

c. Intergenerational effects, particularly for veterans exposed to radiation during their deployment;

d. Moral Injury, chronic stress and psychological distress associated with contested health impacts;

e. Challenges conducting Veterans' Research;

f. Barriers to policy and recognition of service-related conditions; and

g. Recommendations for research policy change.

11. The brief begins by focusing on the inadequate inclusion of Māori worldviews, cultural values and Te Tiriti o Waitangi in Veterans' Research. Evidence cited highlights the need for kaupapa Māori research which builds relevant capacity and translates knowledge into impactful actions using coproduction research approaches such as those shared at the Ageing Well Journey From Vision to Reality Ka Mua Ka Muri Symposium[1] held at Te Papa, Wellington, 11-12 April 2024. The long-term health consequences for older veterans include a focus on hearing loss, radiation exposure and psychological distress; and include a consideration of the limited recognition and support that exists for health conditions linked to military service. Intergenerational effects of the genetic and psychological impacts on the descendants of NZNTVs reveal a lack of research and government acknowledgement of those impacts. Moreover, the resulting emotional and psychological burden on veterans and their whānau that are linked to ethical conflicts and lack of institutional recognition, can result in Moral Injury. However, there is inadequate understanding and limited appropriate mental health support for veterans and whānau who are living with Moral Injuries. Historical bias and preference for monocultural biomedical research

[1] For further information see National Science Challenges, *The Aging Well Journey From Vision To Reality Ka Mua Ka Muri Symposium 2024*, accessed at <https://www.ageingwellchallenge.co.nz/symposium-2024/>.

methodologies that exclude Māori perspectives mean Māori veterans are under-represented in existing research studies. Given state secrecy and military officials' reluctance to acknowledge contested illnesses linked to deployment settings, defence and military institutions influence research priorities, which limits independent investigations into veterans' health. Recommendations for change to improve veteran healthcare access and recognition of service-related conditions require more transparent and accountable veteran and whānau-centred research.

Te ao Māori Perspectives in Research

12. As a migrant who has worked in education and health-related research settings I recognise the importance of research processes accommodating and reflecting the diverse cultural differences within Aotearoa's population. Whilst my knowledge of te ao Māori is nascent and evolving, I recognise my responsibilities as a Tangata Tiriti researcher to ensure all research processes I undertake recognise and integrate the principles of te tiriti o Waitangi into the research kaupapa. This section illustrates the need for structural changes in veteran research, to ensure that Māori veterans' unique cultural and historical experiences are respected, and that they receive the recognition, support and care they deserve.

13. In 1999 I was appointed as the research officer for the New Zealand War Pensions ("**NZWP**") funded HARP study, which aimed to glean an understanding of veterans' use of and satisfaction with their hearing devices. Because epidemiological evidence suggests a link between hearing loss and an increased risk of dementia[2], initially a purposive pilot study sample explored whether or not cognitive deterioration associated with ageing affected the participant veterans' self-reported hearing aid use.

14. Within the context of this section both the HARP pilot study and the HARP main study are cited as examples of monocultural veteran research practice.

[2] Danielle S Powell and others *Hearing Loss and Cognition: What We Know and Where We Need to Go,* dated 28 February 2022, accessed at <https://www.frontiersin.org/journals/aging-neuroscience/articles/10.3389/fnagi.2021.769405/full>.

15. It is noticeable that the entire HARP pilot study respondent sample identified as being New Zealanders of European descent, and that despite the late Dr Ephra Garrett's presence in the School of Psychology to nurture building "a Māori dimension into teaching and research"[3] at the time, no specific adjustments were made in the HARP main study's research protocols to support increasing Māori veterans' participation.

16. My doctoral research[4] reconfigured the aims of the HARP project to explore transdisciplinary, cross-sectional insights to enhance our understanding of the frequently obscure psychosocial implications of ageing with invisible hearing losses in the audible world.

17. The positivist western science focus of the HARP research team and the absence of Māori research collaborators meant that the recruitment processes were monocultural, with no consideration accorded meeting any obligations in relation to te tiriti o Waitangi; nor specifically facilitating the inclusion of Māori veterans' or Māori spouses' perspectives. That omission may well have contributed to the fact that just 13 (1.9%) of the 671 veterans identified as New Zealanders of Māori OR European and Māori descent, and 25 (3.7%) of their spouses did.

18. Whilst at the time this approach appeared to be the norm for veterans' research, in 2005, when the New Zealand Health Work and Retirement ("**NZHWR**") study was being designed, a close connection was made with another Massey University longitudinal study that had been running since 1996, and was initially led by Professor Sir Mason Durie and then Professor Chris Cunningham.[5] The "Best Outcomes for Māori: Te Hoe Nuku Roa Māori household study" ("**THNR**") designed a survey sampling and measurement methodology embedded in te ao Māori, which used an over-sampling

[3] Massey University, *Whakapapa, Our History,* accessed at < https://www.massey.ac.nz/student-life/m%C4%81ori-at-massey/ko-wai-m%C4%81tau-o-m%C4%81ori-massey/whakapapa/>.
[4] J A Blakey, *Dyadic Partner Perspectives of Ageing with Hearing Handicap in the Audible World* dated 2007, at chapter 6, accessed at <https://mro.massey.ac.nz/items/bb563238-7c5f-47a4-822e-7684cbc70da8>.
[5] Health and Ageing Research Team (HART) Massey University, *Ageing in Aotearoa, the New Zealand Health Work and Retirement Study,* dated June 2023, at 178, accessed at <https://pdfhost.io/v/qDrGz1jhd_HART_Ageing_in_Aotearoa_EBook>.

approach to ensure any analyses involving Māori had equivalent statistical power as non-Māori.

19. Tā Mason Durie's diverse "Māori @ Massey" strategies subsequently built on Dr Garrett's foundational mahi and expanded awareness of the value of embedding Māori worldviews in research methodologies.[6] Brendan Stevenson's doctoral research and chapter titled "Measuring Māori Identity", in the recent Health and Ageing Research Team's Ageing in Aotearoa E-book, is a testament to Dr Garrett and Tā Mason Durie's seminal strategic leadership to engage Māori perspectives when conducting research.[7]

20. In the late 1990s, Professor Chris Cunningham responded to the New Zealand Government's Strategic Overview for Research, Science and Technology to the year 2010[8], by devising a Framework for addressing Māori knowledge in research, science and technology.[9] Cunningham observed how the government's report categorised Māori traditional knowledge as 'other kinds of knowledge' set in the past; and stated that when considering Māori knowledge "weight has to be given both to past knowledge and to future knowledge."[10] He explained that for Māori, future knowledge stems from the past, from the environment in which it was developed, and "must take cognizance of the contemporary Māori worldview, Māori social and cultural diversity, partnership, protection and redress in terms of the Treaty of Waitangi, and responsiveness in terms of public sector actions".[11] Cunningham also highlighted that the Government's Strategic Overview failed to acknowledge that the mono-cultural reality of science has "been used as an instrument of colonisation in New Zealand

[6] Massey University, *Whakapapa, Our History,* accessed at < https://www.massey.ac.nz/student-life/m%C4%81ori-at-massey/ko-wai-m%C4%81tau-o-m%C4%81ori-massey/whakapapa/>.
[7] Health and Ageing Research Team (HART) Massey University, *Ageing in Aotearoa, the New Zealand Health Work and Retirement Study,* dated June 2023, at 177-184, accessed at <https://pdfhost.io/v/qDrGz1jhd_HART_Ageing_in_Aotearoa_EBook>.
[8] The Ministry of Research, Science and Technology, *The Government's Strategy for Research ,Science and Technology in New Zealand to the year 2010 Strategic Overview,* dated August 1996, accessed at <www.mcguinnessinstitute.org/wp-content/uploads/2021/04/98.-RST-The-Governments-Strategy-for-Research-Science-and-Technology-in-New-Zealand-to-the-Year-2010.pdf>.
[9] Chris Cunningham, *A framework for addressing Māori knowledge in research, science and technology* (Pacific Health Dialogue, Vol 7, No. 1, 2000), accessed at <https://pacifichealthdialog.nz/pre-2013-archive/Volume207/No120Maori20Health20in20New20Zealand/Original20Papers/A20framework20for20addressing20Maori20knowledge20in20research20science20and20technology.pdf>.
[10] Ibid., at 63.
[11] Ibid.

since Pākehā settlement."[12] That oversight totally ignored the impact of one of the essential characteristics of Research, Science and Technology, namely, the hierarchical control patterns within Aotearoa New Zealand that centred on financial accountability and methodological or technological competence.

21. Cunningham's comments about temporal considerations of 'past' and 'future' knowledge foreshadow issues that surface in this evidence brief, in relation to our evolving understanding of the intergenerational impacts on veterans and their whānau associated with the veterans' Operation Grapple deployment. Those intergenerational impacts are linked to the veterans' contested exposures to potentially harmful environmental substances during their Operation Grapple service. In my opinion, Professor Cunningham's observations in the late 1990s were astute and also prophetic, because the research method reviews and implications of constrained veterans' research funding are central to the issues presented in this brief.

22. Aotearoa's Ageing Well National Science Challenge Māori researchers Professor Chris Cunningham and Monica Mercury's 2023 publication "Coproducing health research with Indigenous peoples" offers recommendations and guidelines that facilitate ways of sharing control with tangata whenua in knowledge coproduction processes, that address 'the extractive and oppressive practices of the past,' and honour Te Tiriti principles such as partnership, reciprocity and active protection.[13]

NEW ZEALAND NUCLEAR TEST VETERANS' STUDIES

23. Massey University's multidisciplinary NZNTV Studies[14] investigated the long-term health and psychological effects of radiation exposure on a sample of New Zealand naval veterans who participated in Operation Grapple, a series of British nuclear tests in the Pacific during 1957 and 1958. NZNTV Study A Pilot Project (Psychological Impact) is **attached** and marked "**A**" at page 1 of the **Exhibit Bundle**. Similarly, NZNTV' Study – A

[12] Ibid.
[13] C Cunningham and M Mercury, *Coproducing Health Research with Indigenous People* (Nature Medicine, volume 29, pages 2722-2730, 2023), accessed at <https://www.nature.com/articles/s41591-023-02588-x>.
[14] See R Rowland, L Edwards and J Podd, *Elevated sister chromatid exchange frequencies in New Zealand Vietnam War veterans* (Cytogenetic and Genome Research, 16, pages 248-251, 2007), Wai 2500, #3.1.1(b).

Cytogenetic Analysis is **attached** and marked "**B**" at page 150 of **the Exhibit Bundle**. The research examined genetic damage, increased cancer risks, and broader health complications, alongside the psychological and social impacts of service-related radiation exposure. Findings highlighted concerns about intergenerational effects, the lack of government recognition, and the adequacy of veteran support systems. The studies also underscored the challenges in securing official acknowledgment of the health consequences faced by affected veterans and their families.

24. When I joined the cross-disciplinary NZNTV Study as a Research Officer I suggested to Associate Professor John Podd that the NZNTV Study could adapt and use the HARP study mail out survey templates. He agreed, because it saved considerable time preparing the data collection documents to be submitted to the regional ethics committees for their inspection and approval, before the research could begin. The Research Officer role required that I develop the psychological and health data collection protocols; manage the recruitment of two geographically stratified potential participant pools, one comprising NZNTVs and the other the matched control participants; and then randomly select a geographically stratified sample of 50 NZNTV participants and 50 appropriately matched control respondents, who met the strict inclusion and exclusion criteria related to the cytogenetic testing protocols. Once the participants were selected I mailed out their survey booklets; checked in via phone to ensure they had received them, and answered any queries they may have had. This allowed me to encourage participants to return their surveys in a timely fashion, so I could arrange a face-to-face interview to resolve any missing data in their survey booklet responses, complete a cognitive status test and collect two vials of blood for the cytogenetic tests. To optimise the constrained funding available for the project I volunteered to undergo phlebotomy training at Palmerston North Hospital. Those skills ensured that when I interviewed the research participants face-to-face to complete their psychological profile data collection, I could also take their blood samples for the time-sensitive cytogenetic assay preparation processes that interfaced with the Palmerston North Hospital's Radiology Department schedules. To assist code the 100 research participants' survey booklets and their associated face-to-face

interview data for input to create the respondents' research database I recruited a post-graduate student Rebekah Jourdain.

Werowero: Challenges Faced During the NZNTV Research

25. The research kaupapa was monocultural. Recruitment of the two potential participant pools to randomly select 50 exposed NTVs and 50 age-matched control group volunteers, who met the cytogenetic studies' strict inclusion and exclusion criteria which eliminated other known potential toxic exposures over each participant's lifetime, proved demanding, and took considerably longer than expected.

26. The cytogenetic studies' retrospective observational case-control research design required meticulous attention be paid to the appropriate selection of 50 NZNTVs, who resided in five designated North Island regions (to control for background radiation), and met the study's strict inclusion and exclusion criteria. Selection from a list of NZNTVs who had indicated their interest in participation in the research still required a considerable investment of my time, as prior to confirming their selection, I needed to review their occupational histories to identify any other possible sources of toxic exposure. Nearly two thirds (62%) of the NZNTV sample lived in Auckland (25 NZNTVs) or Northland (6 NZNTVs). Gathering the pool of potential age-matched 'control" volunteers with similar demographic characteristics as the NZNTV participants within each of the five designated North Island regions proved taxing, as recruitment demanded much more active involvement from the Research Officer. I contacted relevant RSA national and regional networks to publicise information about the NZNTV research, and the need to recruit age-matched volunteers who had not served in the navy (to control for possible exposure to ships with any residual radiation contamination). Some suitable potential volunteer participants declined to proceed when they discovered their involvement included the provision of a blood sample for genetic analysis. Publicly accessible information identifying issues associated with testing for gene mutations linked to Motor Neurone Disease includes the reasons that people give for either wanting or not wanting to

know if they have a gene mutation.[15] Similar reasons are likely to have informed those potential volunteers who decided either for or against participating in the NZNTV research. Recruiting sufficient age-matched volunteers in the Auckland and Northland regions proved particularly difficult, and the research recruitment protocols were eventually modified to accommodate this geographic constraint. Rebekah Jourdain's doctoral thesis observed that the age-matched control participants had higher levels of education and were likely to be more altruistic than the NZNTVs, as no benefits accrued to them from their participation in the research.[16] In addition, due to the small sample size I was particularly conscious of the need to minimise any missing data; a concern that demanded time consuming attention was paid to double checking research participants' responses during the data collection phase of the project.

27. Recent publications of a Brunel University of London Research team led by Professor Rhona Anderson, whose researchers were investigating the on-going risk of radiation effects in British Nuclear Test veterans, have reported facing similar recruitment challenges, despite the UK's considerably larger veteran population. For example, Rake et al.'s June 2022 publication describing participant recruitment and sampling processes for a British study that appeared to have been designed, in part, to replicate Al Rowland et al.'s NZNTV research, reported a response rate of 4% when recruiting their study's 42 (from 992) control participants. In comparison, the 49 (from 353) British NTV participants revealed a 14% overall response rate.[17] More recently Lawrence et al.'s January 2024 paper reported: "Despite the measures taken to reduce bias in the recruitment methods, the response rates for providing blood samples were low and so it is possible that those taking part had a particular interest in the study."[18]

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[15] Motor Neurone Disease (MND) Australia, S*ome Issues Associated with Testing for MND Gene Mutations,* dated December 2024, accessed at <https://www.mndaustralia.org.au/mnd-connect/information-resources/familial-mnd-and-genetic-testing>.

[16] R L Jourdain, *Psychological Fallout: the Effects of Nuclear Radiation Exposure,* dated 2009, at 67, accessed at <https://mro.massey.ac.nz/server/api/core/bitstreams/69dd4565-254a-4b80-aa3d-aaf61e8738ee/content>.

[17] C Rake et al, *British Nuclear Test Veteran Family Trios for the Study of Genetic Risk* (Journal of Radiological Protection, Volume 42, Issue 2, June 2022), at 9, accessed at <https://www.researchgate.net/publication/361449589_British_nuclear_test_veteran_family_trios_for_the_study_of_genetic_risk>.

[18] K J Lawrence et al, *M-FISH Evaluation of Chromosome Aberrations to Examine for Historical Exposure to Ionising Radiation Due to Participation at British Nuclear Test Sites* (Journal of Radiological Protection, Volume

28. Given that the Operation Grapple veterans have had to organise and advocate to secure government recognition of the risks associated with their deployment, and on-going support for surviving veterans, widows and their descendants, any future research will first need to rebuild trust, before producing the research agendas with surviving veterans and their whānau. I'm particularly mindful that Māori veterans' experiences of moral injury may also result in them feeling alienated, and therefore reluctant to engage in any further research.

29. Lawrence et al. also observed that the nuclear test veteran participants may "have been more likely to take part if they believed they had been highly exposed to radiation during the tests or, that their family had been adversely affected." These characteristics are likely to reflect the realities of conducting retrospective observational research. In comparison, authorities that commission longitudinal research to track the health and wellbeing of service personnel they recruit avoid having to wrangle managing post hoc selection bias. For example, a 2020 paper that reports on The Norwegian Armed Forces Joint Medical Services' investigation of temporal trends in the 'healthy soldier effect' among 28,300 non-deployed Royal Norwegian Navy personnel, who served between 1950 and 2004, has revealed a gradual erosion but sustained life time presence of the 'healthy soldier effect' over 67 years of follow-up; and that land-based personnel showed stronger and longer-lasting beneficial impacts than the vessel crews.[19]

30. The logistics of arranging multiple research trips to administer the face-to-face interview protocols and collect a maximum of five participants' blood samples per trip was challenging and time consuming. Samples were preferably collected after interviewing the participants in their homes, wherever possible. However, in cases where the participants' veins were too difficult to locate phlebotomists located at local blood collection laboratories were requested to assist. That proved time consuming. Due to time and

44, Issue 2, January 2024), at 12, accessed at <https://www.researchgate.net/publication/377263936_M-FISH_evaluation_of_chromosome_aberrations_to_examine_for_historical_exposure_to_ionising_radiation_due_to_participation_at_British_nuclear_test_sites>.

[19] K J Lawrence et al, *M-FISH Evaluation of Chromosome Aberrations to Examine for Historical Exposure to Ionising Radiation Due to Participation at British Nuclear Test Sites* (Journal of Radiological Protection, Volume 44, Issue 2, January 2024), at 12, accessed at <https://www.researchgate.net/publication/377263936_M-FISH_evaluation_of_chromosome_aberrations_to_examine_for_historical_exposure_to_ionising_radiation_due_to_participation_at_British_nuclear_test_sites>.

resource constraints I was mindful throughout the data collection phase of the need to ensure that I returned from each research trip with the designated interview participants' blood samples.

31. The rigorous double blind research protocol adhered to during the data collection phase meant that I had no contact with Dr Al Rowland and the research team working in his laboratory. That ensured they remained unaware of whether the blood samples they were processing were from the NTVs or the control group participants. Once collected, the blood samples were incubated at 37°C in a specially built portable storage unit, and transferred before 8:30 am on the Tuesday morning following each excursion to a designated nurse at the university's Turitea Campus Student Health Centre. The nurse allocated fresh identification codes for each tube in the storage unit, and then passed the unit on to Al Rowland's research team for processing. Scheduling the participant visits to accommodate these protocols required time-consuming planning, that included soliciting assistance from volunteers amongst my family and friends who accompanied me pro bono, to assist with navigation in unfamiliar terrain throughout the North Island during a pre Google maps era.

32. Although the NZNTV Research Officer role was part-time, I found the work very demanding. Acutely aware of the high level of scrutiny the research processes would be subjected to on completion of the project, I was determined to ensure my work met the highest possible operational standards. Managing the associated workload ultimately impacted on the amount and quality of time available to focus on completing the write-up of my doctoral thesis.

33. The discreet, short term contractual aspects of the NZNTV Association research, with the associated government and university funding arrangements highlight the absence, at that time, of any coordinated veterans' research strategies to elicit what mattered to veteran cohorts, and how best to support them. The practice of contracting post graduate students to conduct veterans' research, instead of funding full-time research teams with leaders invested in research programmes to produce and build the knowledge base, limited the opportunities for any follow-up explorations of

the NZNTV Association ("**NZNTVA**") research data. VANZ current Te Arataki policy framework[20] enables strategic research actions that are more likely to facilitate generating follow-up analysis of research findings. For example, the April 2024 Toi Hau Tāngata Social Wellbeing Agency's report "Building an evidence base for understanding veteran outcomes" has used the Integrated Data Infrastructure (IDI), and sought to identify Aotearoa New Zealand's veteran population.[21] Given that to date government agencies have been unable to source comprehensive data about the veteran population, access to the veteran IDI will allow VANZ to develop a better understanding of how veterans transition to civilian life, and are supported after they are 65 years old. These recent data and digital developments provide a myriad of future research opportunities to reflect on the adequacy of past responses to veterans' and their whānau needs, and focus on the more timely identification of emergent issues.

