

# The Intergenerational Health Effects of Service in the Military

## Appendix 1

“And the pine trees seemed greener after  
that”

Reflections by sons and daughters of  
Vietnam veterans.

Content analysis  
June 2007



CENTRE FOR MILITARY & VETERANS' HEALTH

## **1.0 Background**

The Vietnam veteran community has over the years raised concerns about the mental health, emotional well-being and physical health of their sons and daughters. One major concern is the perception that their children are more unwell when compared to children in the general community. In *Morbidity of Vietnam Veterans: A Study in the Health of Australia's Vietnam Veteran Community* (DVA 1998), Vietnam veterans reported a higher prevalence of health problems among their partners and children. In particular, it was reported that children of Vietnam veterans had a substantially higher rate of suicide than that experienced by the general Australian community.

In response to the concerns of Vietnam veterans and their families, the Australian Government announced that it would examine the feasibility of conducting a study into the health of children of Vietnam veterans. An independent advisory committee, the Scientific Advisory Committee (SAC), was appointed by the Repatriation Commission for this purpose.

The Feasibility Study identified a number of significant issues that could impact on the success of any future research into intergenerational health effects of Vietnam service. These issues included difficulties in locating and recruiting the children of Vietnam veterans across the three services, while avoiding recruitment bias, and taking into account other factors which may impact on the health of the son or daughter, such as the role of the mother or other family members and other environmental influences. In response, the Minister for Veterans' Affairs, Bruce Billson announced that "staged approach" research would commence this year with a view to supporting early action.

The Centre for Military and Veterans' Health has been appointed to develop a "sound and workable" research protocol in response to the Feasibility Study into a Health Study of the Sons and Daughters of Vietnam Veterans (DVA 2006). This work will build on the work of the Deployment Health Surveillance Program, which is conducting cross-sectional studies of serving and ex-serving personnel who have deployed on specific operations and which aims to eventually develop a longitudinal health surveillance system for personnel who have served in the military.

It is hoped that the protocols developed will result in research that will have the potential to improve and better target health support and services available for the children of Vietnam veterans.

## **2. Introduction**

"And the pine trees seemed greener after that" is a book for sons and daughters of Vietnam veterans. It contains reflections by them, in words and images of their experiences of growing up in a family with a Vietnam veteran. The book also contains information on a range of mental health issues of interest to sons and daughters of Vietnam veterans and a list of services that may be of assistance. The content of this book was used as a starting point for understanding the 'lived experiences' of sons

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and daughters of Vietnam veterans, which would in turn assist with the development of a research plan for investigating the health of the children of Vietnam veterans.

### **3. Aims**

The aims of this content analysis were:

- to gain an understanding of the ‘lived experience’ of sons and daughters of Vietnam veterans
- to explore the perceptions, experiences and understandings of the ‘lived experience’ of sons and daughters of Vietnam veterans

### **4. Methodology**

In order to explore the perceptions, experiences and understandings of the sons and daughters of Vietnam Veterans a content analysis was undertaken on the book ‘and the pine trees seemed greener after that’.

#### ***Participants***

There is no information on the sons and daughters who contributed to this book.

#### ***Data analysis***

Thematic analysis (mining the data for significant themes and issues rather than to identify frequency) of the text was undertaken.

### **5. Results**

This preliminary analysis identified a number of themes:

- Family dynamics
- Relationship with father
- The Vietnam war
- The emotional experience
- Mental health issues
- Substance abuse
- Positive outcomes

A preliminary overview of these themes (with a small sample of quotes provided to help evidence the interpretation) are now presented below.

#### **The Vietnam war**

It was apparent that the contributors had a general understanding of the impact of the war on their fathers. Contributors appreciated that ‘*physical and psychological damage that was done to him in the war*’ along with their fathers’ inability to adjust on the return home ‘*returned spiritually wounded, unable to adjust*’. There was an understanding of the long term impact of the war on the fathers “*I know he’ll never fully leave his dark and noisy jungle*”.

The actual war in Vietnam is described by one child as the “*dark shadow at the heart of my family*” and the children are conscious of the change in their fathers as a result of the war. There is a feeling of loss and perhaps injustice, as the children reflect on the war taking away the father they felt they were supposed to have:

*“ it’s like Vietnam transformed this bubbly, exuberant teenager eager to grab life by the scruff of the neck and shake hell out of it, into a scared, confused, alcohol ridden man”*

*“I often wonder what he would be like had that tragic event thirty years ago not robbed him of so much. I wonder if he would be like normal dads, like my friend’s dads”*

### **Family dynamics**

Growing up with a Vietnam veteran was *“unpredictable, changeable, chaotic”*. Participants described how *“dad was ever on the edge”*, *“was a cranky bastard”* and was *“withdrawn, tired, anti-social and cranky”*. The threat of violence lingered over the children

*“my father never hit me but I do remember there was always the threat that something might happen if he did not settle down. One result was the hole in the door. What did the door do? So I learnt it was easier to bottle things up and not let anyone know I was angry or sad”*

The children of Vietnam veterans recognised that they were different from their friends and peers and reflect on being treated differently by their peers.

*“we realised that something was different in our family but we never dared mention anything”*

*“I couldn’t understand why no one wanted to talk to me or why they kept their distance like I had something contagious, or why they teased me.... I can even remember one women asking my mum if Agent Orange was anything like AIDS!”*

It was common for children to grow up in the absence of their father, while those who grew up with a father had to deal with multiple personalities, never knowing which personality they would encounter on a daily basis.

*“this is as much as know about my father. I was two and a half years old when he left his family on a hot February day in 1974”*

*“it was like having a Jekyll and Hyde personality. The father who knew he was in trouble and hurting his family and the soldier. How I hated the soldier, cold, arrogant, cruel, heartless”*

*“it was like... he was two people or followed by a shadow”*

The importance of the mother in the family dynamic was recognised as key

*“she was our rock when things turned from bad to worse. My mum was always trying to hold the family together through it all”*

*“the real hero of my family though is my mum. She is the glue that holds dad together and without her unconditional love I don’t think I would have a family or a father”*

It was recognised by the sons and daughters that they were not the only ones suffering and struggling to live with their father. The impact on the mother did not go unnoticed.

*“it must have been so hard for her to fall in love with one man and then spend the rest of her life with almost a complete other”*

While generally the mothers were regarded in a positive manner, some felt let down by the mother’s decision to stay with the father.

*“I realised she could have better protected us from dad, could have left him sooner”*

### **Relationship with father**

Sons and daughters who grew up with their father in the family home still report an absence of their father, despite the physical presence. Communication between fathers and children was strained and forced

*“I don’t remember you being in my childhood very much”*

*“his attempts at conversation seem merely a distraction from the inner struggles. His expressionless stare into the distance reflects years of pain”*

*“I never kicked the footy with him as a kid, or played cricket with him in the backyard... sometimes a conversation is asking too much”*

The sons and daughters reflect on *“pride never spoken”* and love never expressed from their fathers. This resulted in children striving for their fathers’ attention and desperately trying to prove themselves to gain their fathers’ love and respect.