VANZ Exclusion of Research / Research Bias

34. Information sources about NZNTVs on the Te Tira Ahu Ika A Whiro VANZ website cover the period from 1945 to the Veterans' Health Advisory Panel's March 2023 Report to the Minister for Veterans. That report references Allen + Clarke Consulting's May 2022 Literature Review on the Health Impacts of Exposure to Ionising Radiation (listed under the designated authors Hooper et al. in the References).[22]

35. The Literature Review's Executive Summary states: "The most recent high quality evidence was reviewed and summarised."[23] However, there is an absence of any reference to medical anthropologist Dr Catherine Trundle's nuclear test veteran research publications in the review. Currently a Public Health Senior Lecturer at La Trobe University in Melbourne, Trundle's

[20] Veterans' Affairs New Zealand, *Te Arataki Mental Health Framework Moves Ahead,* dated 20 September 2024, accessed at <https://www.veteransaffairs.mil.nz/news-events/articles/te-arataki-mental-health-framework-moves-ahead/>.
[21] Social Wellbeing Agency, *Building an evidence base for understanding veteran outcomes,* dated April 2024, accessed at <https://www.sia.govt.nz/assets/Document-Library/Building-an-evidence-base-for-understanding-veteran-outcomes-Final.pdf>.
[22] Allen + Clarke Consulting, *Literature Review on the Health Impacts of Exposure to Lionising Radiation,* dated 24 February 2023, accessed at <https://www.veteransaffairs.mil.nz/assets/Research/Literature-Review-on-Health-Impacts-of-Ionising-Radiation.pdf>.
[23] Allen + Clarke Consulting, *Literature Review on the Health Impacts of Exposure to Lionising Radiation,* dated 24 February 2023, at 11, accessed at <https://www.veteransaffairs.mil.nz/assets/Research/Literature-Review-on-Health-Impacts-of-Ionising-Radiation.pdf>.

publication list includes papers that provide narrative insights about the health impacts of radiation exposures on British and New Zealand nuclear test veterans and their whānau. Disregarding Trundle's body of ethnographic research reveals a lack of awareness of the need to interrogate researcher bias, including the commissioning agent and the Literature Review authors' own 'gaze'; and the importance of analysing the underlying assumptions, motivations and values that informed their selection of 'high quality' 'regimes of truth' for inclusion in the Literature.[24]

36. Trundle's three-year ethnographic study (2009-2012) funded by the New Zealand Royal Society Te Apārangi more than five decades after the veterans' deployment, examined Aotearoa New Zealand and British nuclear test veterans' lived experiences of health, illness, medical care and government support.[25] Her publications report distilled insights gleaned from interviews conducted 51 test veterans aged in their 70s and 80s, or deceased test veterans' widows and/or children, who were members of nuclear test veteran associations in Aotearoa and the United Kingdom.

37. Trundle concluded her paper *Diagnosing a deserving British nuclear test veteran* with a caveat warning against legitimising certain forms of knowledge and practice whilst denying others; and reminded readers that "social suffering and somatic suffering are for many patients intimately interlinked or indistinguishable".[26] Given that detailed military records regarding nuclear test veterans' exposure are not available, Trundle's final comments expressed hope that "a more holistic diagnostic method might be conceived", that can, "by proxy, prove a probable and theoretical link between exposure and illness".[27] Te Kunenga ki Pūrehuroa Massey

[24] L T Smith, *Decolonizing Methodologies Research and Indigenous Peoples* (Zed Books Ltd, University of Otago Press, 2008) at 32, accessed at <https://nycstandswithstandingrock.wordpress.com/wp-content/uploads/2016/10/linda-tuhiwai-smith-decolonizing-methodologies-research-and-indigenous-peoples.pdf>.
[25] See C Trundle, *Biopolitical endpoints: Diagnosing a deserving British nuclear test veteran* (Social Science & Medicine, Volume 73, Issue 6, pages 882-888, September 2011), accessed at <https://www.sciencedirect.com/science/article/abs/pii/S0277953611003224>; C Trundle, *New Zealand Nuclear Test Veterans' Experiences of Accessing Healthcare and State Recognition A Preliminary Report* dated December 2011.
[26] C Trundle, *Biopolitical endpoints: Diagnosing a deserving British nuclear test veteran* (Social Science & Medicine, Volume 73, Issue 6, pages 882-888, September 2011), at 888, accessed at <https://www.sciencedirect.com/science/article/abs/pii/S0277953611003224>.
[27] C Trundle, *Biopolitical endpoints: Diagnosing a deserving British nuclear test veteran* (Social Science & Medicine, Volume 73, Issue 6, pages 882-888, September 2011), at 888, accessed at <https://www.sciencedirect.com/science/article/abs/pii/S0277953611003224>.

University multi-disciplinary NZNTV research project explored such possibilities.

38. Allen + Clarke Consulting's May 2022 publication cut-off date for their Literature Review also excluded papers such as Rake et al.'s June 2022 cytogenetic study *British nuclear test veteran family trios for the study of genetic risk,* published by researchers based at Brunel University London's Centre for Health Effects of Radiological and Chemical Agents ("**CHRC**").[28]

39. In the late 1950s military authorities intent on developing nuclear arsenals did not consider the possibilities of multidimensional intergenerational consequences of radiation exposure, and consequently paid scant attention to the emergent environmental health impacts. Nic Maclellan's 2017 book Grappling with the Bomb documents how "attempts to hold successive British governments to account have also been hampered by a culture of secrecy."[29] Maclellan's text reveals how state-sanctioned secrecy and the influential power of Defence departments and the Atomic Weapons Research Establishment (AWRE) on medical research, have ensured that definitive diagnoses of contested illness symptoms experienced by nuclear test veterans and their whānau could not be traced and confirmed. This was largely due to the limits of current scientific knowledge, and the vested interests that influenced the determination of research priorities. The May 2024 New Zealand submission to the UN Secretary-General addressing the legacy of nuclear weapons testing in the Pacific stated that the "impacts of testing continue to be felt today, including but not limited to intergenerational physical and psychosocial health concerns, environmental harm including contamination, displacement and disconnection to land, loss of livelihoods, and feelings of injustice."[30]

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[28] C Rake et al, *British Nuclear Test Veteran Family Trios for the Study of Genetic Risk* (Journal of Radiological Protection, Volume 42, Issue 2, June 2022), accessed at <https://www.researchgate.net/publication/361449589_British_nuclear_test_veteran_family_trios_for_the_study_of_genetic_risk>.

[29] N Maclellan, *Grappling with the Bomb: Britain's Pacific H-bomb tests* (ANU Press, The Australian National University, Acton Act 2601, Australia, 2017), at 8, accessed at <https://press.anu.edu.au/publications/series/pacific/grappling-bomb>.

[30] New Zealand Foreign Affairs & Trade, *New Zealand submission to the UN Secretary-General A/RES/78/240 'Addressing the legacy of nuclear weapons: providing victim assistance and environmental remediation to Member States affected by the use or testing of nuclear weapons'* dated May 2024, at 2, accessed at <https://docs-library.unoda.org/General_Assembly_First_Committee_-Seventy-Ninth_session_(2024)/78-240-New_Zealand-EN.pdf>.

40. The community-led research and advocacy of NZNTVA leaders such as the late Ruth McKenzie (a registered nurse), the late Roy Sefton (NZNTVA Chairman) and Tere Tahi (NZNTVA Vice Chairman) challenged the traditional hierarchical military and biomedical structures that continue to privilege positivist Western knowledge production systems, whilst demonstrating the value of co-producing veteran and whānau-centred research initiatives, to elicit more informative context specific research evidence. For example, the University of Dundee's Centre for Medical Education Family History Protocol Study Report published in 2000 was the product of a collaboration between Roy Sefton (who secured New Zealand War Pensions Medical Research Trust funds), Ruth Mackenzie (who, with help from two assistants, interviewed 110 surviving NZNTVA veterans), Tere Tahi (named as collaborating Māori veteran in the 'Treaty of Waitangi' section of the 'National Application Form for Ethical Approval of a Research Project'), and two University of Dundee medical educators, Sue Rabbitt Roff and Paul Reece.[31] Their research results reported the incidence of self-reported malignant and comorbid diseases in surviving NZNTVs and their offspring, and included an analysis of the 443 conceptions reported for the 234 men, which revealed "26.4% of the conceptions did not result in live births." The research concluded with several recommendations, including that Aotearoa follow the US guidelines for presumptive radiogenic cancers when developing pension and compensation policies for nuclear test veterans; as well as the need for on-going research.[32]

41. NZNTVA's vision and mahi over more than three decades does appear to have gradually and incrementally increased awareness amongst the authorities of the value of collaborating with veterans and their whānau, to develop clearer understandings of the downstream humanitarian impacts of the veterans' service during Operation Grapple, and other nuclear-related exposure deployments. For example, in April 2024 the VANZ website stated

[31] S Roff, P Preece, et al, *Family History Protocol Study Report,* dated October 2000, accessed at <https://www.veteransaffairs.mil.nz/assets/Research/b4aa21a8b0/Family-History-Protocol-Study-Report.pdf>.
[32] S Roff, P Preece, et al, *Family History Protocol Study Report,* dated at October 2000, at 3, accessed at <https://www.veteransaffairs.mil.nz/assets/Research/b4aa21a8b0/Family-History-Protocol-Study-Report.pdf>

the agency was providing support for "families of Jayforce, Grapple, and Mururoa Veterans", including "Genetic counselling, and, if necessary, genetic testing may be funded for eligible nuclear veterans as part of an overall treatment package for a service-related condition."[33]

Te Kunenga ki Pūrehuroa Massey University's NZ Nuclear Test Veterans' Research

Context of NZNTVs' research project

42. Catherine Masters' 11 July 2009 NZ Herald article Dealing with the fallout deftly summarised the context of the NZNTV Study when describing how the Principal Investigator, Dr Al Rowland, reflected on what happened in the early 2000s:[34]

> He [Al Rowland] had met with Roy Sefton, chair of the New Zealand Nuclear Test Veterans Association. Sefton's group had funding to prepare a legal claim against the British Government and for a study to see if there was genetic damage in veterans. The investigation was to be conducted by British scientists but they couldn't get ethics approval. Sefton asked Rowland if he would like to do it. Rowland said he would have to think about it. The bomb blasts were 50 years ago and he wasn't sure there would be anything to find. But the science would be fascinating. There were new tests, especially one which looked at translocations between different chromosomes – the swapping of genetic material. Translocations show evidence of genetic damage and there's a strong link between them and cancer.

43. Before Al Rowland took on the project Masters described how he had observed: "Look, you can't just go out and take the blood of the veterans. You have to design the study methodically and you must have matched

[33] Veterans' Affairs New Zealand, *Support for families of Jayforce, Grapple, and Mururoa Veterans*, dated 16 April 2024, accessed at <https://www.veteransaffairs.mil.nz/a-z/support-for-families-of-those-with-service-on-operation-grapple/>.
[34] C Masters, *Dealing with the Fallout,* dated 11 July 2009, accessed at <https://www.nzherald.co.nz/nz/dealing-with-the-fallout/KRQU5HPP2EYDZ4KBY6FV3KTSYA/>.

controls."[35] As a result, he consulted with a colleague in the School of Psychology, neuro-psychologist Dr John Podd, who had experience studying human populations. Masters reported how Al Rowland's team sorted out which tests or assays to use, whilst John Podd figured out how to select the retrospective cohort samples of exposed veterans and the matched control subjects.

44. Masters noted how Al Rowland had observed: "Selecting participants took ages. It was almost like a military exercise in itself."[36] Fulfilling the NZNTV Research Officer role responsible for the participant selection I was hyperaware of how crucial those processes were to the validity of the research findings, and was meticulous in applying the research protocols described in the 2005 New Zealand Nuclear Test Veterans' Study: A Pilot Project (Psychological Impact) report[37] to the very best of my ability.

45. Towards the end of her article Masters noted that "An Expert Panel on Veterans' Health had been set up and tasked with looking at research into the health effects of NZNTVs. Sefton's group will be making submissions."[38]

46. A descriptive summary of the psychological impact research findings are presented below, followed by retrospective critical reflections on the study's procedural and design limitations, prior to revealing details in of subsequent interactions with the Veterans' Health Advisory Panel (also referred to as the 'Expert Medical Panel' or EMP).

Summary of the NZNTV 2005 Psychological Impact Pilot Project Research

47. The Summary at the beginning of the School of Psychology Te Kura Hinengaro Tangata 2005 New Zealand Nuclear Test Veterans' Study: A Pilot Project (Psychological Impact) report highlights that the principal aim of the investigation "was to conduct several genetic tests on blood samples

[35] C Masters, *Dealing with the Fallout,* dated 11 July, 2009, accessed at <https://www.nzherald.co.nz/nz/dealing-with-the-fallout/KRQU5HPP2EYDZ4KBY6FV3KTSYA/>.
[36] C Masters, *Dealing with the Fallout,* dated 11 July, 2009, accessed at <https://www.nzherald.co.nz/nz/dealing-with-the-fallout/KRQU5HPP2EYDZ4KBY6FV3KTSYA/>.
[37] Exhibit Bundle, "A", J Podd, J Blakey, R Jourdain, R E (AL) Rowland, *New Zealand Nuclear Test Veterans Study – A Pilot Project (Pscyhological Impact)* dated 2005, at 10-14.
[38] C Masters, *Dealing with the Fallout,* dated 11 July, 2009, accessed at <https://www.nzherald.co.nz/nz/dealing-with-the-fallout/KRQU5HPP2EYDZ4KBY6FV3KTSYA/>.

collected from 50 Exposed men and 50 (non-exposed) Controls"; and the secondary aim "was to generate a psychological profile of the nuclear test veterans."[39] The authors' reference to the research funding limitations which prioritised the genetic testing highlights the operational constraints of the research project in relation to the participant sample selection and data collection methodologies. Statistical power considerations alongside logistical operational features and cost containment ultimately dictated the total number of participants (n=100) residing in the North Island, who were randomly selected from two potential participant pools for inclusion in the respective Exposed (n=50) or Control (n=50) research participant groups. The descriptive term 'Pilot Project' in report's title alluded to the exploratory nature of this retrospective observational research project.

48. The introduction to the report states that on the basis of previous research, the authors surmised that at least some of the nuclear test veterans would be suffering from chronic stress, due to the uncertainty about whether their exposure had caused any adverse health effects. They posited that if the Exposed veterans were suffering from chronic stress, their profiles would present as more depressed (gauged with the Geriatric Depression Scale); have poorer perceived physical and mental health (as measured by the SF-36 Health related Quality of Life scale); and possibly also poorer perceived memory (gauged with the Memory Assessment Clinics Self-Rating Scale).

49. The data collection protocols administered during 2002 and 2003, partly through a mailout survey and partly through a face-to-face interview with each of the 100 respondents (50 Exposed veterans and 50 Controls), included questions related to the dependent variables, long-term health problems and a range of other factors (such as age, income, education level, alcohol consumption, lifetime smoking and lifetime trauma) that had the potential to confound the dependent variables of interest. The data analyses removed any impact of these covariates before comparing the profiles of the Exposed veterans with those of the referent Control group. The adjusted dependent variable scores confirmed what the researchers had expected, namely that the Exposed men were considerably more depressed than the

[39] Exhibit Bundle, "A", J Podd, J Blakey, R Jourdain, R E (AL) Rowland, *New Zealand Nuclear Test Veterans Study – A Pilot Project (Pscyhological Impact)* dated 2005, at 18.

Controls; had poorer perceived physical and mental health, and poorer perceived memory. In addition, a statistically significant greater percentage of Exposed men compared to Controls self-reported having received a medical diagnosis of Cancer and Chronic Skin Conditions that had persisted for six months or more, with the overall pattern of long-term health problems clearly falling disproportionately on the Exposed men.

50. Based on the limited psychological evidence gathered, and on previous research, the authors concluded "that many of the New Zealand nuclear test veterans are suffering from chronic stress." They suggested that the "high degree of uncertainty, coupled with the Exposed men's increasingly strong belief that radiation exposure may have harmed them probably results in the elevated stress levels." Moreover, they observed that the Exposed men's stress levels may have been further exacerbated by their frustration at the perceived lack of any progress over the past 40 years in resolving the issues arising from their exposure to nuclear radiation; and drew attention to the fact that the psychological profiles of the 50 Exposed men were "far from normal."

51. Given that the Exposed men reported suffering more trauma in their lives, were less well educated and had smoked at a rate higher than the Controls, the authors recommended:

    a. The need to offer those Exposed men experiencing chronic stress assistance to help them cope, and thereby also reduce the risk of ill health that is known to accompany chronic stress.

    b. As a matter of urgency, VANZ develop strategies to address the health inequalities evident in the compromised quality of life profiles in some of the Exposed men.

Chronic stress links

52. At this juncture it is worth noting that the NZNTV Psychological Impact Pilot Study report stated that the self-report Trauma Events Scale (TES) covariate explained 12% of the variance in the respondents' Mental Health related

Quality of Life scores; 9% of the variance in the Geriatric Depression Scale scores; and 7% of the variance in the respondents self-reported presence of long term Chronic Skin Conditions. Despite this, no descriptive analysis of the TES response patterns was reported, other than noting the ambiguity of the first question in the scale, which asked: Have you ever been engaged in military combat? Some Exposed veterans answered “Yes” because they perceived their Operation Grapple service as military combat, whilst others did not. Consequently, the responses to the first question were excluded from the analysis to improve the internal consistency of the measure. In retrospect, providing more descriptive details of the remaining 12 TES responses could have provided additional insights when exploring potential psychosocial interventions to ameliorate the psychological impact of the respondents’ exposure to traumatic life experiences, but with such a small sample, the non-disclosure also protected the participants’ privacy.

53. The lost opportunity is also mentioned in Rebekah Jourdain’s 2009 Clinical Doctorate dissertation "Psychological Fallout": The Effects of Nuclear Radiation Exposure, which initially reported on the Psychological Impact Pilot Study (Study I),[40] and then applied a stress theory framework to explain how the psychological profiles of the 50 Exposed veterans exhibited more self-reported depressive symptoms, poorer perceived health and poorer memory performance than the 50 age-matched Control participants. The clinical focus of the subsequent intervention (Study II) activated additional ethical requirements that included considerations of safe and respectful cultural practice when delivering and evaluating a psychotherapeutic intervention with NZNTV volunteers of either Māori or Pākehā descent, who reported experiencing moderate to high levels of health anxiety.[41]

54. The Study I limitations that Rebekah Jourdain noted in her dissertation are considered in detail below, whereas those related to the Study II (clinical psychotherapeutic intervention) are summarised more concisely.

[40] R L Jourdain, *Psychological Fallout: the Effects of Nuclear Radiation Exposure,* dated 2009, at xxi, accessed at <https://mro.massey.ac.nz/server/api/core/bitstreams/69dd4565-254a-4b80-aa3d-aaf61e8738ee/content>.
[41] R L Jourdain, *Psychological Fallout: the Effects of Nuclear Radiation Exposure,* dated 2009, at v, accessed at <https://mro.massey.ac.nz/server/api/core/bitstreams/69dd4565-254a-4b80-aa3d-aaf61e8738ee/content>.

NZNTV Psychological Impact Pilot Project research limitations

55. Rebekah Jourdain prefaces the limitations related to the Psychological Impact Pilot Project ("**Study I**") with this observation: "In hindsight, some limitations could perhaps have been avoided, but others are an inherent feature of being required to collect data in the field using less than perfect measures."[42] Framed within an individualistic Western Science clinical paradigm, Rebekah Jourdain's critical reflections reveal how research processes designed to capture static, cross-sectional snapshots, can overlook depicting the dynamic changes that may have occurred in the past, or may be currently occurring, but fall outside the scope of the research brief and the gaze of the research team.

Study 1's procedural Issues

56. Recruiting appropriately matched, randomly selected Control participants over 40 years after Operation Grapple, and with limited assistance from VANZ, created noticeable downstream implications. This was primarily because the participant selection protocols could not follow historical cohort study recruitment practices like those used in epidemiological studies such as McBride et al.'s (2013) British Medical Journal article, which randomly selected a cohort of potential Vietnam veteran respondents.[43] Enumerating and compiling a roll of potential Kiwi ex-servicemen who met the Control Group participants' strict inclusion and exclusion criteria was not possible at that time. Hence the NZNTV Research Project recruitment protocols used veteran networks to recruit the study's potential Control participant pool.

57. Invitations to participate as a Control participant in this research project were published in the April 2002 RSA Review and the August 2002 Auckland Regional RSA Review, but did not attract sufficient responses. Consequently, I reached out through the RSA Head Office in Wellington, Field Supervisors in Auckland and Northland, and a Second NZ Regiment Reunion newsletter, to establish personal connections with the personnel

[42] R L Jourdain, *Psychological Fallout: the Effects of Nuclear Radiation Exposure,* dated 2009, at 67, accessed at <https://mro.massey.ac.nz/server/api/core/bitstreams/69dd4565-254a-4b80-aa3d-aaf61e8738ee/content>.
[43] D Mcbride, B Cox, J Broughton, D Tong, *The Mortality and Cancer Experience of New Zealand Vietnam War Veterans: A Cohort Study,* (BMJ Open, 2013).

associated with potential recruitment channels. Ruth McKenzie also approached a Waiheke Rotary Club where she resided at the time, but those volunteers were all excluded because of their higher socioeconomic status. Exploring the diverse recruitment options was time consuming and at times frustrating, because some potential Control volunteers who met all the inclusion criteria declined when they realised their blood sample would be collected for cytogenetic testing. From the 135 men who responded indicating their willingness to participate, only 52 viable volunteers met the strict inclusion criteria, which excluded a range of other possible toxic exposures. The shortfall of Control participants resident in the Auckland and Northland regions was compensated with extra Central North Island recruits, who were located within easiest reach of the research team and recruited when Second NZ Regiment veterans gathered in the Manawatu for a reunion. These diverse logistical challenges considerably extended the recruitment time period, and altered the eventual geographic composition and proportions of the Control sample's stratified geographic locations.

58. Given the challenges I faced recruiting 50 geographically stratified age matched Control participants, who met the strict inclusion and exclusion criteria, it is worthwhile noting that researchers associated with the UK's Centre for Health Effects of Radiological and Chemical Agents (CHRC) reported an extremely low 4% response rate when recruiting 42 randomly selected Control participants for their cytogenetic replication study with British veterans. An extract of details about the CHRC eventual sample size reported in Lawrence et al.'s January 2024 paper included below, because it also reveals how the NZNTV Cytogenetic Research Project methodology reported by Wahab et al. (2008)[44] shaped the CHRC's study design, despite Wahab's peer reviewed paper being excluded from Allen + Clarke's literature review:[45]

[44] Wahab MA, Nickless EM, Najar-M'kacher R, Parmentier C, Podd JV, Rowland RE. *Elevated chromosome translocation frequencies in New Zealand nuclear test veterans* (Cytogenetic Genome Res., Volume 121, Issue 2, pages 79-87, 2008), accessed at <https://pubmed.ncbi.nlm.nih.gov/18544930/>.
[45] K J Lawrence et al, *M-FISH Evaluation of Chromosome Aberrations to Examine for Historical Exposure to Ionising Radiation Due to Participation at British Nuclear Test Sites* (Journal of Radiological Protection, Volume 44, Issue 2, January 2024), at 16, accessed at <https://www.researchgate.net/publication/377263936_M-FISH_evaluation_of_chromosome_aberrations_to_examine_for_historical_exposure_to_ionising_radiation_due_to_participation_at_British_nuclear_test_sites>.

4.4.2 Sample Size

> The target for the GCFT study was to recruit 50 NT and 50 matched controls for analysis [10]. Original statistical power calculations, conducted on the basis of **Wahab. et al** for the frequency of reciprocal translocations, were performed for varying sample sizes [24]. These showed that a sample size of 30 NT and 30 control veterans with a minimum of 50 metaphase cells from each veteran would be sufficient to identify 1.5 counts per 100 cells above the control background as statistically significant (number of cells with translocations; 0.9% in control group vs 2.4% in NT veterans according to Wahab [24]) … The variation in aberration frequencies in the control veterans was higher than expected which violated the assumptions of the original sample size calculations. None of the chromosome aberrations types provided any indications for a potentially overlooked cohort-difference as a consequence of an underpowered study: e.g. by increasing the study sample size of 38 control and 48 veteran samples to 76 control and 96 test veteran samples by simple doubling the existing M-FISH data would have not changed the statistical outcomes.
>
> (**emphasis added**)

59. It is also worthwhile pointing out that Lawrence et al.'s January 2024 paper acknowledged the significant contributions of germ cell mutagenesis pioneer, the late Professor Yuri Dubrova, to their research programme.[46] Coincidentally, Professor Yuri Dubrova was the sole geneticist amongst the reviewers whom the Ministerial Advisory Group on Veterans' Health invited to comment on the NZNTV's cytogenetic research in 2009/2010. Details of that contested review process are provided in the Section describing NZNTVA's interactions with the EMP in this document; however, this serves as a prequel, because Professor Dubrova's positive revue of Rowland et

[46] K J Lawrence et al, *M-FISH Evaluation of Chromosome Aberrations to Examine for Historical Exposure to Ionising Radiation Due to Participation at British Nuclear Test Sites,* dated January 2024, accessed at <https://www.researchgate.net/publication/377263936_M-FISH_evaluation_of_chromosome_aberrations_to_examine_for_historical_exposure_to_ionising_radiation_due_to_participation_at_British_nuclear_test_sites>

al.'s research was sent to an anonymous local reviewer (identified as Reviewer A) for comments. Reviewer A (subsequently identified as a fellow Public Health Physician and Epidemiologist at Ōtākou Whakaihu Waka University of Otago), was invited by the Chair of the Ministerial Expert Medical Panel on Veterans' Health, Professor John Campbell, "to assess Professor Dubrova's review of the NZ Nuclear Test Veterans' study; in particular to ascertain the degree to which participant selection and adjustment for confounders may have influenced the findings". A letter from the Ministerial Advisory Group on Veterans' Health to Hon. Judith Collins containing Reviewer A's response is **attached** and marked "**C**" at page 207 of the **Exhibit Bundle**. The final paragraph of Reviewer A's response stated:[47]

> Professor Dubrova gives a nice, thoughtful description of the research question and the methods and results of the genetic techniques used in the study. I assume from his address that his expertise is in genetics. When it comes to the epidemiological methods, I disagree with some of Prof Dubrova's conclusions (in his last paragraph). In particular: (1) **this is not a 'large cohort'** – but rather a study with a small sample size, as he points out earlier in his report (2) **this does not give what I would regard as 'experimental' evidence, as it is an observational study and not a trial, (3) the evidence is not 'very strong' in my opinion, but it is suggestive of a difference which could even be an underestimate yet requires confirmation, and (4) the consequences or implications for the men's health are not established by this type of research**. While the findings are very interesting and warrant further investigation, on the basis of what has been reported we don't have enough evidence to attribute causality or to comment on the seriousness or implications of the findings. I have no conflict of interest.
>
> (**emphasis added**)

[47] Exhibit Bundle, "C", Ministerial Advisory Group on Veterans' Health, *letter to Hon. Judith Collins regarding review of the research undertaken by Massey University on behalf of the New Zealand Nuclear Test Veterans Association* dated 23 December 2010, page 227.

60. The semantic characteristics embedded in Reviewer A's summary that illustrate his fluency with, and potentially also his default preference for epidemiological research paradigms that typically analyse data from large cohorts or samples of human participants, have been placed in bold text in the text presented above. Moreover, Reviewer A's comments revealed his lack of familiarity at the time with the context of Al Rowland et al.'s studies; and in particular, his knowledge and expertise in relation to the specific novel cytogenetic research processes used by the likes of Professor Dubrova. Reviewer A's third point opined that "the evidence is not 'very strong' in my opinion"; although he immediately qualified that statement by adding the findings "could even be an underestimate yet (that) requires confirmation". That ambiguity should have immediately signalled the need to follow-up those NZNTVA participants who were identified with abnormal cytogenetic results, in order to collaborate and explore developing more informed understandings of their clinical profiles.

61. As a social science researcher and health consumer advocate who became a participant observer of the subsequent contested research review processes, it became clear to me that the epidemiological and cytogenetic research approaches drew on differing epistemological research traditions to frame the Grapple research context. From my perspective, the need to provide a timely and compassionate duty of care to the Grapple veteran research participants and their whānau became lost in translation, as transdisciplinary quibbles about methodological research issues dominated the discussions. That observation also applied to Reviewer A's fourth and final summary point about cytogenetic research not establishing any "implications for the men's health". There was certainly a lost opportunity of linking the cytogenetic findings with the veterans' subjective experiences and their self-reported health and wellbeing profiles in Al Rowland et al.'s multidisciplinary research. Providing descriptive case studies of those veterans whose cytogenetic results revealed abnormalities would have been a useful start to recommending clinical monitoring of those veterans, to discover more about the characteristics of their and potentially also their whānau members' clinical profiles. To my knowledge that was never

undertaken; although Reviewer A went on to lead research about mainly Mururoa veterans and their whānau, that was sponsored by the EMP.[48]

62. The NZNTV Research Studies were commissioned by the NZNTVA and funded by the Helen Clark's government, in keeping with her government's coalition agreement arrangements signed with New Zealand First. In my opinion the resulting contractual funding constraints precluded any further analysis of the NZNTVA research data.

63. Describing the crucial contribution of critical scrutiny by peer reviewers for scientific exploration, Naomi Oreskes and Erik Conway (2011) stated that peer reviewers should be real experts who "must know enough to be able to judge the methods used and the claims made – and they must not have a close relationship, either personal or professional, with the person whose work is being judged".[49] They also note that reviewers are typically sceptics, whose role is to challenge scientists on the claims they make; and to facilitate opportunities for authors to correct mistakes and address concerns raised by the reviewers. The Section describing NZNTVA's interactions with the EMP later in this document reveals how the EMP limited the opportunities for any dialogue with the multi-disciplinary research team during their peer review processes of Rowland et al.'s research. The fact that this is the first time that I have been able to provide any reflective critical commentary on the Expert Panel's 2009-2013 review processes illustrates the controlling, and potentially also silencing impact of the Panel's imposed limitations.

Critique of Study 1's (Psychological Impact Pilot Project's) research design

64. Applying a Western clinical psychology lens, Rebekah Jourdain's doctoral thesis "*Psychological Fallout": the effects of nuclear radiation exposure* considered a number of research design faults in Study I.

[48] J Dockerty et al, *The New Zealand Nuclear and Families Study, Exploring the Options to Assess Heritable Health Outcomes* (New Zealand Medical Association, Volume 133, No. 1515, May 2020), accessed at <https://nzmj.org.nz/media/pages/journal/vol-133-no-1515/the-new-zealand-nuclear-veteran-and-families-study-exploring-the-options-to-assess-heritable-health-outcomes/b7e871f2d4-1696471715/the-new-zealand-nuclear-veteran-and-families-study-exploring-the-options-to-assess-heritable-health-outcomes-open-access.pdf>.
[49] N Oreskes and E M Conway, *Merchants of Doubt* (Bloomsbury Press, June 2010), at 154.

65. Firstly, Rebekah Jourdain stated the small sample size meant that power was restricted in the statistical analyses, alongside the observation that had the sample been larger, the effects would have been larger. However, as noted previously, the research project's primary focus was on using expensive innovative cytogenetic assays to explore detecting evidence of historic radiation exposure, and the associated financial resource implications dictated what was feasible (primarily because it was also affordable) in terms of the sample size. The fact that the NZNTVA raised $78,000 to cover some of the associated chemical assay costs illustrates the proactive stance of the organisation's leadership, and the resource implications associated with conducting this type of research without access to adequate funding resources.

66. I am mindful compiling this critique that when the NZNTV research study was initially designed, the focus was primarily on catering for the cytogenetic research aspects of this multi-disciplinary research project. Rebekah Jourdain's Preface to her dissertation explained that "when Study I was being completed, there was no conception that there would be a Study II; thus, important variables such as health anxiety were not measured".[50] The cytogenetic focal point also reflected the fact that the NZNTVA had secured funding for the research following an initial pledge for a grant made by Hon. Winston Peters, when he was Deputy Prime Minister in the Bolger Government. However, Hon. Winston Peters was removed from office in 1998, and that pledge was later honoured by Right Hon. Helen Clark in 1999, and subsequently led to NZNTVA commissioning Associate Professor Al Rowland at Te Kunenga ki Pūrehuroa Massey University to conduct the research. Catherine Trundle's term 'biopolitical endpoints' reflected the political nuances associated with the NZNTVA's quest to identify a possible biological 'proxy measure' that might be able to provide credible and visible biological evidence of surviving veterans' nuclear exposure.

67. In the Preface to her thesis, Rebekah Jourdain described how her clinical research interests in the psychological aspects of nuclear exposure evolved during her administrative work coding the respondents' returned completed

[50] R L Jourdain, *Psychological Fallout: the Effects of Nuclear Radiation Exposure,* dated 2009, at xxii, accessed at <https://mro.massey.ac.nz/server/api/core/bitstreams/69dd4565-254a-4b80-aa3d-aaf61e8738ee/content>.

survey booklets, and their associated interview protocol responses, prior to analysing the dataset to compile the Psychological Impact Pilot Project report (i.e. Study I) for her post-graduate studies. Whilst Rebekah and her clinical supervisors were unable to influence what data were collected in Study I, their clinical contributions in Study II highlighted the need to use more holistic models of health, in order to develop better informed and more nuanced understandings of the intergenerational impacts of psychic distress. Rebekah observed that the default focus was usually on the physical/biological domains, whilst the social, spiritual and mental dimensions were frequently ignored. Māori health advocate Tā Mason Durie's Te Whare Tapa Whā wellbeing model that Rebekah cited in Study II is embraced, because it articulates an holistic approach within an indigenous paradigm.

68. Rebekah Jourdain (2009) devised a multiple baseline research design to examine the acceptability and effectiveness of an eight session Acceptance and Commitment (ACT) intervention with individual Nuclear Test Veteran participants, who lived within easy access of Palmerston North, so that she could drive to meet each veteran in their home. The opening passages of Study II reveal how time pressures and challenges associated with recruiting sufficient research participants, and then delivering the ACT sessions within the specified time period, required adaptive compromises that accommodated each veteran's preferences and life circumstances, alongside Rebekah's postgraduate academic priorities.

NZNTV Health Anxiety Psychotherapeutic Intervention

Rebekah Jourdain's Study II Limitations

69. Rebekah Jourdain recognised the limitations of applying a monocultural Euro-centric clinical psychology intervention in the NZNTVA research setting. She also highlighted that measures specifically developed for older veterans in Aotearoa NZ should have appropriate cultural norms. Moreover, Rebekah recommended that future veteran research harness te ao Māori perspectives such as those embedded in a cultural assessment framework like Te Whare Tapa Whā, which would enable researchers to glean more

detailed information about Māori veterans' cultural involvement and discover whether they might seek traditional Māori healing practices. Those suggestions are particularly relevant, because a current veterans' research project, led by Prof. McBride, and uploaded to the Acupuncture NZ website on 4 April 2022 revealed details of "an exciting new project":[51]

> Headed by Dr David McBride, a team from Otago University, Toi Ohomai Institute of Technology and Acupuncture New Zealand are about to embark on a ground-breaking study looking at the use of acupuncture, action and commitment therapy (ACT) and Rongoa Māori healing for the treatment of New Zealand's Veterans who are dealing with ongoing distress stemming from their work within the Defence Forces.

70. Brenda Harwood's 15 June 2023 Otago Daily Times Star article headlined "Veterans sought for health study"[52] subsequently publicised details of the research project and invited veterans to find out more by visiting Prof. McBride's blog, or signing up to participate. The research protocol document concluded with a statement about the 'Significance' of the project:

> He Ara Oranga, the Report of the Government Inquiry into Mental Health and Addiction, highlighted the increasing demand for mental health services, the rising use of pharmacological treatment, and inequities in access to psychological services. Using 'talking therapies' is seen as a viable way forward, but faces the barrier of the limited number of psychologists available to treat the more seriously affected patients.[24] The alternative suggestion was to involve counsellors and social workers in treatment at 'the milder end of the spectrum.'[25] Acupuncturists and Rongoā Māori practitioners are skilled in 'talking through' problems, so this proposal addresses a pathway to care for Military Veterans with pain and distress, integrating a 'Veteran acceptable'

[51] Acupuncture NZ, *Alternative and Complementary Medicine as a Pathway to Care for New Zealand Military Veterans Experiencing Pain and Distress,* dated 5 April 2022, accessed at <https://www.acupuncture.org.nz/veteran/>.
[52] B Harwood, *Veterans Sought for Health Study,* dated 15 June 2023, accessed at <https://www.odt.co.nz/the-star/veterans-sought-health-study>.

> complementary and alternative medicine (CAM) approach to address their needs.

71. Whilst Rebecca Jourdain's research kaupapa integrated te Tiriti principles and offered the NZNTV participants choices within the treatment intervention, the CAM kaupapa does not appear to do so. Randomly allocating treatment pathways to participating veterans limits their choice to pursue their preferred treatment option, and also risks restricting their self-determination.

NZNTVA's Interactions with the Veterans' Health Advisory Panel (Beginning 2009)

72. In the Foreword of the July 2008 Te Aka Matua o Te Ture Law Commission Issues Paper 7 Sir Geoffrey Palmer observed that The War Pensions Act 1954 "suffers from fundamental weaknesses that need to be rectified."[53] The paper refers to "a real need for a body of medical experts to review medical research and to give guidance on decision-making in light of that research."[54] Moreover, it reports:[55]

> There is no reliable information on the numbers of veterans in New Zealand. Once veterans leave the NZDF, the Government loses track of where they are and what the state of their health is. Monitoring the health of veterans would enable health problems to be picked up and dealt with more quickly than they have been in the past.

73. This section cites a number of sources that reveal how the NZ and British governments responded to NZNTVA's Te Kunenga ki Pūrehuroa Massey University multidisciplinary research project findings, and the subsequent interactions between the NZNTVA leadership and agents representing those government authorities.

[53] Law Commission, *Towards A New Veterans' Entitlements Scheme: A Discussion Paper On A Review of the War Pensions Act 1954* dated 16 June 2015, Wai 2500, #A6(a), at iii.
[54] Law Commission, *Towards A New Veterans' Entitlements Scheme: A Discussion Paper On A Review of the War Pensions Act 1954* dated 16 June 2015, Wai 2500, #A6(a), at 20.
[55] Law Commission, *Towards A New Veterans' Entitlements Scheme: A Discussion Paper On A Review of the War Pensions Act 1954* dated 16 June 2015, Wai 2500, #A6(a), at 20.

74. When the NZNTVA leadership was invited to attend a meeting in Wellington with the state-appointed Veterans' EMP that was chaired by the late Professor John Campbell (who died in August 2016 from complications related to early onset dementia mate wareware), Roy Sefton phoned me and asked if I could please assist him and Waiheke-based Ruth McKenzie compile a NZNTVA written submission to the EMP, which I agreed to do. As both Roy Sefton and Ruth McKenzie have also died, their voices and perspectives are included in this section through extracts from emails and letters that they shared with me.

75. The NZNTVA's 2009 written submission to the EMP stated their expectations when engaging with the Panel members in relation to research and/or the health and wellbeing concerns raised by NZNTVA members, and concluded with a list of recommendations. NZNTVA's written submission is **attached** and marked "**D**" at page 241 and "**D-1**" at page 320 of the **Exhibit Bundle**. The written submission content is provided in full, to frame the emergent narrative in the section that describes the NZNTVA's experiences of engaging with the EMP.

NZNTVA Engagement with the Expert Medical Panel

76. The NZNTVA's 2009 Written Submission to the EMP opened with references to both the timing and the length of time (five decades) that the veterans and their whānau had waited for state officials to listen and take their concerns seriously.[56] Unsurprising, the implicit focus of their recommendations was on whanaungatanga and manaakitanga; values embedded in their Written Submission's stated expectations of developing empowering collaborative partnerships with state agents across the veteran community, to build transparency and trust, to facilitate achieving timely and just outcomes for NZNTVs and their whānau. The NZNTVA Written Submission referenced the International Association of Public Participation's ("**IAP2's**") engagement spectrum; a model which is also described on page 25 of the 2015 Health Quality and Safety Commission's publication

[56] Exhibit Bundle, "D", New Zealand Nuclear Test Veterans Association, *Written Submission to the Expert Medical Panel (EMP) in Wellington* dated 20 August 2009, at 241-243.

Engagement with Consumers | A Guide for District Health Boards.[57] The IAP2's engagement spectrum is **attached** and marked "**E**" at page 266 of the **Exhibit Bundle**. Explicit references to engaging in the "Collaborate" zone of the IAP2 engagement spectrum meant inclusion in the EMP's decision-making processes, especially when identifying the NZNTVA's preferred solutions to issues raised. To achieve the collaborative partnership objectives the NZNTVA expected the EMP to look to them "for direct advice" when formulating solutions; and incorporate their advice and recommendations into any decisions to the maximum extent possible. However, despite clearly articulating the NZNTVA delegates' expectations I observed how frustrated they became dealing with flawed engagement processes that eroded their trust and optimism.

77. RNZRSA Affiliates Committee Meeting Minutes held in the Gallipoli Room of ANZAC House in Wellington, on Tuesday 24 August 2010, reveals Roy Sefton's views about NZNTVA's interactions with the EMP during two meetings; the first on the 20 August 2009, and the second on the 4 August 2010. An extract of minutes from the RNZRSA meeting is **attached** and marked "**F**" at page 267 of the **Exhibit Bundle**. Text under 5b. MATTERS ARISING reports a positive first meeting with the Panel, which raised expectations "as the Panel were listening." However, the second meeting "had been disappointing with the Expert Panel appearing inattentive and seeking more research whilst having the Massey University Study peer-reviewed again by anonymous reviewers. NZNTVA felt sidelined by the process."

78. Reviewing the 4 August 2010 EMP meeting transcript provides clear contextual insights as to why Roy Sefton expressed his disappointment about the second meeting; and why "NZNTVA felt sidelined by the process." An extract of the meeting transcript is **attached** and marked "**G**" at page 268 of the **Exhibit Bundle**. It is also noticeable that Roy Sefton's observations in the RNZRSA Meeting Minutes were reinforced nearly two years later, when the only lay member of the Panel, former RSA president John Campbell's critical comments about the Panel's processes were published

[57] Health Quality & Safety Commission New Zealand, *Engaging with Consumers A Guide for District Health Boards,* dated June 2015, at 25, accessed at <https://www.hqsc.govt.nz/assets/Consumer-hub/Partners-in-Care/Publications-resources/engaging-with-consumers-3-Jul-2015.pdf>.

in a 4 June 2011 Otago Daily Times article by Allison Rudd. Rudd's article reported that the Government had appointed the EMP in April 2009 for a two-year term, but that Minister Judith Collins was "looking at proceeding under a different format" (which wasn't specified), and hence the Panel would be disbanded.[58] John Campbell, who was a Vietnam Veteran and aged 72 at the time, said that whilst the Panel had been a good starting point, it had not met his nor other Vietnam veterans' expectations. He added that he did not think he would be offered a place on any replacement Panel, because he was critical of the lack of action on the Panel's reports and associated recommendations; as well as the Government's decision not to release the Panel's reports and recommendations to the RSA and the public.

79. Whilst critical comments from these two veteran leaders provide a prequel to a review of the 4 August 2010 meeting transcript in the Section below describing NZNTVA's interactions with the EMP, it is also instructive to preview the EMP's Terms of Reference ("**ToR**"), because they implicitly created expectations for the veterans about their engagement with the Panel. The ToR are **attached** and marked "**H**" at page 285 of the **Exhibit Bundle.**

NZNTVA engagement experiences framed by the EMP's ToR

EMP's ToR - Mission and Functions

80. The ToR stated that the Expert Panel would "involve veterans by providing them with a forum to have their views heard by experts" (emphasis added).[59] Despite the ToR positioning the engagement with the NZNTVA actors in the "Involving Consultation" rather than NZNTVA's stated expectation of "Collaborative Participation"[60], the NZTVA leaders felt the Panel members had listened to them at their first EMP meeting on the 20 August 2009, which had enabled them to present their concerns. That process affirmed their optimistic expectations about the on-going engagement processes.

[58] A Rudd, *Veterans' Panel a Cornerstone,* dated 4 June 2011, accessed at <https://www.odt.co.nz/news/national/veterans-panel-cornerstone>.
[59] See for comparison Exhibit Bundle, "H", Ministerial Advisory Group on Veterans' Health, *Terms of Reference for the Expert Panel on Veterans Health*, at 285.
[60] Exhibit Bundle, "D", New Zealand Nuclear Test Veterans Association, *Written Submission to the Expert Medical Panel (EMP) in Wellington* dated 20 August 2009, at 247.

However, evidence of subsequent administrative and communication failures highlighted in the second meeting transcript exchanges held a year later, and raised in emails from Roy Sefton, Ruth McKenzie and myself, offer insights as to why the unsatisfactory execution of the engagement processes created disappointment and led to mistrust of the Expert Panel's processes and people.