*“I wanted so desperately for him to be proud of me and tell me that he loved me. Those words should be so simple to say, but he couldn’t and that’s what hurt the most”*

*“you’ll see me striving for you attention, approval”*

*“I spent years stressing out, pushing myself, arguing, fighting with internal conflict trying to prove who I am and that I am worthy of his love and respect”*

### **Mental health**

There was a strong focus on anger, violence and depression reflected in the text. The children attributed their mental health problems to their childhood.

*“I was sick; I was different, mentally ill, scarred, bruised, ruined in some way by my childhood”*

*“why am I so angry? Violence is not in my nature and I have found I suppress my anger. Why am I so depressed? Why do I give up so easily? Why am I not happy with my life?”*

*“I used to wonder if I would ever figure out what was wrong with me. These were feelings of hopelessness, despair, anger, terrible sadness and being completely numb”*

*“these ups and downs were two extremes for me. I was either extremely happy or sad, with no in-between, or I was angry”*

### **The emotional experience**

A plethora of emotions are discussed by the sons and daughters of the veterans. One person described their emotional state as a *“whirlwind... emotions all a-flurry”*. The feeling of being alone is commonly expressed by the children. The children speak of suffering in silence and having no one to turn to.

*“I always felt so alone I could never talk to my friends about what life was like living with my dad”*

*“I had had enough of it all, I felt confused, hurt and all by myself. I was Alone”*

A widespread feeling expressed throughout the text was that of hate. Children hated their fathers and how much they had changed following the war.

*‘I hated my father. I hated the fact that friends of this would talk about how different he was before Vietnam, and how distant he was now.’*

*‘I hated my dad and blamed him for everything’*

*‘it’s hard to feel anything but hate for him’*

These feelings of hate and resentment extended to the behaviour of the sons and daughters also.

*‘what I hate most is I find myself acting like my father’*

A feeling expressed throughout the reflections was the feeling of fear and dread.

*‘my dad gets angry, he still lashes out on the odd occasion and it scares the hell out of me’*

*‘I remember being scared stiff and crying... only to be awakened by dad’s screaming and mum trying to calm him down. That particular episode lasted about two to three weeks’*

### **Substance abuse**

The issue of substance abuse was widespread throughout the text. Alcohol abuse and alcoholism were common in the fathers.

*'when his truck would pull up in our driveway my stomach would drop. Would he be drunk tonight? Will he be in a bad mood?'*

*'he would be a happy drunk at first... then inevitably he would become very dark as his stories led him back to the war'*

It was recognised that drinking was an attempt by the father to numb the pain and block out the memories of the war.

*'we tried to avoid dad when he was drunk, we tried to help, we tried to pretend everything was ok, but it wasn't. All I wanted to do was to take away his pain, make everything better. So many times I reached out to him, only to be viciously pushed away.'*

Substance abuse was not restricted solely to the fathers with both the mothers and children themselves turning to in an attempt to calm their nerves or feel good.

*'a lot of my childhood was normal, regular, every day, despite dad's alcoholism and annual ANZAC day freakout, and mum's 'funny turns' (panic attacks) and 'nerve pills' (tranquilisers). I suffered a minor nervous breakdown when I was eleven'*

*'I got very good at pretending to be happy, while chasing oblivion. When I was drunk, or stoned or tripping off my face, I felt good, I had some peace'*

### **Positive outcomes**

Despite touching on many detrimental or negative outcomes of having a Vietnam veteran for a father the text also contained several positive outcomes. A sense of strength and empowerment, perhaps as a result of their childhood and upbringing, was expressed by the sons and daughters.

*'I decided that I was not going to be beaten'*

*'under the worst stress I have ever experienced..... I held it together well enough'*

*'it was one small success, but it was my small success'*

Feelings of resilience, attributed to having a Vietnam veteran for a father were also frequently expressed by the children.

*'but the fact that I am the daughter of a Vietnam vet, I think only makes me stronger, makes me honest. It has helped me overcome many things, from small life changes to a really big test'*

*'I have had my hurdles to jump along the way and I'm sure I'll face more challenges, but I now know I can overcome them'*

Throughout the text there was a strong sense of pride in their fathers.

*'my dad is a Vietnam veteran and I am proud of him'*

*'how very proud I am of you – not just for having the courage during the war, but more importantly for braving each day you wake up after it'*

*'how proud I am of my dad, how brave I think he was, I love him so much. This has given me new strength and pride'*

## **6. Conclusions**

- children of Vietnam veterans report both positive and negative experiences
- positive outcomes from growing up with a Vietnam veteran were that children felt pride for their fathers, as well as a sense of strength and empowerment
- negative emotions such as fear, hate and dread of their fathers were also felt
- children reported difficulties in having a different upbringing to their peers, and a changed family dynamic
- relationships between children and their fathers were often strained
- children reported having mental struggles, and often turned to alcohol and drugs
- overall, children of Vietnam veterans realised the impact that war had on their fathers, but felt a sense of loss of missing out on a normal family upbringing

# The Intergenerational Health Effects of Service in the Military

## Appendix 2

### Intergenerational Health Research Methods Seminar Report

Revised  
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**CENTRE FOR MILITARY & VETERANS' HEALTH**



## **Introduction**

The Centre for Military and Veterans' Health (CMVH) is an academic centre jointly funded by the Department of Defence (Health Services) and the Department of Veterans' Affairs (DVA). It is located within the Faculty of Health Sciences at the University of Queensland.

The Centre for Military and Veterans' Health has been appointed to develop a "sound and workable" research protocol in response to the Feasibility Study into a Health Study of the Sons and Daughters of Vietnam Veterans (DVA 2006). This work will build on the work of the Deployment Health Surveillance Program, which is conducting cross-sectional studies of serving and ex-serving personnel who have deployed on specific operations and which aims to eventually develop a longitudinal health surveillance system for personnel who have served in the military.

It is hoped that the protocols developed will result in research that will have the potential to improve and better target health support and services available for the children of Vietnam veterans.

The broad aims of the seminar were:

- To share information across sectors about current methodologies in intergenerational research; and
- To consider the potential application of methodologies from other sectors to the military and veterans' health sector.

## **Seminar Planning and Methodology**

CMVH advertised the seminar through the Public Health Association of Australia member email list, seeking expressions of interest for participants. Members of the expert team for the 'intergenerational health effects of military service' project along with the initial findings from the literature review identified key fields of research.

CMVH invited a number of key representatives to participate in the seminar (See Annex 1).

The participants were encouraged to:

- Present the methods they have used to examine intergenerational transmission within their own field of research;
- To highlight the key methodological challenges associated with exploring intergenerational transmission;
- To highlight key opportunities for exploring intergenerational transmission; and
- To discuss the application of their methods to the military and veterans' health sector.