EMP's ToR - Panel membership and knowledge domains

81. Whilst the Expert Panel members were selected as knowledgeable individuals in their own right, not as representatives of organisations[61], there was a strong connection with the Panel Chair's affiliated academic institution, Ōtākou Whakaihu Waka University of Otago; and during meeting deliberations with the NZNTVA representatives, a preference revealed for commissioning Epidemiological research, to be led by a fellow Ōtākou Whakaihu Waka University of Otago staff member, Dr (now Professor) David McBride. David McBride's professional scope of practice in the Department of Preventive and Social Medicine lies in the sub-speciality of Military Medicine within Occupational and Environmental Medicine. Ōtākou Whakaihu Waka University of Otago may well have been a designated Centre of Excellence[62] for military research, but to my knowledge those details were not shared with the NZNTVA when delegates engaged with the Expert Panel. Compiling this evidence brief, I discovered Laura Hewson's June 2014 Otago Magazine article "Serving veterans", which revealed, retrospectively, the involvement of a team of researchers led by Dr David McBride, as the director of the "Health of Veterans, Serving Personnel and their Families Research Theme" at Ōtākou Whakaihu Waka University of Otago.[63] Hewson's article stated: "In 2011, Otago signed a MOU with the New Zealand Defence Force, making the University a preferred provider of research services for the military."[64]

[61] See for comparison Exhibit Bundle, "H", Ministerial Advisory Group on Veterans' Health, *Terms of Reference for the Expert Panel on Veterans Health*, at 285.
[62] See for comparison Exhibit Bundle, "H", Ministerial Advisory Group on Veterans' Health, *Terms of Reference for the Expert Panel on Veterans Health*, at 287, [27].
[63] L Hewson, *Serving Veterans,* accessed at <https://www.otago.ac.nz/otagomagazine/issue38/features/serving-veterans>.
[64] L Hewson, *Serving Veterans,* accessed at <https://www.otago.ac.nz/otagomagazine/issue38/features/serving-veterans>.

82. The EMP members and processes revealed no visible attention paid to te ao Māori perspectives, and functioning in a manner that encouraged and facilitated honouring Te Tiriti o Waitangi.

83. The contested nature of the EMP's engagement with the NZNTVA delegation certainly drew attention to the need for the Panel's leadership to nurture potentially impactful relationships between Tāngata Tiriti and Tāngata Whenua, especially when investigating the intergenerational health and wellbeing impacts of nuclear test veterans and their whānau. Unfortunately that was not addressed. A recently published Te Tiriti o Waitangi Partnerships (2024) document describes how eleven National Science Challenges intent on working collectively to co-create impactful Te Tiriti partnerships between the Crown and Māori, leveraged sharing core individual and collective values to achieve transformational mission-led research outcomes.[65] The text explained how the National Science Challenge leaders created safe cultural spaces that enabled leaning in to holding a range of challenging discussions about the devolution of power when conducting research.[66] Articulating that journey offered a way of understanding why the NZNTVA felt sidelined by the Expert Panel's engagement processes that denied them any reciprocal opportunities to negotiate developing impactful relationships.[67] In future, the Veterans' Health Advisory Panel could lean into the work experiences and insights of fellow Panel Member Daniel Patrick, who was a Director of Ngā Koiora Tuku Iho New Zealand's Biological Heritage National Science Challenge which developed a Te Tiriti o Waitangi Statement of Commitment policy.[68]

84. EMP member Emeritus Professor Des Gorman (Ngāti Kuri and Ngāpuhi), introduced himself to NZNTVA delegates at the 4th August 2010 Expert Panel meeting by saying: "I'm a physician. Ex Australian Navy, also with the New Zealand Navy for a while. I was a sub-mariner amongst the divers.

[65] J-A Hazel, P-M *Tunui Te Tiriti o Waitangi Partnerships Enhances Research, Science and Innovation,* dated July 2024, accessed at <https://bioheritage.nz/wp-content/uploads/2024/07/Te-Tiriti-o-Waitangi-NSC-report.pdf>.
[66] J-A Hazel, P-M *Tunui Te Tiriti o Waitangi Partnerships Enhances Research, Science and Innovation,* dated July 2024, at 32, accessed at <https://bioheritage.nz/wp-content/uploads/2024/07/Te-Tiriti-o-Waitangi-NSC-report.pdf>.
[67] J-A Hazel, P-M *Tunui Te Tiriti o Waitangi Partnerships Enhances Research, Science and Innovation,* dated July 2024, figure 30 at 93, accessed at <https://bioheritage.nz/wp-content/uploads/2024/07/Te-Tiriti-o-Waitangi-NSC-report.pdf>.
[68] New Zealand's Biological Heritage, *National Science Challenges*, accessed at < https://bioheritage.nz/wp-content/uploads/2023/06/BioH-Te-Tiriti-Commitment-statement-bilingual-FINAL.pdf>.

That's my background."[69] Professor Gorman has doctorates conferred by the Universities of Auckland and Sydney for research into brain injuries, and had clinical interests in the disciplines of toxicology and occupational medicine. Whilst he was appointed to serve on the EMP as a 'knowledgeable individual in his own right', Prof. Gorman is one of the Panel members whom Ruth McKenzie had observed didn't contribute anything else during engagement with the NZNTVA delegates. It is noticeable that currently Prof. Gorman is listed as an Adjunct Senior Fellow on the New Zealand Initiative's website.[70] Transparent recording and reporting of EMP members' sociocultural affiliations did not occur when engaging with the NZNTVA; and to my knowledge, the NZNTVA was never apprised of the Panel members' conflicts of interest register. Yet, establishing transparency within the EMP's ecosystem should have been a priority.

85. The knowledge domains of the Expert Panel were specified as: "Epidemiology, Toxicology, Psychology or Psychiatry, General Practice, Occupational Medicine and Public Health".[71] The NZNTVA leadership drew attention to the lack of any specific expertise amongst the Expert Panel members in relation to historic radiation exposure; particularly research knowledge and experience selecting, applying and interpreting the results of innovative cytogenetic assays to gauge evidence of potential historic radiation exposure. In retrospect, listing Epidemiology first amongst the different research perspectives in the ToR could be interpreted as recognition of the status and preference in the medical fraternity for prioritising this type of population-level clinical research evidence, that uses statistical studies of affected populations to detect the impact of harmful substances in the environment.

86. The diversity of both health and non-health related consequences of involuntary environmental exposures (Pekkanen and Pearce, 2001) raise critical ethical knowledge domains that are relevant when exploring the challenges and opportunities that occur across diverse exposure research

[69] Exhibit Bundle, "G", *Transcript of New Zealand Nuclear Test Veterans Association's meeting with the Expert Medical Panel* dated 4 August 2010, at 268.
[70] The New Zealand Initiative, *Emeritus Professor Des Gorman*, accessed at <https://www.nzinitiative.org.nz/about-us/our-people/des-gorman/>.
[71] See for comparison Exhibit Bundle, "H", Ministerial Advisory Group on Veterans' Health, *Terms of Reference for the Expert Panel on Veterans Health*, at 285, [8].

ecosystems.[72] More specifically, considering the impact of radiation exposure, the following four domains of expertise and knowledge should have been included:

a. Firstly a domain that is open to exploring and revealing how the values and power dynamics of actors within the sociocultural context of focusing on involuntary radiation exposures might influence the timely production and transparent disseminating of emerging research.[73] Carla Wilson's 2001 review of Linda Tuhiwai Smith's 1999 book Decolonising Methodologies[74] on the Ministry of Social Development website draws attention to "the need to be aware of, and open to, different worldviews and ways of knowing."[75] The review concluded by reminding researchers "to consider whose stories are being privileged and whose stories are being marginalised in any representations of the Other". Anthropological explorations of contested claims at a number of levels in the ecosystem can certainly offer informative complementary contextual insights, which is partly why Dr Catherine Trundle's research has been included and cited in this evidence brief.

b. To earn the support and trust of the veterans and their whānau, a domain should have been included that was independent of government, and able to focus on what matters to ageing veterans and their whānau, in order to facilitate establishing and promoting a learning culture of continual quality and safety improvement practice in agencies whose purpose is to support veterans' health and wellbeing.[76] Te Tāhū Hauora Health Quality & Safety

[72] J Pekkanen and N Pearce, *Environmental Epidemiology: Challenges and Opportunities* (Environmental Health Perspectives, Volume 109, No. 1, pages 1-5, 2001), accessed at <https://www.jstor.org/stable/3434913?origin=crossref>.
[73] See for comparison Exhibit Bundle, "H", Ministerial Advisory Group on Veterans' Health, *Terms of Reference for the Expert Panel on Veterans Health*, at 286, [10].
[74] C Wilson, *Decolonizing Methodologies – Linda Tuhiwai Smith (1999)*, accessed at <https://www.royalsociety.org.nz/150th-anniversary/tetakarangi/decolonizing-methodologieslinda-tuhiwai-smith-1999/>.
[75] Ministry of Social Development, *Decolonizing Methodologies: Research and Indigenous Peoples*, accessed at <https://www.msd.govt.nz/about-msd-and-our-work/publications-resources/journals-and-magazines/social-policy-journal/spj17/decolonizing-methodologies-research-and-indigenous-peoples.html>.
[76] C Shuker, et al., *The Health Quality and Safety Commission:making good health care better* (New Zealand Medical Journal, Volume 128, No. 1408, pages 97-109, 2015), accessed at <https://nzmj.org.nz/media/pages/journal/vol-128-no-1408/the-health-quality-and-safety-commission-making-

Commission's focus on encouraging patient and whānau-centred interactions that tune into what matters for patients, and "doing the right thing right, first time" was missing from the NZNTVA's engagement experiences with the EMP.[77]

c. A related and highly relevant knowledge domain is one that is informed by and considers contemporary ethical issues in radiation protection.[78] For example, Kristin Shrader-Frechette and Lars Persson's Swedish Radiation Protection Institute 2001 report on Ethical Problems in Radiation Protection provided a salient roadmap at the time about this topic, as the authors reviewed seven key ethical issues, and concluded that the extant standards for radiation protection could improve.[79] As knowledge of the environmental impacts of radiation exposure continue to evolve over time, so should awareness of the related ethical issues such as: (i) the protection of human health and human rights; (ii) due process and consent in relation to potential exposure to radiation; (iii) worker exposure standards in relation to radiation; and (iv) environmental welfare. All four ethical issues are pertinent for nuclear test veterans and their whānau.

d. Closely aligned with the ethical knowledge domain is the emergence during the 1990s of the term 'moral injury'.[80] King's College London Professor Edgar Jones' editorial in the British Journal of Psychiatry's February 2020 Disaster and Trauma Themed Issue described the development of the 'moral injury' concept, which evolved "when attempting to explain the enduring nature of PTSD suffered by US veterans of the Vietnam War" and the "cultural dissonance" of US soldiers deployed to Iraq and

good-health-care-better/a87b631676-1696476360/the-health-quality-and-safety-commission-making-good-health-care-better.pdf>.

[77] See for comparison Exhibit Bundle, "H", Ministerial Advisory Group on Veterans' Health, *Terms of Reference for the Expert Panel on Veterans Health*, at 286, [10].

[78] See for comparison Exhibit Bundle, "H", Ministerial Advisory Group on Veterans' Health, *Terms of Reference for the Expert Panel on Veterans Health*, at 286, [10].

[79] K Shrader-Frechette and L Persson, *Ethical Problems in Radiation Protection* dated 2001, accessed at <https://www.osti.gov/etdeweb/servlets/purl/20187213>.

[80] See for comparison Exhibit Bundle, "H", Ministerial Advisory Group on Veterans' Health, *Terms of Reference for the Expert Panel on Veterans Health*, at 286, [10].

Afghanistan.[81] Professor Jones explained that US psychiatrist Jonathan Shay's original definition "identified failures by leaders, leading to 'a betrayal of what's right, by someone who holds legitimate authority, in a high-stakes situation".[82] That definition has since evolved to focus "on an individual's perception of moral failure"; where a person has "experienced a potentially morally injurious event (PMIE)" that leads to experiencing "a significant dissonance with the individual's belief system and world-view".[83] Jones observed that moral injury is not currently categorised as a form of mental illness due to "lack of consensus about its nature and uncertainty about how to measure the syndrome in a clinical setting"[84], as there is no threshold for determining when a transgressive act/event meets the criteria for moral injury, due to the plethora of challenges inherent in creating a succinct list that includes most ethical issues. He noted that in America specific treatments such as acceptance and commitment therapy and adaptive disclosure have been developed, whilst UK clinicians have reported using trauma-focused cognitive-behaviour therapy and compassion-focused therapy. Reflecting on the clinical value of 'moral injury' Jones concluded:[85]

> As well as holding the promise of new insights, moral injury presents a challenge for psychiatry. As a concept, it falls between ethics, philosophy of mind, epistemology and social psychology. As a result, the clinical interpretation of moral injury runs the risk of medicalising ethical behaviour when associated with distress, or pathologizing the emotions that arise when a person is presented with a complex or irreconcilable dilemma. In certain circumstances, shame and guilt may be appropriate and have a positive function if they lead to insight and changed behaviour.

[81] E Jones, *Moral injury in a context of trauma* (British Journal of Psychiatry, Vol 216, pages 127-128, 2020), at 127, accessed at <https://www.cambridge.org/core/services/aop-cambridge-core/content/view/82DE047143C9669BDFEDC81E614A8CA5/S000712502000046Xa.pdf/moral-injury-in-a-context-of-trauma.pdf>.
[82] Ibid.
[83] Ibid., at 128.
[84] Ibid., at 127.
[85] Ibid., at 128.

> In the context of this themed issue on disasters and trauma, the key question remains, what value would a diagnostic variant of moral injury hold for clinicians? If it adds a missing or complementary element to PTSD and results in supplementary treatments, then it will have proved its worth. Although a consensus is forming around a definition and a number of rating scales have been proposed to measure injurious events and symptoms, the current challenge is the design of effective interventions. As moral injury does not fall within the exclusive territory of the psychiatrist or clinical psychologist, it is difficult to predict what forms these might take. Because it relates to ethical behaviour, the meaning attached to events and perceptions of the self, moral philosophy and spirituality could add a material dimension to treatments. Moral injury in the absence of PTSD might plausibly be resolved by a priest or an ethicist. The vain hope that governments, institutions and hierarchical bodies in general will seek to promote ethical behaviour is unlikely to be realised, so we may be certain that the phenomenon of moral injury will continue to flourish for the immediate future.

87. Within the Australasian context, Volume 1 of the September 2024 Final Report of the Commonwealth of Australia Royal Commission into Defence and Veteran Suicide states the concept of moral injury "is relatively new and is not yet widely acknowledged as a risk factor for suicide and suicidality among military personnel."[86] The Executive summary, recommendations and the fundamentals of the Final Report describes moral injury in the context of defence and veteran populations as "the lasting psychological, biological, spiritual, behavioural, and social impact of perpetrating, failing to prevent … bearing witness to, or learning about acts that transgress deeply held moral beliefs and expectations."[87] Recommendation 78 (of 122) in the Final Report focuses specifically on moral injury. An extract of the recommendation is **attached** and marked "**I**" at page 289 of the **Exhibit Bundle.** It is included in this evidence brief because of the opportunity for

[86] Royal Commission, *Royal Commission into Defence and Veteran Suicide Executive summary, recommendations and the fundamentals* dated 2024, at [205], accessed at <https://defenceveteransuicide.royalcommission.gov.au/system/files/2024-09/final-report-volume-1.pdf>.
[87] Royal Commission, *Royal Commission into Defence and Veteran Suicide Executive summary, recommendations and the fundamentals* dated 2024, at [205], accessed at <https://defenceveteransuicide.royalcommission.gov.au/system/files/2024-09/final-report-volume-1.pdf>.

the ANZUS Alliance to consider collaborative research to enhance our understanding of the intergenerational impact of moral injury in Commonwealth cohorts of British nuclear test veterans.

88. Over the past three years the National Collaborative for Restorative Initiatives in Health (the Collaborative) have partnered with Te Tāhū Hauora Health Quality & Safety Commission and held workshops and hui to build a "healing, learning and improving from harm framework" to facilitate developing enabling restorative justice policies and practices in our health and disability sector. Whilst the NZNTVA have not yet, to my knowledge, explored how these restorative justice processes might ameliorate moral injury experienced by some Grapple veterans and their whānau members, the implications of the key principles and practices described in the framework report that feeling heard and validated reduces compounding harm.[88] The Collaborative describes how experienced practitioners facilitate the co-design of restorative processes, by preparing all the parties and supporting debriefing that enables responsibility taking. During that process responsible parties hear about the harm experience and become enabled to identify individual and shared responsibilities.

89. The Te Tāhū Haurora Restorative practice workbook emphasises that restoring relationships and building trust are foundational aspects of creating safe conditions for learning when exploring health care harm.[89] The text explains that restorative principles are concerned with "restoring or upholding human dignity, or tapu, which is understood to be restored or eroded within human relationships, or whanaungatanga".[90] The restorative practice framework honours Te Tiriti o Waitangi with the concept of hohou te rongo, a tikanga-based Māori peace-making practice in which "the restoration of tapu and mana is sought through re-balancing and repairing relationships that have been diminished by a violation, by an act of

[88] The National Collaborative for Restorative Initiatives in Health, *He Maungarongo ki Ngā Iwi: Envisioning a Restorative Health System in Aotearoa new Zealand* dated 2023, accessed at <https://www.hqsc.govt.nz/assets/Our-work/System-safety/Restorative-practice/Publications-resources/Envisioning-a-Restorative-Health-System-May-2023.pdf>.
[89] Te Tāhū Hauora Health Quality & Safety Commission, *Restorative responses Learning from harm workbook* dated 2023, accessed at <https://www.hqsc.govt.nz/assets/Our-work/System-safety/Adverse-events/Publications-resources/LFH-restorative-practice-workbook-June23.pdf>.
[90] Te Tāhū Hauora Health Quality & Safety Commission, *Restorative responses Learning from harm workbook* dated 2023, at 6, accessed at <https://www.hqsc.govt.nz/assets/Our-work/System-safety/Adverse-events/Publications-resources/LFH-restorative-practice-workbook-June23.pdf>.

whakanoa".[91] Stephanie Turner (Ahuahu Kaunuku |Director of Māori health outcomes at Te Tāhū Hauora Health Quality & Safety Commission) observed:[92]

> Hohou te rongo focuses on the importance of relationships, accountability and the restoration of balance when health care harm has occurred. It starts with understanding the needs of whānau and puts this at the centre of the approach to addressing harm.

90. The needs of the Grapple veterans' whānau were central to the NZNTVA's written submission, alongside Ruth McKenzie, Roy Sefton and Tere Tahi's expressed desire to follow a collaborative co-design approach when engaging with the EMP members. However, the evidence in this section reveals the significant challenges the NZNTVA leaders faced during that engagement. Te Pou's September 2024 Trauma-informed approach literature review summary provides fresh insights about the need for trauma-informed approaches in Aotearoa's mental health and addiction services that understand ongoing institutional or systemic barriers, including access to kaupapa Māori-informed healing processes and the "lack of acknowledgement and understanding by the health workforce on the impacts of historical intergenerational trauma".[93]

<u>EMP's ToR - Responsibilities of Expert Panel Members and the Chair</u>

91. The final bullet point under the Responsibilities of Panel Members about their need to demonstrate fairness is particularly pertinent.[94] The evidence presented in this brief does suggest that the concept of fairness was compromised during the engagement with the Expert Panel; both unintentionally (due to administrative and communication blunders), but also

[91] Te Tāhū Hauora Health Quality & Safety Commission, *Restorative responses Learning from harm workbook* dated 2023, at 7, accessed at <https://www.hqsc.govt.nz/assets/Our-work/System-safety/Adverse-events/Publications-resources/LFH-restorative-practice-workbook-June23.pdf>.
[92] NZ Doctor Rata Aotearoa, *National framework explores a different approach to health care harm in Aotearoa New Zealand* dated 19 May 2023, accessed at <https://www.nzdoctor.co.nz/article/undoctored/national-framework-explores-different-approach-health-care-harm-aotearoa-new>.
[93] Te Pou, *Trauma-informed approach literature review summary* dated September 2024, at 2, accessed at <https://d2ew8vb2gktr0m.cloudfront.net/files/resources/Te_Pou_Trauma_Informed_Approach_Lit_Review_2024_Sept_update_v2.pdf>.
[94] See for comparison Exhibit Bundle, "H", Ministerial Advisory Group on Veterans' Health, *Terms of Reference for the Expert Panel on Veterans Health*, at 286, [15].

intentionally, on account of the Panel following a perplexing kaupapa that Ruth McKenzie described in her 23 February 2011 letter to Professor John Campbell as a "lack of any two way communication". The letter is **attached** and marked "**J**" at page 291 of the **Exhibit Bundle**. In that letter Ruth suggested:[95]

> Perhaps you are reluctant to enter into any dialogue because we are lay people. The fact is that matters we raise, usually in letters, are never answered. In the meetings it is quite clear that, although you are interested in the responses to the questions you raise, we are in the dark as to what the Panel is thinking of the matters that we raise.

92. She continued, citing an example of the Panel's communication style in action:[96]

> An example of this is seen in the transcript [of the second meeting on 4/08/2010] where Roy asked if you had read a paper he had sent you, and then again if you had read the peer review of Professor Rowland's study by David Brenner, one of the most highly regarded radiation experts in the world. In both cases there were several nods of agreement that "Yes we've read that!" but absolutely no feedback. Not even the vaguest suggestion that you think it's a load of rubbish! Nothing! It's like a bad marriage!

93. Ruth McKenzie explained to Prof. Campbell that whilst the NZNTVA delegates "have real respect for your medical knowledge in your various fields of expertise, we have absolutely no evidence that one person on the Panel understands the consequences of ionising radiation." And then posed some questions to Prof. Campbell:[97]

> So again, I wonder, why is the panel so negative about this study?

[95] Exhibit Bundle, "J", Ruth McKenzie, *Letter to Professor John Campbell* dated 23 February 2011, at 291.
[96] Exhibit Bundle, "J", Ruth McKenzie, *Letter to Professor John Campbell* dated 23 February 2011, at 291.
[97] Exhibit Bundle, "J", Ruth McKenzie, *Letter to Professor John Campbell* dated 23 February 2011, at 293.

> Without looking at the health issues of the men or the families, it appears that there is a concerted aim to find something to demean Professor Rowland's work and any others who support our cause.
>
> It would appear that this is done in the name of the Panel's dedication to science, and I note the passion with which "methodology" is pursued in every study that has come your way – even in the case of Professor David Brenner's peer review I must confess when again the phrase was used against Professor Busby's analysis of the British children, I just grinned. Over use of one concept, I suppose. Not one comment was forth-coming about the similarities between the health conditions of the UK and the NZ children. Not a word!
>
> But I have to wonder about the noted dedication extending to all branches of science. Why is the panel so adamant about its refusal to meet with Professor Rowland if there is a need for clarification of any aspect of his work? And why are we the ones looking for the truth about the chromosomal damage in our sick children if truth is the Panel's primary aim? I do hope it is. To me it is incomprehensible that the passion for truth is ours and not the Panel's.