The specific tasks for the seminar were to:

- identify and explore the current methodologies for intergenerational research with specific focus on
- hypothesis generation
- sampling strategies
- exposure measures
- outcomes measures
- data collection

- data linkage and analysis
- identify and explore the current issues in intergenerational research methodology
- explore the implications for this for health research on serving personnel and veterans, children and families

The task of the seminar was to create discussion around intergenerational research methods that it could provide input to the expert team to the expert team who have been tasked to develop a research protocol that explores the intergenerational health effects of military service.

**Work, family and wellbeing: research and methods for policy integration**  
**Dr Lyndall Strazdins, Research Fellow, National Centre for Epidemiology and Population Health, Australian National University**

Dr Strazdins work has aimed to refocus the work and family debate to address wellbeing and intergenerational effects. A key aim of Dr Strazdins work is to make the theories and findings policy relevant and accessible. A model for exploring work, family and wellbeing was proposed by Dr Strazdins.

A brief overview of the findings from Canadian and Australian data was presented.

The key findings are that:

- Work and family life are not separate;
- Work conditions, including work times, can impact family environments and so affect child wellbeing; and
- Parent mental health and family relationships are key mechanisms for intergenerational transmission.

In a policy context intergenerational research is important to provide the best start to life: what happens to parents and families matters to children over their life course- this can impact on later achievements and health.

It was noted that when developing policy from intergenerational research one challenge was how to cost in health and well-being, especially the future/potential costs of children's wellbeing.

**Post-deployment health of Australian veterans**  
**Professor Malcolm Sim, Centre for Occupational and Environmental Health, Monash University**

Post deployment syndromes have been recognised since at least the time of the American Civil war. Pizarro et al (2006) reported a strong relation to war trauma and a wide range of later physical and psychological outcomes.

An overview of the background to the Persian Gulf war was presented along with the rationale for conducting an Australian study of Gulf war veterans. The rationale included:

- many veteran health complaints
- concerns about unique exposures during the Gulf war
- USA and UK established clinical education registry programs
- Overseas studies – excess physical and psychological symptoms – self report

The methods used to conduct the Australian study were:

- cross sectional study of 1,456 Gulf war veterans and 1,588 military (era) comparison group
- postal questionnaire, face to face medical examination, psychological interview (CIDI), fitness tests, blood tests
- 10 HAS clinics around Australia

The main findings from the Australian study were:

- large increases in PTSD, depression and other psychological disorders, related to deployment stressors, younger age and lower rank
- higher number, and more severe, health symptoms, but no unique pattern or factor analyses
- cancer and mortality not increased, but small numbers
- higher rates of many self-reported health indices, but little difference on objective health measures

The findings from this study led to a number of mental health developments in the ADF including the development of a Directorate of Mental Health in 2002 which has been very active in developing psychological practice guidelines; the establishment of a Mental Health Research and Surveillance advisory group in 2003 whose purpose is to review relevant psychological research findings and assess their impact on practice; the establishment of a suicide support line and other post-deployment psychological services and; the establishment of the Centre for Military and Veterans' Health and the Deployment Health Surveillance Program.

Several reports have been published in the United States and the United Kingdom on 'Gulf War' illness and the health of Gulf War veterans. The Binns' Committee Report which was published in September 2004 found that:

- a substantial proportion of Gulf War veterans are ill with multi-symptom conditions not explained by wartime stress or psychiatric illness
- a growing body of research indicates that an important component of Gulf War veterans' illness is neurological in character
- evidence supports a probable link between exposure to neurotoxins and the development of Gulf War veterans' illnesses

The data presented from the Korean War veterans explored whether increased symptom reporting and psychological outcomes following deployment cause later physical and mental ill health. Korean veterans had 21% higher mortality, 37% committed suicide, 31% died from cancer, 13% died from circulatory system disease, 32% from respiratory system disease and 35% from digestive diseases.

50 years after the end of hostilities Korean war veterans still reported anxiety, depression and PTSD with the prevalence increasing with increasing combat exposure. Korean veterans also recorded poorer mean scores on several quality of life measures. Such findings highlight some of the further outcomes of the Binns' committee report:

- The health of Gulf war veterans must be carefully monitored to determine if Gulf War service is associated with excess rates of specific diseases, disease-specific death or overall mortality

- Further progress in understanding and treating Gulf War veterans illnesses requires federal research programs that are properly focused, well-managed and adequately funded
- Areas which are relatively new in terms of military and veterans health are female veterans and peacekeeping operations. Recent and future peacekeeping operations are included in the Deployment Health Surveillance Programme. It was suggested that a study of veterans of earlier peacekeeping operations should be conducted.

The Australian Gulf war data shows that the onset of psychological illness during military service leads to a 20% increased likelihood of separation from the ADF. Post deployment mental health screening is undertaken routinely for veterans returning from deployments. If problems can be picked up early then treatment can be more effective.

In summary

- Post deployment syndromes and psychological disorders are common and we need to better understand their causes, implications of co-morbidity and longer term health impact.
- Important cause of attrition from the military and makes it difficult to maintain combat readiness.
- Future research needs to be conducted prospectively and more reliance on objective health and exposure data.
- Focus on effects in vulnerable groups; women and younger veterans.
- We need a better understanding of positive effects of deployment; doing a worthwhile job, being a member of a team etc.
- Where primary prevention not effective, then need to develop better ways to prepare defence force personnel and to detect problems during and following deployment.

### **Epigenetic inheritance**

**Dr Ruth Morley, University of Melbourne, Department of Paediatrics and  
Murdoch Children's Research Institute**

The presentation began with an overview of epigenetics, defined as “study of heritable changes in activation or inactivation of genes, with no change in DNA sequence”

Genes can be activated or inactivated by DNA methylation or histone modification. DNA methylation occurs at CpG sites (cytosine-phosphate-guanine). The cytosine in a CpG site can be methylated. CpG islands are areas that contain high densities of CpG sites and are found at promoter regions of around of half of all mammalian genes. Therefore there is the potential for many genes to be ‘activated’ or ‘inactivated’.

An activated gene results in a protein being produced; an inactivated gene results in no protein being produced. DNA methylation usually results in a gene being turned off. Histone modification results in condensed chromatin and genes being ‘switched off’ i.e. not actively transcribing.

DNA methylation occurs in developing germ cells with the majority occurring in

trophoblast lineages which lead to placenta and yolk-sac and in somatic cell lineages which persist into adulthood; therefore there is huge potential for genes to be turned off and for the effects to persist into adulthood.

The effects of exposures to methylating agents (e.g. SAM and genistein) in early gestation has been studied in mice. There is a direct effect on offspring during a critical period of development.

Methylation of the agouti gene (agouti gene switches hair melanin from black to yellow) results in mottled, heavily mottled and pseudo-agouti mice (black mice). That is, the genes that is responsible for the yellow colour has been inactivated.

Anything that affects germline epigenetic reprogramming can result in a transgenerational phenotype.

A study that looked at maternal diet and offspring obesity reported that male offspring of high fat diet mothers, whose 2 cell embryos were transferred to female rats on a low fat diets had greater weight gain and abdominal fat by 17 weeks of age. This outcome could be mediated by epigenetic change.

Epigenetic transgenerational actions of endocrine disrupters are primarily through the male germ line and have been confirmed out to four generations.

It is not yet known whether the epigenetic profile of ova or sperm could be affected by adult exposures.

Conclusions:

- Epigenetic modifications are clearly important for normal human development
- Exposure in early gestation can directly affect epigenetic marks
- Limited animal evidence of transgenerational epigenetic inheritance and suggestive evidence from humans
- Not known whether exposures in adult life will affect epigenetic profile of ripening ova or sperm

### **The intergenerational transmission of dependence on income support: patterns, causation and implications for Australian Social Policy**

**Professor Deborah Cobb-Clark, Australian National University**

Deborah presented a project titled 'Youth in focus' which will study the consequences of growing up in an income-support-dependent family and will assess the overall correlation between parents' and childrens' receipt of income support and investigate its causes.

The project is a longitudinal study with two key data sources:

- a transgenerational dataset based on administrative records of a cohort of 18 year olds and their parents. This source will be continuously updated during the life of the project;
- a longitudinal survey of a random sample of 18 year olds who appear in the administrative data. Selected individuals are being asked about a range of topics including: employment, education, health, income, family relationships,

housing arrangements, attitudes and values, and the experiences of children (and their parents) as they grew up

Data from Pech & McCoull (2000) show that social security recipient families (both long term and short term) have the highest proportion of the family receiving income support.

The Youth in Focus project is innovative because it combines administrative data with survey data which allows the exploration of level, type and timing as well as the incidence of benefit receipt. This data will allow alternative pathways through which disadvantage may be passed from one generation to the next to be highlighted, allowing consideration of a wider range of effects and policy options.

Administrative data to be collected are personal details, housing details, youth homeless or independent history, full time student history, family income support history, relationship history, income history and individual income support history.

Data to be collected from the parents will include household and personal information, family background, education, own and partner's employment, income and savings, partnering relationships, general values, health, background information about child's birth father and information about the youth's education and health while young.

Data collected from the youths includes personal details and family background, education, labour force status, current employment status, job search, partnering and family formation, housing arrangement, annual earnings and income, health, personality traits and satisfaction and attitudes and expectations.

The three empirical challenges associated with the methodology are:

1. Dealing with unobserved heterogeneity which confound the interpretation of our estimates. This is challenging because these unobserved factors may be correlated across generations and over time.
2. Separately identifying the effects of the income support system per se from the effects of poverty more generally.
3. Modelling the complex interactions between a number of inter-related outcomes like educational attainment, family structure, and labour market behaviour.

The detailed data collected using these approaches will allow a number of questions to be addressed:

- What are the pathways through which disadvantage is passed from one generation to the next?
- Does the income support system lead to a culture of welfare dependence or is it that the determinants of poverty are correlated across generations?

### **Intergenerational health effects of military service: A systematic review of the literature**

**Ms Jacqui Beall, CMVH, University of Queensland**

A systematic review uses a systematic and explicit method to identify, select, and critically appraise relevant primary research. This type of review is generally

conducted in the field of evidence-based medicine for assessing the quality of outcomes from specific health interventions.

Mapping the literature to a model of health is a very new approach which gives a broad understanding of the amount and breadth of research that has been conducted in the area of interest. This is conducted prior to the critical appraisal of the evidence.

Adapting this process to the current topic has been challenging because of the desire to identify a broad range of research related to the health, development and well being of military children from conception to adulthood. In addition, it was felt that identifying research assessing family functioning and spouse relationships, even if the impact on children was not explicitly measured, was important and would allow for integration of this research with intergenerational research outside of the military.

Ultimately this approach will produce:

- Understanding of the breadth of military research into the impact on families and children (mapping).
- Understanding of the quality of the research of that has being conducted (analysis of study designs).
- Understanding of the quality and outcomes of the research that links military factors to outcomes in their offspring (critical appraisal).
- A report on the quality and outcomes linking military factors to health and well being outcomes.

Procedure:

Develop comprehensive search terms:

The traditional systematic review uses the PICO (Population, Intervention, Comparison and Outcome) method where search terms are developed for each section of the equation. In the current study we have conceptualized children/families/spouses as the Population, military service as the Comparison/Intervention and health, development and well being as the Outcome. A comprehensive list of descriptors was developed for each and trialed in varies data bases. Descriptors were deleted, altered, or restricted to certain search areas, to try and obtain a balance between specificity and sensitivity. Slightly different approaches are required for different data bases.

Searching data bases:

The data bases to be searched were selected to cover a variety of disciplines. Medline (medical), CINAHL (medical allied health), psycINFO (psychological), ERIC (educational), sociological abstracts (social work/policy).

The P, I/C, O terms were searched separately then combined to obtain papers which included all three areas.

Search results:

- Approximately 5,500 papers were identified from the five data bases.
- These were then searched by title and abstract for inclusion and exclusion criteria
- Papers were included if they involved children, spouse or family of military personnel, any health and well being outcome or policy/service papers where an evaluation or comparison had been conducted.
- Papers were excluded if they did not meet the inclusion criteria, were

- duplicates, single case studies or clinical discussion papers.
- Book chapter and review papers are not primary sources. These articles not original sources, and are not included but their references are analyzed to include relevant primary sources.
- Papers without abstracts were kept for further analysis from full text articles if the title suggested relevance.
- Search of grey literature

#### Mapping to the Lynch Ecological Model of health

To do this a series of codes were developed to identify papers which addressed the various individual and environmental levels and general areas within each sublevel. Codes were also developed to identify important variables in study design.

Each primary source was coded to the Lynch model from the abstract.

Papers where the spouse or family were the outcome (as opposed to the child), were specifically identified.

#### Study design

All full text articles are being collected for the determination of important study design factors.

Once both of these have completed the quality of evidence linking the military environmental variables with child and family outcomes can be determined.

Gaps that could be identified from the mapping so far:

- there is very little relating to the macro environmental factors area of the model
- there is also very little on parent behaviours and parent-child relationships
- there is very little on military children between 0 and 5 years of age (critical development period)
- very little done in adult children

The major themes that can be identified so far:

- lots of papers on family violence and combat exposure
- lots of papers on parental mental health/stress and coping
- papers on the impact of war on family dynamics but very few on parent-child relationships and parental behaviour

The main outcomes are:

- lots of family dysfunction particularly if there are mental health issues in either parent
- there is little direct linking between dysfunction and child outcomes
- DV/abuse the rates in the military are not different from civilian populations
- There has been no evaluation of family support services provided by Defence/DVA
- More longitudinal studies are required

### **Psychiatric epidemiology and cohort studies of war veterans and their families**

**Dr Brian O'Toole**

The main sources of error in epidemiological studies are subjects, measures and

confounding.