94. Ruth McKenzie stated in her final paragraph before signing off her letter with "For NZNTVA" below her signature: "I do hope for better communication in future. It would be so good to collaborate, rather than butting heads!" I concur with Ruth McKenzie's observation of the NZNTVA delegates' interactions with the Panel and understand the reasons for her plea for more open communication. At the time I was perplexed by what appeared to be very defensive responses from the Panel, and wondered if their silence and unwillingness to participate freely in any meeting discussions related to their lack of expert knowledge about the differing impacts of nuclear exposures within the context of Operation Grapple?

95. The 4th August 2010 meeting transcript reveals that at the start of the meeting Roy Sefton had raised the issue of communication challenges with

the Panel[98]. He also expressed concerns about the affordability and equity of access to the Panel's processes for individual veterans and their whānau:[99]

> Prof. John Campbell: Thank you again for joining us, we do appreciate you giving up your time to come. The main purpose of this meeting is really to get your comments on the reviews of the studies. We, as you know, after our last meeting, we sent the studies out for comment and before we take any action on the reviews, we want your views on them. We've allocated an hour's meeting for that, but if you feel that's insufficient, if you want more time to deal with the reviews, then please let us know. We're very happy to do that, if you think that's necessary. So we've read the reports; we've read the initial studies; we're interested in your comments for discussions.
>
> Roy Sefton: John, before we start into the peer reviews, there's – I'd just like a little brief period of time to bring up one or two matters. Um, first of all, it was reported on the 19th of August, 2009, that the Panel exists, and the names are known – this was at the announcement of the Panel – and that "the first task will be to establish detailed terms of reference, working methods, and work plan. We will keep everyone abreast of developments as they occur." Ah, we felt that that really hasn't happened at all. And uh, that the most important example of that is in fact the Otago – for want of a better name – research proposal. And, I found out about it by accident; and the proposal that I received has in fact conflicted with – particularly in the aims area from statements out of Veterans' Affairs and/or the Minister, because considering it's really the Manager of Veterans' Affairs who is handling all of her replies, it seems to be a bit of a conflict there. Um, the other thing, too, that sort of just worried us a little – the meeting here was called here today, but we had no agenda – so in fact, we've spent an awful lot of money in airfares and accommodation to be here,

[98] Exhibit Bundle, "G", *Transcript of New Zealand Nuclear Test Veterans Association's meeting with the Expert Medical Panel* dated 4 August 2010, at 269-270.
[99] Exhibit Bundle, "G", *Transcript of New Zealand Nuclear Test Veterans Association's meeting with the Expert Medical Panel* dated 4 August 2010, at 269-270.

but we didn't know why we were here until this moment. And it would have been very helpful had we had some indication as to why we were here. In fact, I must confess, with regard to the peer reviews, had I known I was here for that, I would have given it much more attention. Mainly because I'm of the opinion, the strong opinion, that Professor Rowland, or Dr. Al Rowland, um, needs to be – as I've said many times – interviewed, and his views sought on a number of issues that have really damaged the um, image of that research; and not the image of it, the quality of it.

There's also another thing that does make us wonder a little. If this Expert Panel is to operate on behalf of veterans, and veterans groups, and if you take individuals in particular. If they are to see you, and are in fact sick and on a restricted income, how can they afford to come down here and do the sort of thing we're doing? I mean, for us to keep up this sort of relationship with you, and be able to afford it, will mean that we will be broke in a very short time.

Um, you sent me information on the peer reviews. There was no information, it was obliterated. Any information on the reviewers, or their contact address was removed. Not that I was going to get hold of them and say anything to them, because once again, Dr. Rowland will be able to answer any queries that are there in the main. I'm wondering also, the Psychological Impact study - did that get peer reviewed or not?

Prof. Campbell: Yes, you should have a copy of the peer reviews.

Roy Sefton: Uh… no.

Judy Blakey: No. That was never done. And in fact, there was a letter here from you saying that it would be included.

Prof. Campbell: Right. That should be –

> Judy Blakey: The letter dated 1st of September, 2009, but it wasn't. In fact, we were contacted by the parliamentary library, asking for copies of that particular study. it doesn't seem… has anyone here read it?
>
> Prof. Campbell: We've all read the studies, and read the peer reviews.
>
> Judy Blakey: And the stuff related to the (?submission)? Yeah?
>
> Prof. Campbell: And our understanding was, the Panel's understanding was, that you had?
>
> Judy Blakey: Nope. Nothing.
>
> Roy Sefton: No.
>
> Prof. Campbell: My apologies for that.
>
> Roy Sefton: However, it has been done and that's, that's at least one good step forward, and perhaps we could get a copy of that?
>
> Prof. Campbell: We'll certainly get you a copy of that.

96. The Responsibilities of the Chair in the Panel's Terms of Reference included agenda setting for the Expert Panel meetings; finding consensus on issues before the Expert Panel and commissioning additional work and/or seeking additional expert opinions, where necessary.[100]

97. Routine meeting kaupapa such as distributing a meeting agenda and circulating meeting minutes afterwards was not followed during engagements with the Medical Expert Panel. At the 4th August 2010 meeting Prof. Campbell apologised for not circulating the Psychological Impact peer reviews prior to the meeting, affirming "that should have come

[100] Exhibit Bundle, "H", Ministerial Advisory Group on Veterans' Health, *Terms of Reference for the Expert Panel on Veterans Health*, at 286, [16].

to you."[101] The meeting transcript revealed how Prof. Campbell explained the oversight with the observation: "It may have been that we've had three different people serving committees, that makes it difficult for … (inaudible – cup moving) ?sharing of? reviews."[102] Prof. Campbell's observation suggested indirectly that the administrative support was not functioning properly. In retrospect I do wonder if what the NZNTVA delegation experienced in their haphazard dealings with the Panel Chair, which Ruth McKenzie described as "time-wasting lack of business procedure"[103], could have been early manifestations of Prof. Campbell's subsequent diagnosis of early onset dementia? Ruth McKenzie expressed her frustrations and insightful reflections on having to deal with such unexpected and inconvenient events, by writing in her letter addressed to Prof. John Campbell:[104]

> Most of us are pretty grounded in things like agendas and circulated minutes, and see the necessity for them. Where there is no agenda there can be no preparation, where there are no minutes there is no continuity of ideas so no progress.
>
> Take our second meeting for instance, where the first indication of the purpose of the meeting, was when you opened proceedings by telling us we were there to discuss the peer reviews that you had gathered. As you know we hadn't received any copies, which left us and the meeting, a bit flat footed. Again, communication was the problem. As this subject was the first matter raised at the third meeting, it must be important to you! I don't understand why our opinion would be important, when we are not bio-scientists. Surely the only opinion worth hearing would come from a person with similar academic training.
>
> Another cause for the lack of understanding between us, from my personal point of view, was that because you were a panel of medical experts I thought you would be interested in the

[101] Exhibit Bundle, "G", *Transcript of New Zealand Nuclear Test Veterans Association's meeting with the Expert Medical Panel* dated 4 August 2010, at 270.
[102] Exhibit Bundle, "G", *Transcript of New Zealand Nuclear Test Veterans Association's meeting with the Expert Medical Panel* dated 4 August 2010, at 270.
[103] Exhibit Bundle, "J", Ruth McKenzie, *Letter to Professor John Campbell* dated 23 February 2011, at 292.
[104] Exhibit Bundle, "J", Ruth McKenzie, *Letter to Professor John Campbell* dated 23 February 2011, at 292.

> health of the people we represent! I obviously got that wrong, for the panel has never commented on the material it has been given. I looked at the terms of reference for the EP and see that there is a leaning, perhaps, towards the scientific rather than the medical. This would explain the steps that the EP has taken to date.

EMP's ToR - Deliberations, reports and VANZ' administrative support

98. Roy Sefton's 8 June 2010 letter to Hon. Judith Collins asked what criteria VANZ applied when recognising research evidence that informed their decisions?[105] An extract of Roy Sefton's letter to Hon. Judith Collins is **attached** and marked "**K**" at page 295 of the **Exhibit Bundle.** He then provided details in Paragraph 5 of interactions between Associate Professor Al Rowland and Mr Ottaway who managed VANZ:[106]

> On the 19th March 2009 I wrote a letter to you headed, "VANZ recognition/use of the Massey University Research", I asked if the Massey research was "official" or "outside" research. I quoted Mr Ottaway's letter to me of 10th March 2009 where he stated:-."VANZ does not officially endorse any research carried out by outside agencies". Obviously the Massey research was not officially endorsed.
>
> A/Prof Al Rowland arranged for Mr Ottaway to telephone him so that he could make sense of how his research was perceived and what use it would be put to. There was reluctance to accept the Massey research because of: – it not being government funded, (The initial cost of the research was $100,000, to be paid for out of the government grant). Not being peer reviewed, (The cytogenetic Analysis had, and also had been published), the research was initiated by veterans'. (It was, and forgive me, it certainly outshone the "Reeves" and other reports initiated by governments and VANZ over the years.) There is opinions amongst many, that unless any

[105] Exhibit Bundle, "K", Roy Sefton, *Letter to Hon. Judith Collins* dated 8 June 2010, at 295-296.
[106] Exhibit Bundle, "K", Roy Sefton, *Letter to Hon. Judith Collins* dated 8 June 2010, at 295.

> initiatives are originated by Government or VANZ, then they are considered worthless.

99. Paragraph 12 of the same letter drew attention to VANZ and the NZ government's practice of ignoring research evidence that NZNTVA shared, if the findings were "seen as unfriendly to the Nuclear industry and weapons countries." He wrote:[107]

> I am hopeful that the Expert Panel will not employ such ignorance and will seek wider opinion in considering nuclear test veteran's issues. Internationally nuclear test veterans organisations are becoming well versed in nuclear health and research and other related issues. Indeed it is clear that in some countries the veteran's knowledge has overtaken that of those charged with administering their war pensions and other affairs. Many of the veteran's organisations are now supported and assisted by academics.

100. Roy Sefton's 8 June 2010 letter to Hon. Judith Collins also articulated the NZNTVA's discomfort with the use of the term 'Expert Panel' in relation to the group of medical staff selected to serve on the Panel, stating:[108]

> A point aside, and with the greatest respect, many, including myself consider the term 'Expert Panel' should not be used. There are many areas of science and medicine, especially in nuclear issues, where no one can be considered to be 'an expert'. Additionally much good research goes ignored.

101. Explaining why he was raising this point, Roy Sefton noted how in the past VANZ had completely ignored research and opinion that he had shared from scientists such as Dr Karl Morgan (the father of health physics in the USA) and Dr Rosalie Bertell (a Catholic nun and environmental epidemiologist), whose publications and actions drew attention to the dangers of radiation, especially in the nuclear industry.[109] It is noticeable that with the passage of

[107] Exhibit Bundle, "K", Roy Sefton, *Letter to Hon. Judith Collins* dated 8 June 2010, at 296.
[108] Exhibit Bundle, "K", Roy Sefton, *Letter to Hon. Judith Collins* dated 8 June 2010, at 296.
[109] Exhibit Bundle, "K", Roy Sefton, *Letter to Hon. Judith Collins* dated 8 June 2010, at 296.

time the term ‘Expert Medical Panel’ has transitioned to ‘Advisory Health Panel’.[110]

102. Seeking peer reviews of the Te Kunenga ki Pūrehuroa Massey University NZNTV cytogenetic research findings, Prof. Campbell approached a geneticist at the University of Leicester, Professor Yuri Dubrova, to call upon other relevant disciplinary input in the form of cytogenetic analysis to the Panel’s deliberations. Documentation from that review process that was eventually shared with the NZNTVA leadership revealed that on receipt of Professor Dubrova’s positive review of Rowland et al.’s cytogenetic research, Prof. Campbell asked an unnamed local academic (Reviewer A) to review the “two original reports by Al Rowland and his colleagues and the letter sent to you on 29 March by Professor Dubrova.”[111] The introductory paragraph of Reviewer A’s letter thanked Professor Campbell for asking him “to assess Professor Dubrova’s review of the NZ Nuclear Test Veterans’ Study; in particular to ascertain the degree to which participant selection and adjustment for confounders may have influenced the findings.”[112]

103. It is noteworthy that despite the attempts to invalidate the Te Kunenga ki Pūrehuroa Massey University cytogenetic research findings on the basis of inappropriate participant selection, Reviewer A’s letter stated:[113]

> The choice of groups seems appropriate, although the details of how the controls were selected are a bit brief. Some information is given about the participation rate among veterans who were approached to be in the study. The authors report that 6 of 50 selected eligible veterans withdrew (response 88%). The response rate among eligible controls is

[110] Veterans’ Affairs New Zealand, *Veterans’ Health Advisory Panel* dated 13 August 2024, accessed at <https://www.veteransaffairs.mil.nz/about-veterans-affairs/our-partners-and-the-veteran-sector/boards-and-panels/veterans-health-advisory-panel/>.
[111] Exhibit Bundle, “C”, Ministerial Advisory Group on Veterans’ Health, *letter to Hon. Judith Collins regarding review of the research undertaken by Massey University on behalf of the New Zealand Nuclear Test Veterans Association* dated 23 December 2010, page 226.
[112] Exhibit Bundle, “C”, Ministerial Advisory Group on Veterans’ Health, *letter to Hon. Judith Collins regarding review of the research undertaken by Massey University on behalf of the New Zealand Nuclear Test Veterans Association* dated 23 December 2010, page 226.
[113] Exhibit Bundle, “C”, Ministerial Advisory Group on Veterans’ Health, *letter to Hon. Judith Collins regarding review of the research undertaken by Massey University on behalf of the New Zealand Nuclear Test Veterans Association* dated 23 December 2010, page 226.

not given. Individuals in the exposed group smoked more than the controls (for 27 versus 17 years on average).

Details of the control participants' recruitment and selection are provided in the New Zealand Nuclear Test Veterans' Study: A Pilot Project (Psychological Impact) Report, Rebekah Jourdain's doctoral thesis, and Dr Al Rowland's 25 November 2019 Response to the Summary of Expert Reviews.

104. As noted earlier, Reviewer A's letter concluded by identifying four aspects that he perceived as weaknesses in the study design.[114]

105. Firstly, the "small number of veterans and controls included"[115] in the research – a statement that suggests:

a. Reviewer A appeared to be unaware of the realities of the research context, particularly the rationale behind undertaking this type of innovative cytogenetic research in the first place; and the associated cost containment, which resulted in the study's architects making extremely careful estimates of projected research sample sizes, prior to recommending the minimal viable numbers of participants who would provide sufficient data to enable robust statistical analyses of the selected cytogenetic assays.

b. Reviewer A's default critical focus was closely aligned with the Panel's clear preference for epidemiological research, when conducting retrospective investigations of potentially hazardous radiation exposure on the veterans and their whanau's health and wellbeing. Given the subsequent revelation by VANZ of Reviewer A's professional status as a Public Health Physician and epidemiologist (with a special interest in the causes of cancer in children) at Ōtākou Whakaihu Waka University of Otago, his

[114] Exhibit Bundle, "C", Ministerial Advisory Group on Veterans' Health, *letter to Hon. Judith Collins regarding review of the research undertaken by Massey University on behalf of the New Zealand Nuclear Test Veterans Association* dated 23 December 2010, page 227.
[115] Exhibit Bundle, "C", Ministerial Advisory Group on Veterans' Health, *letter to Hon. Judith Collins regarding review of the research undertaken by Massey University on behalf of the New Zealand Nuclear Test Veterans Association* dated 23 December 2010, page 227.

philosophical approach to reviewing the NZNTVA research was not surprising.

106. The other three research design weaknesses Reviewer A raised are presented after these reflective comments: Compiling this brief, I have become aware that Reviewer A (aka Associate Professor John Dockerty) was subsequently the lead author of the May 2020 NZ Medical Journal article titled The New Zealand nuclear veteran and families study, exploring the options to assess heritable health outcomes.[116] Dr Dockerty led that research project alongside his medical colleague Dr David McBride, with assistance from a group of "final year medical students, carrying out a 'health care evaluation project' as part of their studies".[117] Only seven (5%) of the study's research participants identified as having links with Operation Grapple, whilst the remaining 141 (95%) identified as Mururoa veterans and their descendants. The focus on the Mururoa deployment arose when the NZNTVA declined to participate in the Expert Panel's sponsored research. The NZNTVA's decision reflected their leaders' and members' responses to the Expert Medical Panel's poor communication and lack of transparency throughout the 2009-2011 engagement process, which resulted in Roy Sefton's observation that the NZNTVA had been side-lined by the Expert Panel.

107. A thematic narrative thread identified in the 4 August 2010 meeting transcript expressed the NZNTVA's concerns about the passage of time in relation to conducting, reviewing, and then translating research findings into impactful outcomes for veterans and their whānau. During that meeting Roy Sefton explained these concerns:[118]

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[116] J Dockerty, et al., *The New Zealand nuclear veteran and families study, exploring the options to assess heritable health outcomes* (New Zealand Medical Journal, Volume 22, No. 133, pages 70-78, 2022), accessed at <https://nzmj.org.nz/media/pages/journal/vol-133-no-1515/the-new-zealand-nuclear-veteran-and-families-study-exploring-the-options-to-assess-heritable-health-outcomes/b7e871f2d4-1696471715/the-new-zealand-nuclear-veteran-and-families-study-exploring-the-options-to-assess-heritable-health-outcomes-open-access.pdf>.

[117] J Dockerty, et al., *The New Zealand nuclear veteran and families study, exploring the options to assess heritable health outcomes* (New Zealand Medical Journal, Volume 22, No. 133, pages 70-78, 2022), at 72, <https://nzmj.org.nz/media/pages/journal/vol-133-no-1515/the-new-zealand-nuclear-veteran-and-families-study-exploring-the-options-to-assess-heritable-health-outcomes/b7e871f2d4-1696471715/the-new-zealand-nuclear-veteran-and-families-study-exploring-the-options-to-assess-heritable-health-outcomes-open-access.pdf >.

[118] Exhibit Bundle, "G", *Transcript of New Zealand Nuclear Test Veterans Association's meeting with the Expert Medical Panel* dated 4 August 2010, at 272.

> Sorry, sorry, just before we go on, this is a real point I want to make: We would rather see that research on the veterans dumped, because we feel that by the time it's completed, government and VANZ have studied it, and made up their minds about what they're going to do; and then if anything is going to be implemented, by the time it's implemented, and got into the system and got it running, you've completed a research study that is in fact, only of use to a very, very small group of surviving veterans, as there will be then.

108. Evidence of the NZNTVA's sentiments in relation to the Panel's sponsored research surfaced earlier, in Roy Sefton's 8 June 2010 letter to Hon. Judith Collins, which opened by raising concerns about the Panel's lack of collaboration with the veterans when planning the research:[119]

> Clearly as the lack of consultation with NZNTVA on the proposed Otago University research shows, we are still in non-consultation mode. The majority of our concerns require urgent attention. We do not have the living time for normal political processing.

109. Roy Sefton's prophetic statement about having insufficient living time is poignant, as he died on 5 January 2021, shortly after Dockerty et al.'s May 2020 NZ Medical Journal paper was published; and a decade after the NZNTVA members had declined to participate in the Expert Panel's sponsored research study, titled: *The mortality experience of New Zealand Operation Grapple Veterans: Project Proposal*. The project proposal is **attached** and marked "**L**" at page 297 of the **Exhibit Bundle**. That research proposal aimed to "describe the mortality experience of the Op. Grapple Veterans by comparing them to the NZ population and also a matched control group."[120] However, as noted in the letter extract above, the research proposal was developed without any consultation with the Grapple veterans and their whānau, although the text stated that collaborative links would be provided by Dr McBride, who would "liaise with the relevant service groups,

[119] Exhibit Bundle, "K", Roy Sefton, *Letter to Hon. Judith Collins* dated 8 June 2010, at 295.
[120] Exhibit Bundle, "L", *D McBride et al., The Mortality Experience of New Zealand Operation Grapple Veterans: Project Proposal*, at 297.

for example the New Zealand Nuclear Test Veterans Association."[121] The NZNTVA leaders and members were offended by the researchers' lack of engagement with the veterans, when they were developing the research proposal.

110. Roy Sefton's six page letter to Prof. John Campbell, Hon. Judith Collins et al. dated 29 April 2010, explained that following Dr McBride's engagement with NZNTVA members at their 17th April 2010 conference, and his presentation about the proposed 'mortality experience' research, the members had unanimously agreed to forward "to the Chair of the Expert Panel, the Minister of Veteran's Affairs, the National President of the RNZRSA and other interested agencies and parties, a communication advising of the Operation Grapple veterans' "List of Wants".[122] An extract of Roy Sefton's letter is **attached** and marked "**M**" at page 299 of the **Exhibit Bundle**. The list of 12 items included these two:

111. Item #1 stated:[123] "The Operation Grapple veteran members of NZNTVA will not take part in the proposed Otago University research." The subtext of NZTVA's collective decision reflected the veterans' increasing distrust of VANZ, whose officials deemed veteran initiated research projects were biased and unreliable, and therefore unacceptable sources of evidence about their health and wellbeing needs. The rationale for such low Operation Grapple participation rates that was proffered by Dockerty et al. (2020) in their article cited a more palatable rationale, namely:[124]

> The participation of Grapple veterans was extremely low, however they have their own association, the New Zealand Nuclear Test Veterans Association, whose view is that no

[121] Exhibit Bundle, "L", *D McBride et al., The Mortality Experience of New Zealand Operation Grapple Veterans: Project Proposal*, at 297.
[122] Exhibit Bundle, "M", Roy Sefton, *Letter to Professor John Campbell, Hon. Judith Collins et al.,* dated 29 April 2010, at 299.
[123] Exhibit Bundle, "M", Roy Sefton, *Letter to Professor John Campbell, Hon. Judith Collins et al.,* dated 29 April 2010, at 299.
[124] J Dockerty et al, *The New Zealand Nuclear and Families Study, Exploring the Options to Assess Heritable Health Outcomes* (New Zealand Medical Association, Volume 133, No. 1515, May 2020), at 75, accessed at <https://nzmj.org.nz/media/pages/journal/vol-133-no-1515/the-new-zealand-nuclear-veteran-and-families-study-exploring-the-options-to-assess-heritable-health-outcomes/b7e871f2d4-1696471715/the-new-zealand-nuclear-veteran-and-families-study-exploring-the-options-to-assess-heritable-health-outcomes-open-access.pdf>.