In addition, special problems associated with intergenerational studies include subject bias, measurement bias and confounding.

The Australian Vietnam veterans health study involved a cohort of 1000 randomly selected male Australian Army veterans of Vietnam. The population was drawn from a Postings file developed during the Australian 'Agent Orange' study. Wave 1 interviews were conducted from 1991-1993 and Wave 2 interviews from 2005-2006.

A study of the wives (contacted through the veteran) was subsequently conducted using the same measures used in the Veterans.

- Measures used in the study were:
- Physical health (ABS NHS Interview)
- Combat, war trauma and PTSD (veterans)
- Psychiatric diagnoses

Correct addresses were found for 737 veterans for the wave 1 interviews. The community sources (electoral role and telecom) identified the most correct addresses (662).

For wave 1 interviews the strategy was to send invitations and follow up letters to each of the following three sources of address: DVA, Wave 1 address and electoral roll.

Some of the main problems associated with contact were ethics committees, timing of reminders, number of letters mailed and response delays.

The response rates were 87.0% for Wave 1 and 81.7% for Wave 2.

Brian discussed a number of models which had been used to predict non-response. Each of the models revealed a number of military and (in model three) morbidity variables which predicted non response. For more detail on the models see Appendix 7.

Model 3 compared those who have been interviewed in Wave 1 and 2 (391) with those who had been interviewed only once (72). This model revealed a number of psychiatric diagnoses, physical health outcomes, military variables and a substantial number of social variables which predicted non response.

A number of options for adjusting for non-responders were presented along with some examples of the differences in prevalences of certain conditions between unadjusted and adjusted data. The key message is that it is important to consider adjusting for non-responders when interpreting results from similar studies.

A number of measurement errors with such a study design were presented:

- Clinical versus community settings
- Self administered versus interviewer administered schedules
- Subject response versus interviewer judgement
- Psychometric properties of data items (adequacy, reliability and validity)

Interviewer judgement reliability was tested for homogeneity across groups (details can be found in Appendix 7). The main observations were:

- Male counsellors were the least reliable, with intermediate thresholds
- Male non-counsellors were very reliable with moderately high thresholds
- Female counsellors showed reasonable reliabilities but lowest thresholds
- Female non-counsellors showed highest threshold and lowest reliabilities

The main lessons to take home are:

- Subjects – sample, selection and response bias
- Measures – Measurement error, clinical judgements
- Confounding – Control by design or multivariate adjustment

### **Suicide, spina bifida and AML in children of Vietnam veterans –methodological consideration**

**Dr Keith Horsley**

Intergenerational concerns are relatively common among veterans, particularly Vietnam veterans. These concerns are raised by Agent Orange and other chemicals used in Vietnam.

A census of Vietnam veterans was conducted in 1987 with addressed found for 49944/50000 surviving veterans. 80% responded to the health survey. There were no difference between responders and non-responders. As part of the survey veterans were asked of they had fathered a child who had died from illness, accident or suicide.

There appeared to be a high number of children who had died from illness, accident or suicide. So a validation study was conducted to determine if these self-reported rates were accurate.

A key concern of the validation study was the large number of deaths not able to be validated (Accident 529, Illness 469 and Suicide 123). When compared to the population (point prevalence) the relative risk for accident was 1.8 (1.6 – 2.0), illness 1.2 (1.1-1.3) and suicide 3.1 (2.5 – 4.0).

An exploration of the characteristics of the children of Vietnam veterans who suicided showed that:

- 81% were males
- The mechanisms used were similar to the Australian population
- RRMA distribution was very similar to the Australian population
- There was an unusual geographic distribution
- The rates in Queensland were almost double the National rates in suicide. This could be due to the high number of veterans living in Queensland (25% compared with 18% of the National population).

Veterans whose children committed suicide were more likely to self-report anxiety, panic attacks, depression, substance abuse and PTSD. They also self-reported poorer overall health.

Rates of spina bifida were validated by obtaining medical records. The main problems associated with validating this condition were:

- veteran not responding, died or lost to follow up
- child not responding, died or lost to follow up

- doctor or hospital not responding, died or lost to follow up

Due to the problems associated with contacting veterans and children and validating the condition several models were proposed for validating spina bifida:

1. Model 1 – count only validated
2. Model 2 – count validated plus prorated clinician non-response
3. Model 3 – count validated plus prorated not able to be validated for any reason
4. Model 4 – model 3 plus non-responders prorated between validation studies
5. Model 5 – model 3 plus non-responders prorated between validated and not validated

These models showed that the relative risk of spina bifida in children of Vietnam veterans ranged from 1.03 to 2.21. The Australian government opted for model 3, relative risk of 1.52 and ensured that benefits flow through to children of Vietnam veterans with spina bifida.

Rates of acute myeloid leukaemia were validated through matching to National and State cancer registries, looking for clinical notes and contact with children who were still alive.

Models were developed to overcome the non-responders and not able to be validated. Each of the models resulted in a higher prevalence in children of Vietnam veterans (9-18) than the expected (3).

Based on this information the Australian government announced it would accept all AML for treatment in children. The US government referred the study to the NAS who concluded that along with two other studies, the findings were enough for compensation to be awarded.

### **Veterans sons and daughters: Clinical presentation at the VVCS Dr John O'Connor**

In his presentation, Veteran's Sons and Daughters: Clinical Presentation at the VVCS, Dr John O'Connor, Director of Clinical Services provided an overview of the clinical presentations made by the sons and daughters of Vietnam veterans to the Vietnam Veterans Counselling Service (VVCS).

The mean age of the sons and daughters of Vietnam veterans presenting to VVCS is 29 years and 30% now have their own children. They are almost equally represented by gender with about half of those presenting being male and the other half female. Some 70% have parents who have also been clients of VVCS. Those seeking support from the service represent approximately 7% of the total number of sons and daughters of Vietnam veterans.

Based on clinical information as at 2006, with a population of 1589 clients of which 55% were daughters with a mean age of 31.5 years, the most frequently presented problems as classified by DASS21 were moderate to severe depression (20.0

[SD=11.7]), moderate to severe anxiety (14.7 [SD=10.5]) and moderate stress (23.3 [10.1]). An audit for alcohol-related problems shows that sons of Vietnam veterans are at greater risk than daughters (11.7 [SD=9.5] cf. 7.1 [6.9]) although alcohol consumption was still of concern among presenting daughters.

Further detail about the health status of the daughters and sons of Vietnam veterans is available from the 2002 VVCS Study for which a clinical audit was conducted of 684 medical records, as well as focus groups with 650 individuals including sons and daughters of Vietnam veterans who are experiencing difficulties and who have presented to VVCS, and some who are not clients of VVCS.

Key perceptions and attributions were:

- War is responsible for health and family problems (like their parents)
- Others in the community do not understand their family /issues
- Growing up as a child of a VV was not positive
- Bad feelings in the family
- Worthwhile to see a counsellor
- Confident about the future

Among those presenting for counselling support, the average number of sessions was 6.89 (SD 11.44), and 84% had 10 sessions or less. The higher the complexity of the presenting condition, the more sessions were provided, and 50% rated as high to very high complexity. Major predictors were age (older), and employment status.

Most were employed, followed by those unemployed while some were involved in education programs (tertiary, secondary and vocational), and a small group were homemakers and other.

The strongest identifier of health risk was employment status with 1/3rd of presenters being unemployed and having higher presentations of substance abuse, violence, depression, suicidal behaviour, complexity, anger and low self-esteem.

The most common presenting issues found by the clinical audit are:

- Social/Self/Interpersonal (64.5%)
- Mental Health - depression/anxiety/PTSD (39.4%)
- Relationship problems (29.2%)
- Health and Wellness (21.7%)

Some 36% presented with alcohol- and other drug-related issues (AOD) of which 69% were male including dual diagnosis. Unemployed presenters were twice as likely to have alcohol- and other drug-related issues than employed presenters, and were three times more likely than tertiary students. There was higher usage among those with high suicide risk assessment.

Approximately 30% of sons and daughters presented to VVCS with key risk factors for suicide (unemployment, older age group, relationship difficulties) and were at medium to high risk of suicide at presentation. Some 31% demonstrated current suicidal behaviour and 8% had recently attempted suicide. Forty-seven percent had experienced past suicidal behaviour.

Violence was a major concern. Of this group of sons and daughters of Vietnam veterans, 55% presented with past violence and the majority (94%) were victims. They were now more likely to present to VVCS with relationship problems, AOD issues and be involved in current violence. It was also evident that abused sons had now shifted from being a victim to a perpetrator of violence.

For current violence one third were perpetrators and/or victims. The gender breakdown of those perpetrating violence was sons (69%) and daughters (17%). A high level of secondary students (35%) and unemployed (43%) presented as victims of violence.

Further evidence of significant mental health issues among sons and daughters presenting to VVCS for counselling support is available from the evaluation of the Sons and Daughters Booklet (2005) for which a questionnaire was sent to sons and daughters who had an interest in receiving the booklet (n = 554). Of these, 131 had received no services from the VVCS. Using DASS21 and the WHOQoL it would appear that those who had received treatment had higher depression, stress and anxiety and a poorer quality of life.

### **Summary**

A summary of outcomes of discussions held during the seminar is:

1. DVA confirmed:
  - Study population is sons and daughters of Vietnam veterans
  - Research questions include whether or not this population has health differences and if so, whether these are due to war service in Vietnam.
2. However DVA would also like the research project, to the extent possible with this population, to develop a method which has broader applicability to other deployed populations and to consider not only risk factors, but protective factors that may be meaningful for policy making regarding services for veterans and their families.
3. The partially completed literature review on the impact of military service on children and families, previous studies on the children of Vietnam veterans and research on parental wellbeing and children's health and social outcomes all indicated a mechanism likely to be important in this work. This is "Parental mental health and family relationships are key mechanisms for intergenerational transmission' (Strazdins)
4. Seminar participants agreed that it is doubtful whether family relationships can be explored very effectively in a population where the children are in their forties.
5. Initial suggestions for supplementing a more traditional study design as proposed by the Feasibility Study were:
  - Add qualitative methods to explore the life experience of Vietnam veterans. It was noted that this would also assist to understand the temporal aspects at play in this project (relationship between parents' service and childrens' age) and the meaning of being a Vietnam veteran (service was only 12 months in a life but being a Vietnam veteran seems to have broader and longer connotations).
  - Study a case group.
  - Break down the study into smaller parts. This could be done by focussing on outcomes considered to be particularly important or by focussing on sub-groups likely to be particularly affected.

- The study must become a family study, ie studying the children alone is unlikely to be effective; information on both parents is required as well.
6. Other conclusions:
- Epigenetics is an emerging field likely to be relevant to intergenerational health effects. Collection of saliva samples would be useful for future work in this area.
  - A combination of administrative data and survey data is good. There is potential to explore further data available from Defence in addition to data held by DVA. There is potential to collect some information on Fathers from previous studies of veterans.
  - Brian O'Toole's work has shown non-responders are different to responders, so responder bias is likely to be an issue to be managed.
  - Vietnam veterans have a lower educational level than the rest of the community of the same age.
  - Combat exposure is an issue to be considered. Clearly there is a variety of experiences had by people deployed to Vietnam.
  - The results of the 1997 study of the children of Vietnam veterans were discussed and two problems noted:
    - the basis for the estimates of expected rates (especially no control for socio-economic status and for spina bifida the lack of data on community rates at that time)
    - the limited opportunity for the researchers to validate self-reported deaths of children by parents.

A summary of decisions about research design made by the expert team is:

1. The research questions should be:
  - Does the mental, physical and social health of sons and daughters of Vietnam veterans aged between 18 and 50 in 2005 differ from that of
    - The children of defence force personnel who served in the same era but who did not go to Vietnam? (Phase 1)
    - The children of the siblings of Vietnam veterans who did not serve in the military? (Phase 2)
  - If so, what are the risk and protective factors associated with these differences especially those which may have implication for service delivery?
  - To what extent, if any, can direct association be established between those distinctive health characteristics and the active Vietnam service of the father?
2. The study population should include:
  - Army but not Navy or Airforce
  - Conscripts and regular soldiers
  - For a selected year (or more if needed to get numbers up to satisfy power requirements) where there was known to be a high level of activity
  - Both parents
  - Their children (whether one or all to be determined).
3. Recruitment of Mothers and Sons and Daughters to be through Fathers. The existing list of names and addresses to be the starting point. New electronic methods of contact tracing to be used.
4. The comparison group will be Army personnel serving in the same period not deployed to Vietnam.

5. At the time of recruitment permission and contact details of siblings will be sought with the view to the establishment of a community comparison group (of cousins). However this comparison group will not be recruited in the initial phase of the study. There is potential to recruit twins as a subset of siblings as well.
6. Efforts will be made to manage the expected variation in exposure to combat. These could include: collecting information on corps/units, using a combat index, limiting study to a specific year or more.
7. The outcome factors proposed in the Feasibility Study were reviewed and the following recommendations made:
  - Ensure instruments are balanced – ie collecting information on resilience and positive experiences as well as problems
  - No need for medical examination
  - Align to proposed national mental health survey as much as possible
  - Align to measures being used in Defence health surveillance, other military and veteran health studies, and LSAC (Longitudinal Study of Australian Children) as much as possible
  - Add assessment of family relationships, including domestic violence and abuse, and a broader range of social outcomes.
8. Recommendations for qualitative research:
  - Review focus groups undertaken by VVCS to see to what extent the well veteran voice was present and the potential for further analysis. If necessary undertake further qualitative research with veterans and their children who are not clients of VVCS.
  - After the quantitative survey has been done, identify groups of children with particular conditions of importance, or groups of people who demonstrate resilience and undertake qualitative research on their particular service needs.
9. Issues to be canvassed in pre-testing to include:
  - Whether it would more effective to recruit children by:
    - Sending the parents of package of, say 6, kits and ask them to recruit children, collect information and send back to study
    - Or, seeking permission from parents and contact details for children and making contact directly to children
  - What priority issues are for them, and what benefits might be seen from study
  - How to do survey – eg questionnaire, interview, web etc
  - Incentives for participation.