> further testing of veterans is desirable, the focus should be shifted to children.

112. Item #3 in the NZNTVA "List of Wants" revealed the Association members' concerns about the official response to the "Massey University studies", and requested that they "be immediately recognised" as:[125]

> +3a. Government approved and funded studies.
>
> +3b. Be changed from the VANZ category of "Unacceptable Research" to "Acceptable Research."
>
> +3c. A/Prof Rowland be URGENTLY CONSULTED about genetic damage detected in the "Cytogenetic Analysis" and the stress and anxiety and the related physical health conditions found in the "Psychological Impact study".
>
> +3d. The past failure of VANZ to invite A/Professor Rowland to meet and discuss issues related to the research is, in the opinion of NZNTVA, a display of unprofessionalism and arrogance on the part of VANZ and the NZ Government. That attitude was further frustrated when after perfectly efficient peer review and publication in a reputable European journal, VANZ through the Expert Panel, sought a second set of National and International peer review. A/Professor Rowland is a highly respected Scientist. NZNTVA insists that A/Professor Rowland receives an Apology.

113. The second design weakness Dr Dockerty (Reviewer A) identified was the "use of 'surrogate' endpoints (SCEs and translocations), which might not relate to health or vital status of the men" – a statement that highlighted the disconnect for Reviewer A between an unfamiliar research context that applied novel cytogenetic assays to detect historic radiation exposure, and the traditional clinical and epidemiological approaches that synchronised

[125] Exhibit Bundle, "M", Roy Sefton, *Letter to Professor John Campbell, Hon. Judith Collins et al.,* dated 29 April 2010, at 299.

more comfortably with his professional background and the scope of his work and research experiences.[126]

114. Dr Dockerty's third design weakness noted the "inadequately described participation rate of the control group"[127] – a methodological detail that Dr Al Rowland addressed in his 25 November 2019 Response to the Summary of Expert Reviews. Dr Al Rowland's response is **attached** and marked "**N**" at page 302 of the **Exhibit Bundle**. It is noticeable that a full decade after NZNTVA's first EMP meeting (20 August 2009), Dr Rowland was eventually afforded the opportunity to respond to criticisms; an opportunity that only presented following persistent advocacy from the NZNTVA and others about the unfairness of the first Expert Panel's review processes, which initially failed to offer any of the researchers a right of reply to critical reviews.

115. Lastly, the supposition that "If exposed veterans were more likely to be ill or die as a consequence of their exposure (hence be excluded) then this could cause a bias which might underestimate the impact of irradiation."[128] The ambiguity of this supposition certainly reflected the challenges inherent in retrospective explorations decades after the exposure events. The implication that a retrospective epidemiological mortality and morbidity study might clarify the estimation of the impact of irradiation was rejected by the NZNTVA members.

116. After attending the 4th August 2010 meeting with the Expert Medical Panel in Defence House, Wellington, I emailed Prof. John Campbell and his Administrative Assistant James Mist (Cc-ed to the NZNTVA delegates Roy Sefton, Ruth McKenzie, Tere Tahi and Catherine Trundle), to request a response from Prof. Campbell in relation to the NZNTVA delegation's concerns about the unsatisfactory engagement processes. My email to Prof. John Campbell is **attached** and marked "**O**" at page 312 of the **Exhibit**

[126] Exhibit Bundle, "C", Ministerial Advisory Group on Veterans' Health, *letter to Hon. Judith Collins regarding review of the research undertaken by Massey University on behalf of the New Zealand Nuclear Test Veterans Association* dated 23 December 2010, page 227.
[127] Exhibit Bundle, "C", Ministerial Advisory Group on Veterans' Health, *letter to Hon. Judith Collins regarding review of the research undertaken by Massey University on behalf of the New Zealand Nuclear Test Veterans Association* dated 23 December 2010, page 227.
[128] Exhibit Bundle, "C", Ministerial Advisory Group on Veterans' Health, *letter to Hon. Judith Collins regarding review of the research undertaken by Massey University on behalf of the New Zealand Nuclear Test Veterans Association* dated 23 December 2010, page 227.

Bundle. The email began by explaining that the day before I had emailed my local MP, Hon. Wayne Mapp (who was the Minister of Defence at the time, and whom Ruth McKenzie and I had visited at his Takapuna electorate office in March 2010), and Cc-ed Prof. Campbell into that email, which had "identified a litany of issues that illustrated why the NZNTVA delegation stated their engagement with the Expert Panel (EP) had been devoid of democratic accountability."[129] I asked if Prof. Campbell would please respond to resolve the administrative inadequacies that I had listed in the email sent to Hon. Wayne Mapp, which included:[130]

a. Despite tape recording the 2009 EP meeting proceedings, the NZNTVA delegation members have never received any minutes from their 20 August 2009 consultation meeting.

b. The only communication that had been received was a letter, dated 1 September 2009, and signed by Prof. John Campbell, "which detailed a sequence of collaborative follow up actions the Expert Panel (EP) agreed to progress, in order to secure appropriate reviewers to critique the three Massey University reports (i.e. Rowland et al.'s Sister Chromatid Exchange, Cytogenetic Analysis reports and Podd et al.'s Psychological Impact Pilot Study; a copy of the contents of this letter are included in the text below).

c. It is noticeable that Prof. Campbell stated in the aforementioned letter to the NZNTVA delegates: "The Panel is currently in the process of identifying suitable candidates to undertake these reviews. Once the reviewers have been selected the Panel will consult with you to ensure that you agree with the selections." However, he subsequently failed to follow up with any further communication of any sort with any delegates. My email posed seven questions related to the follow-up, namely:

    i. Who had the EP approached to complete the review(s)?

[129] Exhibit Bundle, "O", Judy Blakey, *Letter to Professor John Campbell* dated 4 August 2010, at 312.
[130] Exhibit Bundle, "O", Judy Blakey, *Letter to Professor John Campbell* dated 4 August 2010, at 312-313.

ii. Why had that person been selected?

iii. What was the brief the chosen reviewer(s) had been given?

iv. What time limitations had been stated for the completion of their review(s)?

v. Whether the reviewer(s) would be recompensed, and if so, how much would they be paid?

vi. How the reviews would be disseminated in a timely manner to delegates, once they were received?

vii. Whether the Massey researchers would be afforded the opportunity to defend or elucidate on any criticisms the reviewer(s) raised?

d. Given these glaring omissions, I was amazed that Prof. Campbell did not make a single attempt during Wednesday's meeting (on 4/08/2010) to accord the NZNTVA delegates the courtesy of explaining why he hadn't bothered to deliver on his proposed actions.

e. Likewise, Prof. Campbell made no attempt to apologise for the fact that no NZNTVA delegates were provided with a meeting agenda, prior to the 4 August 2010 meeting.

f. The purpose of the meeting was announced after the meeting had started. This, despite the fact that at 10:30am the day before I had phoned the 0800 number provided in Prof. Campbell's 1 September 2009 letter, and alerted the secretarial staffer, James Mist, of my disquiet about a number of aspects about the meeting, including the inadequate time allocation and the absence of an agenda.

g. As predicted in my Tuesday phone call with James Mist, there was insufficient time to respond to the surprise agenda which Prof.

Campbell announced, namely that of discussing our response to the Massey (cytogenetic) research reviews (which had coincidentally been secured by Roy Sefton on July 21, and forwarded to our delegation). It is unclear whether the chairperson's intention was to suppress soliciting feedback from us for fear of exposing the EP members' own lack of expert knowledge about the specialist topic of cytogenetics and biological dosimetry, or whether this was an extremely inept administrative blunder. Either way, it does not explain that we were expected to comment on the Psychological Impact Pilot Study review, despite the fact that none of us had received a copy of this review; and in fact were unaware that Prof. Campbell had approached and secured the requisite international and national reviewers (as per the industry standards he alluded to in his letter).

h. As a citizen and tax payer I am affronted that Prof. Campbell and other members of the EP are being paid from OUR tax revenue, to attend and deliberate on a panel that has been convened, in this instance, to respond to Grapple veterans and their families' health needs, in a timely and transparent fashion that reflects the values of respect, fair treatment, dignity and independence promoted on the VANZ website. As medical professionals they would undoubtedly endorse the importance of evidence-based practice in health decision-making; and yet I wonder if they are aware of what a rich source of evidence their individual and the panel's collective behaviours have provided for our delegation members, as we have struggled to understand the reasons for their inertia, after such a positive start to our engagement process?

117. Neither Prof. Campbell nor James Mist ever responded to my email.

Narrative threads in the 4 August 2010 EMP meeting transcript

118. The meeting was attended by seven EMP members, only three of whom took an active part in the discussions, namely the Panel Chair Prof. John Campbell ("**JC**"), Cancer Epidemiologist Dr Brian Cox ("**BC**"), and Health

lawyer Dr Marie Bismarck (**"MB")**. The passive EMP members who simply observed the interactions included Emeritus Professor Des Gorman ("**DG**"), Clinical Pharmacologist Dr Tim Maling ("**TM**"), Christchurch Psychiatrist Dr Sandy McLeod ("**SM**"), and the Veterans' representative John Campbell ("**JC2**"). The six NZNTVA delegates comprised Ruth McKenzie ("**RM**") and her daughter Fiona McKenzie ("**FM**"); NZNTVA Chairperson Roy Sefton ("**RS**") and NZNTVA Deputy Chairperson Tere Tahi ("**TT**"); Social Anthropology researcher Dr Catherine Trundle ("**CT**"), and myself ("**JB**"). James Mist ("**JM**") provided secretarial support, although no documentation was provided.

119. Thematic strands woven into the meeting transcript offer insights into the range of topics, perspectives and priorities that emerged during the discussions.[131] Given the absence of an agenda and meeting minutes, the transcript also provided a valuable archival source of information. As Roy Sefton and Ruth McKenzie are no longer alive to reflect on, and report their memories of the meeting, I have included their voices by citing narratives and interactions verbatim from the meeting transcript that are germane to traversed.

Time and timing

120. It is noticeable that when introducing themselves at the start of the meeting both the health lawyer Marie Bismark (Thank you for taking the time to travel and meet with us today), and the Panel Chair, Prof. John Campbell, included appreciative references in relation to time (Thank you again for joining us, we do appreciate you giving up your time to come).[132] Similarly, both of them concluded the meeting by repeating those sentiments in the transcript's closing statements: [MB] Thank you for your time; with the final statements made by the Panel Chair - [JC] Thank you very much for your time. We will be in contact.[133]

[131] Exhibit Bundle, "G", *Transcript of New Zealand Nuclear Test Veterans Association's meeting with the Expert Medical Panel* dated 4 August 2010.
[132] Exhibit Bundle, "G", *Transcript of New Zealand Nuclear Test Veterans Association's meeting with the Expert Medical Panel* dated 4 August 2010, page 268.
[133] Exhibit Bundle, "G", *Transcript of New Zealand Nuclear Test Veterans Association's meeting with the Expert Medical Panel* dated 4 August 2010, page 284.

121. During the approximately 90 minutes of interactions from the beginning to the end of the meeting, the word 'time' was mentioned 49 times. The context of those references varied from instances where 'time' was mentioned as an informal index of historical events (as in [RS] from time to time); through references to the actual passage of time within the meeting (for example [MB] checking in with the Chair about the remaining meeting time that is cited below); to those occurrences where the contextual associations signified more complex connections with significant implications (such as the likely length of time a sponsored epidemiological research project might take) when referring to research in the future.[134] Whilst Roy Sefton made the most individual references to time during the meeting (n=14 or 28.6%), many of his references interrogated the timeliness of generating impactful research outcomes to support Grapple veterans and their whānau.

122. Following a brief discussion about managing potential conflicts of interest appropriately, (because Panel member Dr Brian Cox had both sponsored and was intending to work as a researcher on Dr David McBride's proposed epidemiological study), in the extract below Roy Sefton revealed his scepticism about veterans living long enough to benefit from the research findings, in addition to his lack of trust in VANZ responding in a benevolent manner:[135]

> Roy Sefton: John, can I make a point here, if I may? It's just like to go and – thanks Judy – um, there is one little point that I did miss out, which is extremely important to us with regards to the 'Otago' (Dr David McBride's proposed) research. And very, very basically it's this – if we enter this research, it's set down in the agenda or proposal that I saw, it would take two years to do. And with my experience, certainly with the Massey research and with other research as well, both here and overseas that's been done with nuclear test veterans, they always over run. Not by months, but by years. And I think you would find that you would strike very much of a similar sort of problem there. So let's assume that this study does finally get

[134] Exhibit Bundle, "G", *Transcript of New Zealand Nuclear Test Veterans Association's meeting with the Expert Medical Panel* dated 4 August 2010, page 277.
[135] Exhibit Bundle, "G", *Transcript of New Zealand Nuclear Test Veterans Association's meeting with the Expert Medical Panel* dated 4 August 2010, page 271.

> going – when, I don't know – and it's set down to be completed two years from the time of commencement, it is highly likely that if could in fact run for four years. And I don't mean that lightly. You wouldn't agree?
>
> Brian Cox: Well, the basic limiting step in this particular research is assembling the cohort in the first place. And that is, that is the time consuming part of it. After that, it is a lot of essentially electronic data matching and some follow up of some information. It had been hoped that the Nuclear Test Veterans' Association might be able to help in terms of assembling the cohort, so the thing could get going and run quickly; but without the Nuclear Test Veterans' Association it can't run anyway, because the cohort can't be assembled.
>
> Roy Sefton: We'll just put that aside for one moment. The other thing that, of course, once it's completed – and this is where the problem lies with us – I'm a layman, and I say things like statistical studies can easily be messed around with. Well, that's the experience we've had. And this is the fear that we have, is that once this leaves the researchers' hands, and it gets into the hands of Veterans' Affairs and government, then there is always, as there has been in the past, selective quoting of portions of the research that makes them look good from their side, whatever that may be, and … lost the thread … Yes, little changes for us. So there's a great level of mistrust in particularly Veterans Affairs.

123. Roy Sefton's observations about the timeliness of any further research proved accurate, as Ōtākou Whakaihu Waka Otago University research colleagues Dr John Dockerty and Dr David McBride's New Zealand Medical Journal article that described health conditions in New Zealand nuclear veterans and their offspring, and examined the utility of tests to assess their heritability, was published almost a decade later, on 22 May 2020.[136]

[136] J Dockerty, et al., *The New Zealand nuclear veteran and families study, exploring the options to assess heritable health outcomes* (New Zealand Medical Journal, Volume 22, No. 133, pages 70-78, 2022), accessed at <https://pubmed.ncbi.nlm.nih.gov/32438378/>.

124. What became readily apparent when critically reviewing the transcript, was that after about 50 minutes into the meeting Marie Bismark addressed the Chair, and then two female members of the NZNTVA delegation, asking: "[MB] John, do we have time to see if Fiona and Catherine had anything to add? You've taken the trouble to come and meet with us today, I just wanted to make sure you had time to share your thoughts."[137]

125. After reviewing the transcript I have realised that Tere Tahi was not accorded the same courtesy. Apart from the introductions at the beginning of the meeting, when Tere initiated his greeting "[TT] Kia ora tatou! I'm Tere Tahi. I'm from the New Zealand Nuclear Test Veteran Association. I'm the Vice Chairman"; and had responded to a comment about being almost good looking enough to be a Ngāpuhi too, with the rejoinder "[TT] As a matter of fact I'm a minister of the Ratana church. I've just taken that up.", There's voice was absent from the meeting transcript.[138] Reflecting on the EMP's engagement kaupapa, I realised it was devoid of tikanga, and that the engagement processes revealed a disregard of the need to implement strategies that were respectful of Tangata Māori veterans and honoured Te Tiriti o Waitangi. More education is needed to ensure Crown kāwanatanga authority reflects and upholds the partnership of equals articulated in te Tiriti o Waitangi and Aotearoa's obligations under international human rights law, which includes the rights of indigenous peoples to self-determination.

<u>Western scientific methods and Mātauranga Māori</u>

126. Prof. John Campbell articulated the difficulties the Panel faced in relation to reviewing Al Rowland et al.'s research findings:[139]

> Prof. John Campbell: First, determining whether or not there was chromosomal damage as a result of the nuclear explosion; and then taking the next step to say, having this evidence of chromosomal damage, what are the actual clinical

[137] Exhibit Bundle, "G", *Transcript of New Zealand Nuclear Test Veterans Association's meeting with the Expert Medical Panel* dated 4 August 2010, page 278.
[138] Exhibit Bundle, "G", *Transcript of New Zealand Nuclear Test Veterans Association's meeting with the Expert Medical Panel* dated 4 August 2010, page 268.
[139] Exhibit Bundle, "G", *Transcript of New Zealand Nuclear Test Veterans Association's meeting with the Expert Medical Panel* dated 4 August 2010, page 272.

> consequences of that? … And that link is very difficult to achieve.

127. Prof. Campbell went on to explain to the NZNTVA delegates the Panel's reasoning behind supporting Dr McBride's proposed study, and explained:[140]

> Prof. John Campbell: It was a wish from this expert panel to move things forward, to substantiate or to not substantiate, what YOU felt was a real problem – that is, poor health amongst nuclear exposed vets.

128. Ruth McKenzie observed wryly: [RM] But haven't they expressed their poor health by dying? Prof. Campbell responded by clarifying his proposition:[141]

> Prof. John Campbell: I mean, there are a number of conditions that are not related to the death that will not show up on the mortality data, so we felt there would be an advantage to getting both; an advantage to the nuclear vets, one way or the other, in getting morbidity and mortality data.

129. Roy Sefton, in turn, clarified the NZNTVA's expectations about the need for collaborative partnership during the NZNTVA's consultations with the Panel:[142]

> Roy Sefton: If I'd have been the manager of Veterans' Affairs, I'd certainly have turned around and said something along the lines of "What exactly are the problems? Explain them again; and, uh, more clearly - and perhaps we can get together and see if there is some way we can work our way through this? Or some way we can find – which is more the thing we want." Really, why waste your time and money on us, when you may

[140] Exhibit Bundle, "G", *Transcript of New Zealand Nuclear Test Veterans Association's meeting with the Expert Medical Panel* dated 4 August 2010, page 272.
[141] Exhibit Bundle, "G", *Transcript of New Zealand Nuclear Test Veterans Association's meeting with the Expert Medical Panel* dated 4 August 2010, page 273.
[142] Exhibit Bundle, "G", *Transcript of New Zealand Nuclear Test Veterans Association's meeting with the Expert Medical Panel* dated 4 August 2010, page 274.

> well spend that money on a generation that is still going to be alive when the research is finished? And that's the children.

130. Prof. Campbell's response sought further clarity: [JC] So, so what are you asking? Roy began to respond, but deferred to Ruth McKenzie said that:[143]

> Ruth McKenzie: That was one of the things that we brought up at the last meeting that we'd like, is for the children to have the same chromosomal tests as the veterans, because always causality comes into it. You know I always felt that if you're looking at the causality of the father's illness, have a look and see what's happening to the next generation. And the same going the other way. You know, the child's ill; what happened with the father? I mean, I got into this fight going up to the med. school library in Auckland, thinking why the heck have I got two children who are so ill, and my husband's died, and, you know, there's nothing. There doesn't seem to be anything joining them up. I've looked at the causes of each of their illnesses - there's one possible linking cause, which was radiation. Now, I just feel that so much has been going on, and I don't think you people, because of the emphasis on doing these studies and things, we are so up to here in studies because the ones that we've taken part in have been binned, because they're so (inaudible). And I want you to know why they were binned? And I felt today, because of (a) my age, and (b) my health, that I'm not getting a chance to say it again, so do you mind if I, just go over some things?
>
> The first thing I think you ought to know is that we had a talk with Wayne Mapp. … I was astounded that the Minister of Defence had so little knowledge about some of our affairs and so much about other things to do with the nuclear story. The things that bothered me were: One he didn't think the men were being used in a medical experiment. Okay. Here's declassified stuff here that show, yes, they were used as a medical experiment. He didn't know about beta radiation and its problems. I told him that it's not only our lot who were having

[143] Exhibit Bundle, "G", *Transcript of New Zealand Nuclear Test Veterans Association's meeting with the Expert Medical Panel* dated 4 August 2010, page 274-275.

problems, there's everyone who's scuffling around in depleted uranium in the Middle East. He said, "Oh, no, that's not going to be a problem, there's a huge difference between exposure and depleted uranium." Look up the health of Iraqi children, and see what's happening to the next generation.

Um, the other thing he went – "Oh yes, I was wondering about these wretched five conditions that they compensate for in children?" I had written to VANZ to ask: "Where did you get those five from?" I got a letter back saying: "The government's policy is to compensate for these five conditions: cleft lip, cleft palate, spina bifida, adrenal cancer and myeloid leukaemia" - of which we have none living, except a couple of cleft palates, probably. He said, "Well, we didn't really look at the Christmas Island children, because the Vietnam people have been so much more proactive, so we really only looked at the Vietnam (veterans') children, and then we put yours in at the end of it." Proactive? I mean, we've done the first anecdotal evidence (research). We've done these, these studies where we compare the health of veterans and their children and grandchildren with the siblings of the husband and wife and their children and grandchildren. It's all been sent up; it's confidential, it's all highly confidential, so we weren't allowed to talk about it. Full of things that they wanted to be followed up. Not one of them (has). Everything has been binned; and I want to know why they've been binned? Because I really put some dots together, since talking with Wayne Mapp.