Seminar participants considered the work on the systematic review of the literature on the impact on children of military service, using Lynch's social health model (partially completed) to be very valuable and recommended that with the remaining time the research team:

- Focus on studies of higher quality
- Focus on outcomes of importance
- Include non peer reviewed literature.

Timelines for completion of project:

- Draft research protocol to DVA, end of April
- Pre-testing with children of veterans to be undertaken in May. The following is proposed:

- Recruit children of veterans using snowball technique as follows:
  - VVCS - ? in Townsville
  - Brisbane – start with GP with a high proportion of patients who are veterans
  - Northern NSW
  - ESOs – DVA to organise (CMVH to undertake)
- Data analysis and management plan to be developed in June
- Draft and final report, end of June.

# The Intergenerational Health Effects of Service in the Military

## Appendix 3

### Data extraction proforma

Revised  
June 2007



**CENTRE FOR MILITARY & VETERANS' HEALTH**



<b>Study ID</b>	
<b>Reviewer</b>	

<b>Study author</b>	
<b>Study Title</b>	
<b>Study Source</b>	
<b>Type of study</b>	
<b>Study Design:</b>	

### Study characteristics

<b>Research question</b>	
<b>When performed</b>	
<b>Location</b>	
<b>Population</b>	
<b>Elegibility criteria</b>	
<b>Population selection/ Method of recruitment</b>	
<b>Size</b>	
<b>Follow up (for prospective)</b>	
<b>Control group</b>	
<b>Outcomes</b>	
<b>Outcome measurement tools</b>	
<b>Results</b>	
<b>Statistical analysis of results</b>	
<b>Power analysis?</b>	
<b>Confounders mentioned</b>	
<b>Confounders not mentioned but possible</b>	
<b>Notes</b>	

### Short Quality assessment

	<b>Yes</b>	<b>No</b>	<b>Can't tell</b>
Is the purpose of the study clear and well defined?	2	0	1
Is the population well defined and properly selected?	2	0	1
Are the methods clearly described and appropriate?	2	0	1
Are the results presented in a clear and understandable format?	2	0	1
Does the interpretation of the results seem consistent with the results presented?	2	0	1
Are there other explanations that could account for the results?	0	2	1
<b>Overall score</b>			

# The Intergenerational Health Effects of Service in the Military

## Appendix 4

### Data sources for contacting veterans

Revised  
June 2007



**CENTRE FOR MILITARY & VETERANS' HEALTH**



Data sources available for contacting Veterans:

- The latest contact between DVA and the Vietnam veterans was the most recent mortality study in 2001. ~6000 veterans are dead as of 2001. There are currently ~50000 surviving veterans
- ~45000 questionnaires were sent for the AIHW study in the late 1990's. AIHW still have this information that we could access
- The electoral role can be matched to the nominal role for contact details
- DVA have ~30000 clients with fairly robust contact details for them
  - Potentially biased group: compensation/retirement
- 20000 not on DVAs book are a very important group to get to
  - We could use the electoral role to cross check
- the option of comparing clients with non clients was discussed as an option
  - issues with when people put in claims; they often claim at retirement; possible source of bias
  - detailed information on the claim would be needed; we could target sub-groups
- there are ~120000 children of Vietnam veterans. ~7000 use DVA counselling services and several hundred have come to DVA for physicals
  - ~100000 children who are 'unheard voices'

# The Intergenerational Health Effects of Service in the Military

## Appendix 5

### Family information template

Revised

June 2007



**CENTRE FOR MILITARY & VETERANS' HEALTH**

Name: \_\_\_\_\_

Genetic File No: \_\_\_\_\_

## *Family History Questionnaire*

### **Other**

## **About this Questionnaire**

To help us work out whether the cancer in your family is inherited, we need to obtain a lot of information from you. The information you provide about you and your family will be treated in a confidential way and only accessible to staff in the clinic who will be working with you.

This information will **not** be used to contact other members of your family.

We will be able to give you our best advice when you come in for you appointment if you are able to complete this questionnaire and return it to us **before** your appointment. Please return it to us in the reply paid envelope provided.

**If you have any questions** about this questionnaire, please call Helen Smith on 03 8341 6224.

## Personal Details

First Name(s): \_\_\_\_\_ Surname: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_

Date of Birth: \_\_\_\_\_ Telephone: Home \_\_\_\_\_  
Work \_\_\_\_\_

Occupation: \_\_\_\_\_

Schooling/Education: \_\_\_\_\_

What is your family's ethnic/religious origin? \_\_\_\_\_  
*(This may be of relevance in certain familial cancers)*

Name of your spouse/partner *(if applicable)*: \_\_\_\_\_

How did you hear about the clinic? \_\_\_\_\_

What do you hope to gain by attending the Clinic? \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Your Doctor's Name: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_

Telephone: \_\_\_\_\_

It is helpful if we are able to link records of people who attend the clinic for Family History purposes.

Have any of your relatives ever attended this clinic, or any other Genetics Clinic in Victoria?

If so, please give their names and dates of birth.

Name: \_\_\_\_\_ Date of Birth: \_\_\_\_\_

Name: \_\_\_\_\_ Date of Birth: \_\_\_\_\_

## Your Personal History of Cancer/Tumours

*Have you had any cancers or tumours?*

No

Yes → type(s) of cancer/tumour

*If the cancer started in one place and spread, Please indicate where it started.*

Age at  
Diagnosis

Year of  
Diagnosis

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Did you have surgery to remove the tumour?  Yes  No

If yes, type of tumour: \_\_\_\_\_

Name of surgeon who removed tumour: \_\_\_\_\_

Hospital where surgery performed: \_\_\_\_\_

Date (approximate) of surgery: \_\_\_\_\_

## Your Children

Please list all children. If daughters have married please list the last names they use now.

Full Name  
birth

Sex (circle)  
Age

Date of

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M / F

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M / F

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M / F

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M / F

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M / F

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M / F

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Are all your children alive?

Yes

No → Full name

Cause of death

Age at death

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Have any of your children had any cancers or tumours?

No

Yes → Name(s)

Type(s) of  
cancer/tumour\*

Age at &/or year  
of diagnosis      age at death

Date of &/or


\* *If there was more than one cancer, please list them all.*

*If the cancer started in one place and spread, please indicate where it started.*

## Your Brothers and Sisters

Please list all your brothers and sisters, living and deceased. If sisters have married please list the last names they use now. If you have half-brothers/sisters, please write "half brother" or "half sister" beside their name and "same mother" or "same father", depending on which is the shared parent. If you have step brothers/sisters that are not related by blood, please do not list them.