When I got the first survey out, I sent it to the heads of each political party. I was really naïve in those days. Helen Clark wrote me and told me what a good cookie I was for doing that. Winston Peters got really cross, and called up the British High Commissioner and said: "Hey, have you seen these?" The High Commissioner said, "No, but if you proceed with this matter it will be considered an unfriendly act." We've got that here, too. Um, it went on from there, down the High Commission lines, to whatever threats of trade if you support these people. Jenny Shipley's office didn't reply; except I got a phone call one day from a bloke who said, "I'm ringing from Jenny Shipley's office. Um, she'd like to know what the

problem is, if there is a problem?". I said, "Well, you can take it from me that there is a problem". "How can you possibly know there's a problem?" "Because we've done the survey". Well he shut up.

The next thing they started off the Reeves Commission. I found that the gentleman is a member of the department for the Prime Minister and Cabinet, where they are the policy advisers – and these, if you listen to' Yes Minister', these are the people with the power. Now he, he stepped down from his position to assist, to be a member of the panel of the Reeves commission. He whistled up his friend, Andrew McEwan, head of the National Radiation Laboratory to be the adviser on the health of our children. The, Mr McEwan, Dr. McEwan, excuse me, is the fellow that says that radiation fallout goes up into the stratosphere, it doesn't fall down. And then it goes round the stratosphere and then spreads down equally all around the world. He's also the one who said that there's no damage to the Chernobyl children, and that pictures of them are fake. I hope in his recent trip to Europe he had time to go to Chernobyl. This (Reeves) report was binned. Whole waste of money and time.

Then came Debby McLeod's (2001) report. I rang her up and said, "I've got information, would you like it?" She said, "Oh no, I'm doing a literature search". Literature search? What literature? I mean, it's all been quiet. Anyway, to get back to 'Mr. Helm', of the Prime Minister's department, you can see his fingerprints all the way through. When we were talking to Wayne Mapp, he didn't have a clue of the work we'd done. Not a clue. He thought we hadn't been proactive at all. Because everything that has been done since we got involved, trying to find out what's wrong with our own people, has been binned somewhere. Now, or since that, since being a good cookie and doing this work, when something really terrible happened, like the five conditions and the response from that, I would write to the Prime Minister. Don't often do that; and I would get a letter back saying, "Thank you for writing." And that was it. And none of this has gone to Judith Collins, you see. And if Wayne Mapp doesn't know about it, I wonder if Judith Collins doesn't know

where the leadership and the power has been in our affairs. Therefore, when it comes to another study that's going to take years and our blokes are dying like flies, and our kids are dying like flies, and they're wanting help – and what help has been given in the last year to our children? I've got a girl here, I wake up every day and think, I wonder what the weather's like in Christchurch? Because her specialist said, "you must keep the house to this heat for her lungs, because of your illness…" (confidential details excluded) … you know, it's the practical things.

And while we're talking about the academics and all that stuff, we have sought truth from the word go. I mean, if there was anything else, if there was a veteran who gilded the lily with truth, we have picked it straight away. If anyone who was working with us, tried to manipulate something and it wasn't truthful, we cut ourselves off straight away. Truth is the thing, and we're not frightened of the studies. But we are frightened of a waste of time, because the policy has been, "let's do another study!" and they've all been binned, because they're full of lies. So, we are suspicious of where the suggestion came from for another study. Do you see where I'm getting at, from?

Prof. John Campbell: Yes, we can understand that, and I think your difficulties are very similar to our difficulties. We have been asked to comment on the scientific evidence, in particular, the Massey studies.

Ruth McKenzie: Well why isn't Al (Rowland) here?

Prof. John Campbell: Because he did the original research. We've got the publications from that research, and we have sent those out for peer reviewing.

Ruth McKenzie: RM: But if you've got problems - you know, I'm a practical dame, I can't answer for him, because he's the specialist. So if you've got problems, why isn't he here?

> Prof. John Campbell: We haven't got problems, what I'm saying is the problem is actually achieving and acquiring evidence. And it is very difficult, because we are now looking at an event that occurred many years ago, and the difficulty of any research is that the Expert Panel is actually getting evidence that there was damage arising from that. Either damage on the laboratory studies, the chromosomal studies or epidemiologically. We are not trying to suppress any evidence at all. What we are trying to do is to get the evidence that has been produced looked at very clearly and objectively. We need the opinion of experts in this field; both of the psychological studies and the chromosomal studies, which we have sought and obtained. And we will make a decision based on both our evaluation of the original work, and also the peer reviews of those who are experts in the field.

131. Following Ruth McKenzie's contextual explanation that provided important details in relation to the NZNTVA's struggles drawing VANZ's attention to their needs for support, and NZNTVA's proactive stance gathering evidence to illustrate the nature of their health and wellbeing concerns, the health lawyer Marie Bismark became active in the discussions. I had noticed this at the time and thought that her role was very much one of persuading the NZNTVA leaders to endorse participating in Dr David McBride's mortality and morbidity research. Reviewing the meeting transcript after 14 years I still hold that opinion.

132. What emerged in the ensuing interactions was Marie Bismark soliciting important priorities from Roy Sefton in relation to any future research with Grapple veterans, and then making explicit links between Roy's stated priorities and Dr David McBride's proposed mortality and morbidity study:[144]

> Roy Sefton: Could I just as a basic suggestion make something like this: If you were to involve yourselves in doing an epidemiological type study on the Operation Grapple veterans – not that we have any great desire for that to be done or love of it – but if you were also to do something that is really

[144] Exhibit Bundle, "G", *Transcript of New Zealand Nuclear Test Veterans Association's meeting with the Expert Medical Panel* dated 4 August 2010, page 277.

important in our mind, is a genetic study on the children, possibly. Professor Dubrova suggested MFish as a method of doing that. Um, and if you were to find genetic damage in the children, as opposed to the control group, then what you've got is two things: you've got evidence of genetic damage in the children, and you've also got another reconfirmation of genetic damage in the veterans; because without the veterans having that damage to start with you're not going to get it in the children. So you've got two great benefits. The great argument internationally for decades – I can tell you, I've been doing this since 1980 – the great argument is, as someone just said recently, if there is any damage, there's always this fear by the authorities of whatever country – and a lot of it is linked in actually to supporting the nuclear industry – but is, they're always looking for this black and white answer, which is very, very difficult to do in science, as I understand it. And if you do the children, you find genetic damage in there doing a genetic study, then you've got the chance of confirming – yet again – genetic damage in the veterans, and the possibility of ill health. But, bear in mind, I'm not saying that we're just going to simply, we would want a really good look at what you're doing and what you're proposing; and we would want to be informed all the way through. And more to the point, we don't want this research – when it's done – just handed willy nilly to Government and Veterans Affairs, where they do what they will with it, without you guys saying "Hey, you've just misquoted it, or it's wrong, or it's whatever." What I'm proposing would require some significant discussion beforehand, but that's basically what I'm thinking what I would discuss. I haven't discussed this fully with committee or anybody, it's just a, it's just something for you guys to think about.

Marie Bismark: So those were sort of two of the points – one, that any research that was done, you'd like to see some, a clear link with potential benefit for future generations?

Roy Sefton: Oh, absolutely.

> Marie Bismark: That you'd like it to be done collaboratively, and that it would need to be timely. Your concern was that if, you know, something dragged on for four years or five years.

133. At this point Prof. Campbell re-joined to wrap up the discussion:[145]

> Prof. John Campbell: I think we need to finalise this discussion around the research. We have a very limited amount of research we can do ourselves, and part of the reason for initiating this was that there was, that there is some money in the Veterans Research Fund, a very limited amount of money. And David McBride was already embarking on a study working with Vietnam vets.

134. Marie Bismark concluded the meeting's focus on the topic of conducting more research about Grapple veterans' mortality and morbidity by reiterating what the Expert Panel members perceived to be the implicit benefits for Grapple veterans and their off-spring:[146]

> Marie Bismark: And I think that the sense was that there may be benefit to the children and grandchildren of having a proper morbidity and mortality study done on the veterans. You know, whilst there is still time to do that; and that having the results of that morbidity and mortality study wouldn't actually just benefit those veterans themselves, but may produce really useful information for the children and grandchildren, was some of our thinking as well.

135. Discussions about the pursuit and application of knowledge and understanding in relation to Operation Grapple veterans and their whānau completely ignored exploring te ao Māori principles and perspectives. And yet, a considerable amount of meeting time was explicitly devoted to discussing disrupted whakapapa, with implicit references to invisible trauma, and minimal attention paid to the psycho-social, spiritual and cultural impacts associated with the veterans' deployment. The recent National Science

[145] Exhibit Bundle, "G", *Transcript of New Zealand Nuclear Test Veterans Association's meeting with the Expert Medical Panel* dated 4 August 2010, page 278.
[146] Exhibit Bundle, "G", *Transcript of New Zealand Nuclear Test Veterans Association's meeting with the Expert Medical Panel* dated 4 August 2010, page 278.

Challenges' Te Tiriti o Waitangi Partnerships document provides fresh insights that illustrate innovative ways of utilising collaborative Mātauranga Māori approaches when conducting research.[147] Had more attention been accorded to Tere Tahi's opening comment in the meeting about taking up becoming a Ratana Minister, the meeting agenda could have explored collaborating with the NZNTVA to develop a culturally appropriate holistic assessment framework for future Operation Grapple research. At the time it seemed to me that there was limited consideration of any other research paradigms; a point that is articulated in the next section. It is important that the current Veterans' Health Advisory Panel remain vigilant and mindful of these missed opportunities.

136. Despite VANZ' suspicion about the NZNTVA-initiated 'Massey Studies', researchers associated with the UK CHRC recognised the need to assess the prevalence of clinically relevant anxiety, and the broader psychological impact of the British nuclear weapons testing programme. George Collett and his colleagues' 2021 article Exposure Worry: The Psychological Impact of Perceived Ionizing Radiation Exposure in British Nuclear Test Veterans reported that a third (33.7%) of a sample of 89 British nuclear test veterans who participated in a research study met the criteria for clinically relevant anxiety on the Short-Form Geriatric Anxiety Inventory.[148] In addition, thematic analysis of data from semi-structured interviews with 19 veterans identified three themes:[149]

a. Four veterans reported worrying about their grandchildren's health, and those veterans who perceived themselves as responsible for family health conditions felt guilty;

b. Anger was felt and expressed towards authorities for their perceived negligence and deception;

[147] J-A Hazel, P-M *Tunui Te Tiriti o Waitangi Partnerships Enhances Research, Science and Innovation,* dated July 2024, accessed at <https://bioheritage.nz/wp-content/uploads/2024/07/Te-Tiriti-o-Waitangi-NSC-report.pdf>.
[148] G Collett, W Young, W martin, R Anderson, *Exposure Worry: The Psychological Impact of Perceived Ionizing Radiation Exposure in British Nuclear Test Veterans* (International Journal of Environmental Research and Public Health, Volume 18, Issue 22, 2021), at 4, accessed at <https://www.mdpi.com/1660-4601/18/22/12188>.
[149] G Collett, W Young, W martin, R Anderson, *Exposure Worry: The Psychological Impact of Perceived Ionizing Radiation Exposure in British Nuclear Test Veterans* (International Journal of Environmental Research and Public Health, Volume 18, Issue 22, 2021), accessed at <https://www.mdpi.com/1660-4601/18/22/12188>.

c. Certain life course events influenced the potency of the psychological impact.

137. Collett et al. (2021) highlighted that guilt associated with family members who experience health conditions may exacerbate veterans' stress; and the importance of authorities ensuring transparency when dealing with radiological exposure scenarios to reduce the potential for anger amongst survivors.[150] Transparency and the need to build social licence and trust should clearly become strategic operational priorities for VANZ.

138. The interactions between Roy Sefton and Ruth McKenzie pasted below anchor this thematic strand back in the meeting transcript:[151]

> Roy Sefton: Can I tell you that the research that we did that's sitting down there on the table now, the reason that veterans did it was not for their own benefit at all – in the main, it was out of concern for their families.
>
> Ruth McKenzie: Not only our families, you know, but every peacekeeper that's coming back is going to have the same problem. If it's not sorted now, it will just go on. Because - I've joined dots, and I've got them up to here, so I know what's been going on in New Zealand. But up here, where is the power there? Is it the fact that if the New Zealand people are supported in any way, and I mean any way, it's a precedent for Britain, who will have a lot? And if they cave in and have to support their people, there's America, and Japan, and you know. And Japan are only beginning to do studies into the children. I picked up the phone last year, and it was Mr. Mishawaki from Nagasaki, who wanted to know, you know. They're only beginning over there. And if we would just - Roy is leading the world, you know! We're looking at him, and think "Dear old Roy" - but he is so respected overseas, and here he doesn't get the time of day. Goes to speak to the French

[150] G Collett, W Young, W martin, R Anderson, *Exposure Worry: The Psychological Impact of Perceived Ionizing Radiation Exposure in British Nuclear Test Veterans* (International Journal of Environmental Research and Public Health, Volume 18, Issue 22, 2021), accessed at <https://www.mdpi.com/1660-4601/18/22/12188>.
[151] Exhibit Bundle, "G", *Transcript of New Zealand Nuclear Test Veterans Association's meeting with the Expert Medical Panel* dated 4 August 2010, page 277-278.

> Senate, at the International Conference; and here he is not given the time of day. He's got more in that silly head.
>
> (Laughter)
>
> Roy Sefton: Aw thanks.

Transparent ethical accountability and culpability

139. Contextual details about Operation Grapple's legacy introduced Catherine Trundle's (2011a) research, which described how British nuclear test veterans' contested illness narratives sought diagnostic practices that contained "an admission of guilt for a dangerous experimental regime that put men's bodies at risk, and which neglected to care for them afterwards".[152] Similar ethical narratives have been expressed by the Grapple veterans, and cited in this document in a variety of contexts including: Rebekah Jourdain's doctoral research; NZNTVA's 2009 Written Submission; Ruth McKenzie's narrative account in the meeting transcript of her visit to the North Shore Auckland electorate office of Hon. Dr Wayne Mapp (the Minister of Defence at the time); and Tere Tahi's Newsroom Interview. Trundle's publication also highlighted how the state's policy of secrecy and neglect has led to grave injustices that should be redressed with "public recognition, state resources, a service medal and an apology".[153]

140. Requests for evidence of transparent accountability became constant companions throughout NZNTVA's engagement with the EMP. In February 2011 Ruth McKenzie wrote two letters to Professor John Campbell to highlight her concerns about the lack of transparency of the Veterans' Health Advisory Panel members, and the inadequacies of the Panel's processes. A copy of Ruth McKenzie's 12 February 2011 letter is **attached** and marked "**P**" at page 314 of the **Exhibit Bundle.** Her first letter stated:[154]

[152] C Trundle, *Biopolitical endpoints: Diagnosing a deserving British nuclear test veteran* (Social Science & Medicine, Volume 73, Issue 6, pages 882-888, September 2011), at 887, accessed at <https://www.sciencedirect.com/science/article/abs/pii/S0277953611003224>.
[153] C Trundle, *Biopolitical endpoints: Diagnosing a deserving British nuclear test veteran* (Social Science & Medicine, Volume 73, Issue 6, pages 882-888, September 2011), at 887, accessed at <https://www.sciencedirect.com/science/article/abs/pii/S0277953611003224>.
[154] Exhibit Bundle, "P", Ruth McKenzie, *Letter to Professor John Campbell* dated 12 February 2011, at 314.

> I believe that our evidence, including that of the opinion of a "knowledgeable professor", is much stronger than that which has been expressed to date by your panel. To be honest, as only 4 of the members of that panel have ever opened their mouths at the meetings, it would be difficult for anyone to gauge their expertise on the matters for which the panel was formed. I must confess to being unimpressed with what I've seen to date. Perhaps if there had been a little more of the open collaboration promised at our first meeting, things could have been different.

141. In comparison, details included in Vincent Allen's Researcher positionality statement at the end of his April 2024 article illustrate an approach to managing transparency in a research context.[155] An extract of the article is **attached** and marked "**Q**" at page 318 of the **Exhibit Bundle**. I believe the NZNTVA delegates who engaged with the Veterans Expert Medical Panel members in 2009-10 would have appreciated having access to similar transparent self-disclosure statements for each of the Panel members in addition to reviewing the members' conflicts of interest register.

142. Ruth McKenzie's second letter, dated 23 February 2011, is referenced below, to illustrate the frustrating impact of the Expert Panel's poor processes.

143. Hence it is unsurprising that transparent ethical accountability and culpability emerged as the third and final thematic thread in the meeting transcript. The thread became evident shortly after the start of the meeting, when I raised the issue of managing conflicts of interest in relation to the 'Otago' research proposal. Dr Brian Cox responded, explaining his involvement as a cancer epidemiologist with David McBride's proposed research study. Whilst Prof. John Campbell assured the meeting Dr Brian Cox's conflict had been 'properly managed', no evidence of this was shared with the NZNTVA

[155] V Allen, D Lottridge, S Merry, K Stasiak, *Building a digital tool to support focused acceptance and commitment therapy practitioners in New Zealand primary care: A qualitative exploration of user needs to guide software feature development* (Journal of Contextual Behavioral Science, Volume 32, April 2024), accessed at <https://www.sciencedirect.com/science/article/pii/S2212144724000425?via%3Dihub>.

delegates to substantiate his assertion. In my response to Prof. Campbell I explained:[156]

> Judy Blakey: But you see, none of that information was given – again, this is the first time we are discovering that. So I think if you are looking to develop a relationship of openness and trust, that's really, really important.
>
> Prof. Campbell: Well, I think you can assume that any committee set up like this is going to be run according to appropriate protocol – and protocol that states that if someone has a conflict of interest and he or she declares that, and it is the decision of the panel whether that person leaves or not. And that we will handle any matters appropriately.
>
> Judy Blakey: Yeah but – sorry, I don't want to belabour the point. You know, I think we have been reassured; but I still think that the communication of that information to Roy and the group, and the fact that there is even a thought of continuing with another study, at the inception of that, would have been helpful to build a relationship.

144. Evidence provided throughout this Section describing NZNTVA's interactions with the EMP has revealed a number of inadequacies related to the EMP's meeting protocols; hence, the Chair's assurances of assuming the meeting was "going to be run according to appropriate protocol" appeared hollow at the time. I provided advance notification that I needed to leave the meeting slightly early, and before doing so I again mentioned issues of transparency and fairness (about the cytogenetic research review processes):[157]

> Judy Blakey: What really bothers me is the fact that Al (Rowland) is not here to answer to some of the criticisms. But also, that in fact some of the criticisms, well, just in terms of looking at the reviews themselves, I found it really interesting

[156] Exhibit Bundle, "G", *Transcript of New Zealand Nuclear Test Veterans Association's meeting with the Expert Medical Panel* dated 4 August 2010, page 271.
[157] Exhibit Bundle, "G", *Transcript of New Zealand Nuclear Test Veterans Association's meeting with the Expert Medical Panel* dated 4 August 2010, page 280-281.

> that the second (cytogenetic) review, which was very brief, that I – I don't know who this person is, and what their background is; and it would be useful to know those things.
>
> Prof. Campbell: I can give you the background to that second brief review. It was that, in the first review we had looked very much at the bench analysis of the bench research. What we were concerned with, with any comparative study like this, was how well matched were the controls? Is the difference that is there truly brought (due) to the nuclear exposure? Can it truly be attributable to that? Or are there other factors, such as smoking for example? We know the effect of that on chromosomes – can that have influenced the results? So, so we asked for an epidemiologist; someone experienced with these sort of comparative studies, to review that aspect of the study … Because that's absolutely critical to the interpretation.

145. A brief interchange followed between myself, Prof. Campbell and Dr Brian Cox, when I reiterated the NZNTVA's perception that "the notion and the collaborative agreement amongst all of you is that you want to stick with an epidemiological paradigm."[158] Both men disagreed with my observation; however, as time was short, I sidestepped unpacking that disagreement to raise further ethical concerns. It's instructive to know that the anonymous review I referred to in the next extract was that of Reviewer A – Dr John Dockerty:

> Judy Blakey: I've got to rush through this. If I ruffle a few feathers along the way, forgive me.
>
> [Reviewer A had referred to findings of tentative cytogenetic damage, that "might indicate long term damage from the tests".]
>
> Can we step back to the fact that we've got proof of the fact these people have actually been involved in a medical experiment? Can you look at New Zealand's history of

[158] Exhibit Bundle, "G", *Transcript of New Zealand Nuclear Test Veterans Association's meeting with the Expert Medical Panel* dated 4 August 2010, page 280-281.

actually, in the Cartwright Inquiry, around the lack of informed consent around involvement in medical experiments? And I think there is an ethical obligation for this panel to actually consider the consequences of that.

It's quite clear that we don't have the technical expertise at this stage, with a very, very (small and) diminishing group of survivors, to establish definitive links between them, with a robust enough sample that will actually satisfy sufficient evidence [of causative links with ionizing radiation exposure]. So there seem to be issues around that.

But, um, in terms of the information [about the controls] that was brought up at the end of this [Reviewer A's review], I have been in contact with Professor Dubrova, because you can find a much more informed write-up within Rebekah Jourdain's doctoral thesis; about the fact that we managed to recruit 132 controls, [but] actually only 52 matched the inclusion criteria, from which we could randomly select 50. And so, if you're looking for any evidence relating to that, that's important.

I was really concerned about the criticism that the code [identifying the exposed versus control participants] might have been broken before [all the data was collected], and that that might have informed the way that people went around getting results. Again, if you go and look at Rebekah's study, you will discover the fact that we had great difficulty matching [the control participants] – because we were trying to match for background radiation, recruiting sufficient numbers of veterans in the Auckland area. And that's why there seemed to be a rush at the end, of participants that came through, um, that were control subjects. But, all the way through, it was a combination of, experimental or exposed and controls. So that was actually being mixed up.

Part of the ethical implications of conducting the research was actually when a lot of abnormal results came through, the onus was on Al (Rowland) to contact the participant, because of the potential for there to be medical implications. So, I was completely separate from what was happening; physically

> separate from what was happening in Al's labs. I collected the data, and the good thing was, I didn't analyse it – Rebekah did. So I didn't have any capacity to bias what was happening there, and I think that that's important. And I still think that it would be very easy to join the dots and get a clinical picture of these men, although you seem to dismiss that as something's that's potentially not needed.
>
> That's all; that's all. And I'll have to go, because my taxi is out there.

146. Marie Bismark and Roy Sefton thanked me as I made my way out of the meeting to the taxi. After I left Dr Brian Cox kept the discussion focussed on the ethical issues raised, and addressed a question about a potential government apology to Roy Sefton:[159]

> Brian Cox: Can I ask you a question? I asked you once before - Do you think a governmental apology, for handling, for the way this has been handled over the years, would be useful? And last time you said that you didn't think so. But there're several things that cropped up. Is this is an ethical issue that has just been raised? There's the issue that you raised before in terms of the fact, you feel you have been stuffed around over the years, and games might have been played.
>
> Roy Sefton: Um, a government apology. Would they be of any use? Well, perhaps I should have expanded a little on ... (Roy provided an update on a legal case against the MoD in the UK.)
>
> Brian Cox: It was more in terms of an apology for the process thus far, rather than a decision. Because you were concerned about the process that has occurred.
>
> Roy Sefton: The mishandling of our affairs.

[159] Exhibit Bundle, "G", *Transcript of New Zealand Nuclear Test Veterans Association's meeting with the Expert Medical Panel* dated 4 August 2010, page 282.

Brian Cox: Yeah, over the years.

Roy Sefton: Disgrace! Absolute disgrace.

Marie Bismark: And we're concerned about the delays as well.

Brian Cox: And do you think an apology would assist? Do you think a government apology about the lack of —

Roy Sefton: NO! It just makes the blokes feel better, that's all (laughs).

Ruth McKenzie: One thing that really bugs me is why they have suddenly changed from having someone with compassionate medical knowledge heading Veterans Affairs? Why did they put it all under the aegis of Defence?

Prof. Campbell: We are probably outside what we've been set here, because as you know our role is simply to advise government. What I think we need to do is concentrate, because we only have a few minutes, on where we go from here. Firstly, again our apologies for not getting all the reviews that we have. We will make sure that is remedied. You will then have all the reviews that we have. Before we make any comment on them to the minister, we would like to give you the opportunity to comment, and clearly you will need more time for that.

Roy Sefton: Yes, absolutely.

Prof. Campbell: And that could either be in writing, or if you wish to meet with us, we would be pleased to meet with you either at the next meeting or after that.

147. The interchanges in the final stages of the meeting were much shorter and crisper. But before concluding the meeting Roy Sefton repeated the request: [RS] Dr Al Rowland – when will he be … ? Prof. John Campbell cut him off: [JC] We would not involve him. I mean we have his report from the study. If

you chose to go back yourselves and get comment from him that would be fine, but we would normally not expect comments. Roy responded:[160]

> Roy Sefton: John, I really must insist in this case, look I really must. … I beg you, to talk to Al Rowland.
>
> Prof. Campbell: Let's discuss it in the panel. I mean having heard your request and the panel will make a decision as to whether they provide Dr Rowland with a copy of the reviews to comment on, but that would be a decision of the panel.

148. In the final interchange Roy Sefton inquired whether Al Rowland had any copies of the reviews? Prof. John Campbell responded No; then went on to comment about the Psychological Impact Pilot Study:[161]

> Prof. Campbell: There are methodological problems with those too, and they are outlined In the reviews. And I will get those to you ... And we welcome any comments that you wish to make on them. And if you do wish to meet again, if you feel that would add to, help the panel in its recommendations, then we would.
>
> Roy Sefton: If I sought a meeting with you, with Dr Rowland with me, would you meet?
>
> Prof. Campbell: No, I think it's better if it's done through the panel.
>
> Roy Sefton: No, I didn't mean just you. (Laughs) I meant through the panel, with him.
>
> Prof. Campbell: We'll discuss. We've listened to what you have said today, which has been useful, and we will come back with a decision.

[160] Exhibit Bundle, "G", *Transcript of New Zealand Nuclear Test Veterans Association's meeting with the Expert Medical Panel* dated 4 August 2010, page 283.
[161] Exhibit Bundle, "G", *Transcript of New Zealand Nuclear Test Veterans Association's meeting with the Expert Medical Panel* dated 4 August 2010, page 284.

Dr Catherine Trundle's 2011 Preliminary Report of NZNTV's experiences dealing with the Ministerial Advisory Panel on Veterans' Health

149. Catherine Trundle's December 2011 New Zealand Test Veterans' Experiences of Accessing Healthcare and State Recognition A Preliminary Report presented data from the first stage of a three year Royal Society Te Apārangi funded project that began in February 2011.[162] The introductory paragraph of the report stated the investigation sought "to uncover test veterans' beliefs about what ideally constitutes the State's enduring responsibilities to service personnel, and to measure their satisfaction with the support they have received."[163]

Reflective connections

150. Trundle 2011b cited Te Kunenga ki Pūrehuroa Massey University doctoral student, cytogenetic scientist Wahab's peer-reviewed publication reporting elevated chromosome translocation frequencies in NZNTVs[164], a paper that was excluded from Allen + Clarke Consulting's May 2022 review. Allen + Clarke's report, reveals Hooper et al.'s stated rationale for excluding any references to the 2005 to 2007 Te Kunenga ki Pūrehuroa Massey University Operation Grapple research outputs from their review by citing the 2013 decision of the panel of 'six experts' (in Epidemiology, Toxicology, Psychology or Psychiatry, General Practice, Occupational Medicine & Public Health), who stated that "the poor choice of exposed and control subjects means that it is difficult to understand the reported differences between the groups and therefore to draw conclusions on which decisions can be made."[165] The reviewers added a further justification writing: "These reports

[162] C Trundle, *New Zealand Nuclear Test Veterans' Experiences of Accessing Healthcare and State Recognition A Preliminary Report* dated December 2011.
[163] C Trundle, *New Zealand Nuclear Test Veterans' Experiences of Accessing Healthcare and State Recognition A Preliminary Report* dated December 2011, at 1.
[164] Wahab MA, Nickless EM, Najar-M'kacher R, Parmentier C, Podd JV, Rowland RE. *Elevated chromosome translocation frequencies in New Zealand nuclear test veterans* (Cytogenetic Genome Res., Volume 121, Issue 2, pages 79-87, 2008), accessed at <https://pubmed.ncbi.nlm.nih.gov/18544930/>.
[165] Allen + Clarke Consulting, *Literature Review on the Health Impacts of Exposure to Lionising Radiation,* dated 24 February 2023, at 17, accessed at <https://www.veteransaffairs.mil.nz/assets/Research/Literature-Review-on-Health-Impacts-of-Ionising-Radiation.pdf>.

were not found in our literature search because they were not published in academic literature." Allen + Clarke's report stated that:[166]

> The health consequences of nuclear weapons testing in Kiribati, referred to as 'Operation Grapple', are overlooked in the published literature returned through the literature search, despite the term 'Operation Grapple' being specifically included. However, between 2005 and 2007 Massey University conducted three studies about New Zealand Operation Grapple veterans and ionising radiation.[22] The Sister Chromatic Exchange Study was conducted to investigate evidence of genetic damage in veterans. The Psychological Impact Study was conducted to develop a psychological profile of veterans and to investigate chronic stress and quality of life. The Cytogenetic Analysis Study was conducted to investigate genetic damage in veterans. However, in 2013 a panel of six experts reviewed the three studies and reported that "the poor choice of exposed and control subjects means that it is difficult to understand the reported differences between the groups and therefore to draw conclusions on which decisions can be made".[23] These reports were not found in our literature search because they were not published in academic literature.

151. The statement about "The Psychological Impact Study" is incorrect. Firstly, as explained earlier, the research undertaken was a Pilot Study, because of the novel and exploratory nature of the investigation. And secondly, the Pilot Project was conducted to provide supporting descriptive profiles of the participants involved in the cytogenetic research studies. It was never designed to be an independent 'stand-alone' study of the Grapple Veterans' psychological wellbeing; and certainly did not set out to "investigate chronic stress and quality of life" as stated in the above quote. Rebekah Jourdain's (2009) doctoral thesis points out how, in retrospect, it would have been helpful to include chronic stress and health anxiety measures in the data

[166] Allen + Clarke Consulting, *Literature Review on the Health Impacts of Exposure to Lionising Radiation,* dated 24 February 2023, at 17, accessed at <https://www.veteransaffairs.mil.nz/assets/Research/Literature-Review-on-Health-Impacts-of-Ionising-Radiation.pdf>.

collection processes;[167] two salient factors that emerged following the analyses of the research participants' profiles during the exploratory Pilot Project.

152. As the Research Officer responsible for implementing a research design judged to include "the poor choice of exposed and control subjects", I wish to call out this explicit attempt to discredit the validity of the entire research enterprise, by stating the potential participant pool recruitment and subsequent random selection of 50 exposed and 50 control participant cohorts was so grossly flawed that "it is difficult to understand the reported differences between the groups, and therefore to draw conclusions on which decisions can be made." It is not my intention to critique the very thorough review of the New Zealand Nuclear Test Veterans Study: A Pilot Project (Psychological Impact) provided by Dr Mark Creamer and Dr Ruth Parslow (from the Australian Centre for Posttraumatic Mental Health in Melbourne)[168], but I shall list the questions and comments I have about their report, which I would have voiced, had I been given the opportunity to do so:

a. Why were Dr Creamer and Dr Parslow approached by Professor John Campbell and asked to complete the review?

b. Did Dr Creamer or Dr Parslow have any personal or professional connections with any members of the Expert Panel?

c. Do Dr Creamer or Dr Parslow have any military connections, and/or history of treating veterans (or civilians) who have been diagnosed with symptoms of Radiation Response Syndrome?

d. What information was provided by Professor Campbell to the reviewers when they were asked to review the Psychological Impact Pilot Study report?

[167] R L Jourdain, *Psychological Fallout: the Effects of Nuclear Radiation Exposure,* dated 2009, accessed at <https://mro.massey.ac.nz/server/api/core/bitstreams/69dd4565-254a-4b80-aa3d-aaf61e8738ee/content>.
[168] Exhibit Bundle, "C", Ministerial Advisory Group on Veterans' Health, *letter to Hon. Judith Collins regarding review of the research undertaken by Massey University on behalf of the New Zealand Nuclear Test Veterans Association* dated 23 December 2010, page 229-238.

153. It is clear from comments made in the report that the reviewers were unaware that VANZ had no nominal roll of Operation Grapple veterans, and therefore a random selection of nuclear test veteran participants from such a roll was impossible. That is the reason why veterans on NZNTVA's list were invited to participate. Similarly, no nominal roll existed from which to randomly select and invite potential control participants, which is why veteran networks were used to recruit them.

154. The sample size of 50 exposed veterans and 50 control participants was established when the study was designed. The reviewers' statement at the top of page 4 -"It was this low number of controls that led to the researchers reducing the number of exposed participants to 50."[169] - Is totally incorrect. I cannot imagine on what basis that statement was made by the reviewers.

155. In June 2022 researchers at the UK's Centre for Health Effects of Radiological and Chemical Agents reported they had also experienced challenges when recruiting sufficient numbers of control group participants, for a replication cytogenetic study of British Nuclear Test veteran participants.[170]

156. The reviewers' comment about not understanding the logic of excluding potential participants who had received radiation treatment, or chemotherapy, reveals their lack of understanding of the context of the NZNTVA's multi-disciplinary research project, where the principle aim was to conduct cytogenetic tests on participants' blood samples.[171] Radiation treatment or chemotherapy are known to impact the genetic characteristics of blood cells that Al Rowland and his research team were investigating.

157. The concluding summary that "there is little evidence to suggest that they represent poor health states when compared to the broader population of

[169] Exhibit Bundle, "C", Ministerial Advisory Group on Veterans' Health, *letter to Hon. Judith Collins regarding review of the research undertaken by Massey University on behalf of the New Zealand Nuclear Test Veterans Association* dated 23 December 2010, page 232.
[170] C Rake et al, *British Nuclear Test Veteran Family Trios for the Study of Genetic Risk* (Journal of Radiological Protection, Volume 42, Issue 2, June 2022), accessed at <https://www.researchgate.net/publication/361449589_British_nuclear_test_veteran_family_trios_for_the_study_of_genetic_risk>.
[171] Exhibit Bundle, "C", Ministerial Advisory Group on Veterans' Health, *letter to Hon. Judith Collins regarding review of the research undertaken by Massey University on behalf of the New Zealand Nuclear Test Veterans Association* dated 23 December 2010, page 235.

age matched males in New Zealand" may appear to be the case in the composite SF-36 Mental Health Subscale comparison the reviewers presented in their report.[172] However, the graphical data of the Mental Health Subscales' profiles presented in the NZNTVA's 2009 EMP Written submission offers an alternative perspective.[173] These profiles reveal a more nuanced impact of the differences between the Operation Grapple sample in comparison with age matched males in New Zealand.[174]

158. I'm mindful that the 'six experts' on the Panel never once raised any of their concerns directly with me, when I attended the two Wellington meetings with the EMP in 2009 and 2010; nor did the Panel send me any of the reviews of the Psychological Impact Pilot Project and seek feedback about the reviewers' critical comments. Had they done so, I would have willingly helped clarify any queries they had, and discussed the rationale behind the logistical implementation features related to the data collection, including the participant selection; and even suggested some potential approaches for ongoing research initiatives that might leverage the insights gleaned from the Pilot Project's findings. As previously noted, the Panel also chose not to confer in person with Dr Al Rowland about any of their misgivings or the reviewers' critical feedback. The Panel's actions and communication with the NZNTVA made it abundantly clear that they were disinterested in holding any open dialogue with any members of Massey's multidisciplinary research team. The fact that Roy Sefton invited me to join the NZNTVA delegation when attending two meetings with the Panel may have been a surprise to those in authority. The concerns I had at the time about the transparency of the Panel's composition and engagement processes have certainly amplified since undertaking to compile this evidence brief.

[172] Exhibit Bundle, "C", Ministerial Advisory Group on Veterans' Health, *letter to Hon. Judith Collins regarding review of the research undertaken by Massey University on behalf of the New Zealand Nuclear Test Veterans Association* dated 23 December 2010, page 238.
[173] Exhibit Bundle, "D", New Zealand Nuclear Test Veterans Association, *Written Submission to the Expert Medical Panel (EMP) in Wellington* dated 20 August 2009, page 254.
[174] Exhibit Bundle, "D", New Zealand Nuclear Test Veterans Association, *Written Submission to the Expert Medical Panel (EMP) in Wellington* dated 20 August 2009, page 254.

The Advisory Panel's Recommendations Related to the NZNTV Research Project

159. On 23 December 2010 Professor Campbell wrote to inform the Minister of Veterans Affairs, Hon. Judith Collins, about the results of the Expert Medical Panel's deliberations. His letter stated the Advisory Group recommended:[175]

> No change to the current list of conditions presumptively accepted as being service related to New Zealand nuclear test veterans.
>
> The Government acknowledges that nuclear test veterans were put at risk through exposure to nuclear radiation, and that we have been slow to address the concerns of the veterans. In addition, Prof. Campbell mentioned that as some suggestions had been made as to how to address the slow response he would like to discuss them with the Minister.
>
> Given that the scientific literature was technically difficult and often methodologically flawed, with poor studies leading to fear of health consequences for veterans and their families, when there was no real medical basis for such concerns, the Panel commissioned a critical review of the literature be written by an author experienced in communication, under the guidance of the Advisory Group. The stated purpose of the document would be "to provide clear and unbiased assessment of the consequences of nuclear test exposure" for a lay readership; "and to help allay the unnecessary health concerns of many nuclear test veterans and their families.

160. On 6 May 2013 VANZ published a Summary Report on their website.[176]

[175] Exhibit Bundle, "C", Ministerial Advisory Group on Veterans' Health, *letter to Hon. Judith Collins regarding review of the research undertaken by Massey University on behalf of the New Zealand Nuclear Test Veterans Association* dated 23 December 2010, page 209.
[176] Veterans' Affairs New Zealand, *New Zealand nuclear test veterans: a summary of expert reviews of three studies* dated 6 May 2013, accessed at <https://www.veteransaffairs.mil.nz/assets/Research/00e7983c57/NZ-nuclear-tests-veterans-a-summary-of-expert-reviews-of-three-studies.pdf>.

161. Dr Al Rowland's November 2019 four-page Response to the document entitled "New Zealand Nuclear Test Veterans.[177] It started by citing evidence from the Material and Methods section of associated research reports, to disassemble the myth that the NZNTVs who participated in the research were self-selected.[178]

162. Al Rowland attached Professor David Brenner's report as further evidence to support his response to the critical comments about the research he led.[179]

163. The May 2020 New Zealand Medical Journal article published by Dr Dockerty, Dr David McBride and ten final year medical interns reported the results of research that aimed: "To describe health conditions in New Zealand nuclear veterans and their offspring, and examine the utility of tests to assess their heritability."[180] Recruitment to the study was voluntary, primarily through the Mururoa Veteran Group (MVG), who travelled to major centres throughout Aotearoa in 2018, and encouraged potential participants to enrol with the MVG.[181] Once enrolled, respondents were sent the link to an online survey that was open to all New Zealand NTVs and their off-spring. The researchers reported securing a total of 148 responses; 83 from veterans and 65 from their whānau members. It is noticeable that only 7 (5%) of the respondents were linked to Operation Grapple, although no details were provided about the numbers of veterans who served in both deployments, and therefore how representative those 7 respondents with Grapple links might be of the larger Grapple cohort.[182] The authors acknowledged the tight six week time constraints for the project, and that not catering for postal survey options probably impacted on the respondent

[177] Exhibit Bundle, "N", R E (Al) Rowland, *Response to the Document Entitled "New Zealand Nuclear Test Veterans: A Summary of Expert Reviews"* dated 25 November 2019.
[178] Exhibit Bundle, "N", R E (Al) Rowland, *Response to the Document Entitled "New Zealand Nuclear Test Veterans: A Summary of Expert Reviews"* dated 25 November 2019, page 303-304.
[179] Exhibit Bundle, "N", R E (Al) Rowland, *Response to the Document Entitled "New Zealand Nuclear Test Veterans: A Summary of Expert Reviews"* dated 25 November 2019, page 306-311.
[180] J Dockerty, et al., *The New Zealand nuclear veteran and families study, exploring the options to assess heritable health outcomes* (New Zealand Medical Journal, Volume 22, No. 133, pages 70-78, 2022), accessed at <https://nzmj.org.nz/media/pages/journal/vol-133-no-1515/the-new-zealand-nuclear-veteran-and-families-study-exploring-the-options-to-assess-heritable-health-outcomes/b7e871f2d4-1696471715/the-new-zealand-nuclear-veteran-and-families-study-exploring-the-options-to-assess-heritable-health-outcomes-open-access.pdf>.
[181] Ibid., at 72.
[182] Ibid.

characteristics, so that their research results "may not therefore represent the underlying distribution of distress and health status in this population."[183]

164. The Discussion section of the publication revisited many of the conditions and concerns traversed in this Operation Grapple evidence brief, namely:[184]

a. the prevalence of cancers, including skin and haematological disorders; and

b. the presence of fertility issues, with veterans' children saying they had chosen not to have children because of their fathers' exposures to ionizing radiation.

165. Despite official attempts to discredit the validity of Dr. Al Rowland's multidisciplinary studies, the article also cited findings from the Psychological Impact Pilot Project report, noting Grapple veterans':[185]

a. Self-reported prevalence of cancers (n=24 v 2) and skin conditions (n=40 v 12) reported in comparison with the control participants

b. Geriatric Depression Scale scores were higher than the controls, with more variability

c. Uniformly lower scores in the SF-36 Health Survey for general, physical and mental health items.

166. Dockerty et al. (2020) explained that the report's authors (Dr John Podd, Rebekah Jourdain and myself) had ascribed the Grapple veterans' poorer health to long-term stress; and mentioned that although that was partly due to veterans worrying about ionizing radiation exposure, a "recent review has emphasised that distress is common in veteran populations".[186] The authors also reported the veterans' distrust of official reckonings about radiation

[183] Ibid., at 75.
[184] Ibid., at 75-76.
[185] Ibid., at 75.
[186] Ibid.

exposure levels, and that the veterans were concerned about internal (from ingestion) rather than any external radiation dose.[187]

167. Regarding future directions Dockerty et al, concluded:[188]

> […] this is a problem with no easy solution: paternal transmission of effects of environmental exposure to radiation, just as with other public and environmental health problems, demands both epidemiological and technical approaches.

168. Referring to the different future cytogenetic research options available, Dockerty et al. suggested a future research possibility of replicating the research being undertaken by Brunel University London researchers[189], whose January 2024 article I referred to when describing the challenges I faced recruiting control participants for the NZNTV research.[190] Dockerty et al. concluded that collating and updating a veterans' register that recorded disease outcomes for veterans and their offspring would be a priority for conducting such research.[191]

CONCLUDING COMMENTS

169. This evidence brief highlights critical gaps in veteran research, particularly concerning the long-term health effects of military service, the recognition of moral injury, and the lack of culturally responsive approaches for Māori veterans. Those gaps emphasize the need for more inclusive and holistic research methodologies that honour Te Tiriti o Waitangi, supported by improved policy frameworks that address the intergenerational impacts of service-related exposures, and provide greater transparency of government

[187] Ibid., at 76.
[188] Ibid.
[189] Ibid.
[190] K J Lawrence et al, *M-FISH Evaluation of Chromosome Aberrations to Examine for Historical Exposure to Ionising Radiation Due to Participation at British Nuclear Test Sites* (Journal of Radiological Protection, Volume 44, Issue 2, January 2024), accessed at <https://www.researchgate.net/publication/377263936_M-FISH_evaluation_of_chromosome_aberrations_to_examine_for_historical_exposure_to_ionising_radiation_due_to_participation_at_British_nuclear_test_sites>.
[191] J Dockerty, et al., *The New Zealand nuclear veteran and families study, exploring the options to assess heritable health outcomes* (New Zealand Medical Journal, Volume 22, No. 133, pages 70-78, 2022), at 77, accessed at <https://nzmj.org.nz/media/pages/journal/vol-133-no-1515/the-new-zealand-nuclear-veteran-and-families-study-exploring-the-options-to-assess-heritable-health-outcomes/b7e871f2d4-1696471715/the-new-zealand-nuclear-veteran-and-families-study-exploring-the-options-to-assess-heritable-health-outcomes-open-access.pdf>.

responses to contested health conditions. Addressing these issues requires a commitment to reorient veteran and whānau research strategies, so they create pathways that enable timely and equitable healthcare access. Sustained advocacy will be essential to ensure that all veterans receive the recognition and support they deserve.

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