Full Name birth	Sex (circle) Age	Date of	
_____	M / F	_____	_____
_____	M / F	_____	_____
_____	M / F	_____	_____
_____	M / F	_____	_____
_____	M / F	_____	_____
_____	M / F	_____	_____

Are all your brothers and sisters alive?

Yes

No → Full name

Cause of death

Age at death

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Have any of your brothers or sisters had any cancers or tumours?

No

Don't know

Yes → Name(s)

Type(s) of  
cancer/tumour\*

Age at &/or year  
of diagnosis      age at death

Date of &/or

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\* *If there was more than one cancer, please list them all.*

*If the cancer started in one place and spread, please indicate where it started.*

## Your Mother

Mother's full name: \_\_\_\_\_

Date of Birth: \_\_\_\_\_ Maiden Name: \_\_\_\_\_

Is your mother alive?  Yes → Age: \_\_\_\_\_

No → Cause of death? \_\_\_\_\_ Age: \_\_\_\_\_

Has your mother had any cancers or tumours?

No  Don't know

<input type="checkbox"/> Yes →	Type(s) of cancer/tumour Address at time of death	Age at &/or year of diagnosis	Date of &/or age at death
	<i>If the cancer started in one place and spread Please indicate where it <u>started</u>.</i>		
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

## Your Father

Father's full name: \_\_\_\_\_

Date of Birth: \_\_\_\_\_

Is your father alive?  Yes → Age: \_\_\_\_\_

No → Cause of death? \_\_\_\_\_ Age: \_\_\_\_\_

Has your father had any cancers or tumours?

No

Don't know

Yes → Type(s) of cancer/tumour  
Address at time of death  
*If the cancer started in one place and spread  
Please indicate where it started.* Age at &/or year  
of diagnosis Date of &/or  
age at death

\_\_\_\_\_


## Your Mother's Family

### Your Mother's Brothers and Sisters (Your Uncles and Aunts)

Please list all your mother's brothers and sisters, living and deceased. If women have married, please list the last names they use now.

Full Name birth	Sex (circle) Age	Date of	
_____	M / F	_____	_____
_____	M / F	_____	_____
_____	M / F	_____	_____
_____	M / F	_____	_____
_____	M / F	_____	_____
_____	M / F	_____	_____

Are all your Mother's Brothers and Sisters alive?

Yes

No → Full name

Cause of death

Age at death

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

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\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Have any of your Mother's Brothers or Sisters had any cancers or tumours?

No

Don't know

Yes → Name(s)

Type(s) of  
cancer/tumour\*

Age at &/or year  
of diagnosis      age at death

Date of &/or

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_


\* *If there was more than one cancer, please list them all.*

*If the cancer started in one place and spread, please indicate where it started.*

## Your Mother's Family (continued)

### Your Mother's Mother (Your Maternal Grandmother)

Full maiden name: \_\_\_\_\_ Date of

Birth: \_\_\_\_\_

Is your mother's mother still alive?  Yes → Age: \_\_\_\_\_

No → Cause of death? \_\_\_\_\_ Age: \_\_\_\_\_

### Has your mother's mother had any cancers or tumours?

No

Don't know

Yes → type(s) of cancer/tumour  
*If the cancer started in one place and spread,  
Please indicate where it started.*

Age at Diagnosis

Year of Diagnosis

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

### Your Mother's Father (Your Maternal Grandfather)

Full name: \_\_\_\_\_ Date of

Birth: \_\_\_\_\_

Is your mother's father alive?  Yes → Age: \_\_\_\_\_

No → Cause of death? \_\_\_\_\_ Age: \_\_\_\_\_

Has your mother's father had any cancers or tumours?

No  Don't know

<input type="checkbox"/> Yes → type(s) of cancer/tumour <i>If the cancer started in one place and spread, Please indicate where it <u>started</u>.</i>	Age at Diagnosis	Year of Diagnosis
_____	_____	_____
_____	_____	_____

Your Mother's Extended Family

Please give details of any cousins or other relatives on your mother's side of the family who have had any cancers or tumours.

Name(s)	Relationship to you Type(s) of cancer/tumour*	Name of their parent &/or Age at &/or grandparent (if known) year of diagnosis		
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

\* *If there was more than one cancer, please list them all.  
If the cancer started in one place and spread, please indicate where it started.*

## Your Father's Family

### Your Father's Brothers and Sisters (Your Uncles and Aunts)

Please list all your father's brothers and sisters, living and deceased. If women have married, please list the last names they use now.

Full Name birth	Sex (circle) Age	Date of	
_____	M / F	_____	_____
_____	M / F	_____	_____
_____	M / F	_____	_____
_____	M / F	_____	_____
_____	M / F	_____	_____
_____	M / F	_____	_____

Are all your Father's Brothers and Sisters alive?

Yes

No → Full name

Cause of death

Age at death

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

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\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Have any of your Father's Brothers or Sisters had any cancers or tumours?

No

Don't know

Yes → Name(s)

Type(s) of  
cancer/tumour\*

Age at &/or year  
of diagnosis      age at death

Date of &/or

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_


\* *If there was more than one cancer, please list them all.*

*If the cancer started in one place and spread, please indicate where it started.*

## Your Father's Family (continued)

### Your Father's Mother (Your Paternal Grandmother)

Full maiden name: \_\_\_\_\_ Date of

Birth: \_\_\_\_\_

Is your father's mother still alive?  Yes → Age: \_\_\_\_\_

No → Cause of death? \_\_\_\_\_ Age: \_\_\_\_\_

### Has your father's mother had any cancers or tumours?

No

Don't know

Yes → type(s) of cancer/tumour  
*If the cancer started in one place and spread,  
 Please indicate where it started.*

Age at Diagnosis

Year of Diagnosis

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

### Your Father's Father (Your Paternal Grandfather)

Full name: \_\_\_\_\_ Date of

Birth: \_\_\_\_\_

Is your father's father alive?  Yes → Age: \_\_\_\_\_

No → Cause of death? \_\_\_\_\_ Age: \_\_\_\_\_

Has your father's father had any cancers or tumours?

No  Don't know

<input type="checkbox"/> Yes → type(s) of cancer/tumour <i>If the cancer started in one place and spread, Please indicate where it <u>started</u>.</i>	Age at Diagnosis	Year of Diagnosis
_____	_____	_____
_____	_____	_____

Your Father's Extended Family

Please give details of any cousins or other relatives on your father's side of the family who have had any cancers or tumours.

Name(s)	Relationship to you Type(s) of cancer/tumour*	Name of their parent &/or Age at &/or grandparent (if known) year of diagnosis		
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

\* *If there was more than one cancer, please list them all.  
If the cancer started in one place and spread, please indicate where it started.*

Thank you for completing this questionnaire. Please return it in the Reply Paid envelope supplied.

If you have any questions please contact Helen Smith on 03 8341 6224.