

# **QUESTIONS ON NOTICE FROM THE SENATE FADT COMMITTEE (DEFENCE HEALTH INQUIRY)**

## **REPATRIATION COMMISSION AND DVA – PROCESS ISSUES**

### **Medical records/files**

**Does HIC collect and provide to you data on the level and type of services utilised by veterans as a means of determining the most common disorders in different age groups?**

Through the structure of the Medical Benefits Scheme a specific item number is used to identify the service accessed by a veteran. This item number also specifies the “fee” payable to the service provider. HIC collects this data which is transmitted to DVA on a daily basis. Through DVA’s Departmental Management Information System the data can be manipulated to analyse usage and treatment trends.

**Given that some health care cards may only cover certain conditions can the HIC also monitor other services used by holders of such cards through tracking the use of Medicare cards or PBS claims?**

Where a veteran utilises his/her Medicare card, as opposed to a DVA Treatment Card, the HIC is able to identify the person as a veteran. The identification is obtained through a “unique identifying number” (UIN). This “cross reference” mechanism uses personal details such as name, address and date of birth to confirm a match. However, this “cross reference” is only reliable where the client information is consistent across both agencies.

There are also arrangements, which govern agencies sharing information because of privacy requirements. Specific permission is required through appropriate delegates. Under some circumstances individual veterans would need to consent to information being released.

**Is this procedure undertaken as a means of identifying other disorders which may need to be included in health care card provision?**

No. DVA is unable to use this procedure because of concerns with data integrity and privacy limitations.

**If you identify various disorders as likely to be more common amongst a group of veterans, are you able to also obtain data from private health funds or the Institute of Health and Welfare about the prevalence of such disorders?**

Data on community or veteran prevalence of various disorders is not available from private health funds. The Department of Veterans’ Affairs (DVA), however, does obtain data from the Australian Institute of Health and Welfare on disorder prevalence in the community.

The prevalence of various disorders for groups of veterans is being studied by DVA through research projects commissioned by DVA that deal with specific conflicts, such as the Gulf and Korean wars. DVA also conducts a Survey of Veterans, War Widow(er)s and their carers every three years that collects data on self-reported disorders. The last survey was conducted in 2003.

**One submission suggests that more specialist or expert medical services should be available to reservists, following the US example.<sup>1</sup>**

- **Is this an option for Australia, assuming such expertise is available?**
- **What health services are available to peacekeepers on their return from a mission?**

DVA understands that there is a shortage of specialist and expert medical skills in Australia in many areas, but efforts are made to ensure that returning reservists have all of their needs met. It is in the nature of reserve service that reservists are often difficult to get in contact with professionals with the appropriate skills. This has been a known problem for many years, both in Australia, the United States and the United Kingdom. Each country uses a variety of strategies to try to ensure that the health needs of reservists are met, and there is a regular exchange of information about this problem.

Where a reservist is eligible for health care from DVA, they have access to the arrangements pertaining to DVA's White or Gold Card, as appropriate.

**You also refer in the Annual report<sup>2</sup> to an assessment of the use of smart cards 'in maintaining health records'**

- **Can you outline the process?**

DVA has been involved in a trial with the Brisbane Waters Private Hospital and an ICT firm called Smart Health Solutions as part of a NOIE IT Online grant. The aim of the trial was to evaluate the functionality of smartcards in providing authorisation to securely access patients' online clinical information and transmission of hospital discharge information.

DVA's component of the evaluation of the trial was to conduct interviews and collate and analyse attitudinal and perceptive feedback from veterans and health care providers. These findings are of interest, and will report to, the HealthConnect project – the proposed national health information network to facilitate the safe collection, storage and exchange of consumer health information between authorised healthcare providers.

DVA identified veterans living in the vicinity of the Brisbane Waters Private Hospital (NSW Central Coast), an area that has a high concentration of veterans, around 11% of the total area population.

---

<sup>1</sup> Submission 6, Australian Peacekeepers & Peacemakers Association, p. 6, Paras 34-37

<sup>2</sup> Repatriation Commission/Department of Veterans' Affairs Annual Report 2002-2003, p. 64

A series of three separate mailouts were sent out by DVA, inviting veterans to apply for a smartcard. Each mailout included advice that participating in the trial was entirely voluntary and that veterans were under no obligation to be involved. The three mailouts were approved by the DVA Ethics Committee.

DVA's contribution to the process included:

- identification of Central Coast veterans;
- promotion of project to Central Coast veterans;
- provision of human resources to support project development, implementation and evaluation;
- development and testing of a mechanism for the secure transfer of hospital protocol casemix data to DVA;
- participation in qualitative and quantitative research and analysis;
- ensuring privacy requirements of the project complied with Federal Government guidelines; and
- maintaining a watching brief on other IM&ICT industry developments with a focus on electronic health record initiatives.

DVA and the Department of Health & Ageing worked together to develop an evaluation and research framework to evaluate activities occurring during the period of the trial. Both agencies contracted independent market research companies to assist with surveying of participants in the trial. Veterans participating in the trial were sent a letter inviting them to 'opt-out' of the evaluation process if they chose. Data was collected and analysed, and a draft evaluation report has been circulated within the Department for comment. The final report will be presented to the Repatriation Commission for consideration and released publicly in due course.

### **How does the use of smart cards tie-in with the computerisation of medical records?**

The use of smartcards is one method that can be used to authenticate and access computerised medical records. Computerised medical records can be authenticated and accessed by other means such as a login and passphrase. Smartcards were used in this trial as an authentication and access method for a range of reasons including the generally accepted use of cards within the veteran community (Gold & White DVA Treatment cards), and with the Australian public (Medicare cards). Smartcards and their embedded chips can also be used to strengthen the identification and/or authentication for authorised card holders of that card - an important feature for ensuring security of computerised medical records.

The outcomes of the trial will also contribute to the body of studies that will inform the national HealthConnect project in its role to develop a better connected health system for all Australians. Use of smartcards and other technologies are being assessed in a number of electronic health record implementations both within Australia and overseas.

**You refer also to the monitoring of veterans' health through specific studies on the Gulf War and the Korean War. The latter ended in 1953, 51 years ago.<sup>3</sup>**

- **There are two earlier reports on Korean veterans, but what were the main reasons for not undertaking earlier research?**
- **Was the quality of data available suitable?**

Epidemiology is a relatively recent science, having developed as a mainstream area of study only in recent decades. DVA commenced its current focus in 1994 with the study of the Mortality of Vietnam Veterans. DVA has been building up its expertise since that study.

Until about six years ago, the Korean War veteran community did not raise any specific need for such studies. When the community raised this issue, Government responded promptly to their needs, and began preliminary work, such as the construction of a Nominal Roll. Once this was completed, the Cancer Incidence and Mortality studies were completed.

For cancer incidence, no useful data existed before 1982. For death, useful data was available from a variety of sources, and although the quality was variable, it did satisfy our needs.

**Both the Commission and the RMA can identify areas for study with the likely objective of developing Statements or issuing a determination. What factors determine priority of topics?**

The *Veterans' Entitlements Act 1986* precludes the RMA from undertaking any research. The Commission alone is responsible for research. In determining the Commission's research agenda, many factors are considered. These include the wishes of the veteran community, the scientific interest in the questions that are raised, the viability of the proposed research, the availability of resources, and ethical, legal and moral considerations.

In terms of the RMA's determination of its priority for the consideration of SOPs, DVA keeps the RMA informed on the frequency with which medical conditions are the subject of claims under the *Veterans' Entitlements Act*.

**Would you agree with the Regular Defence Force Welfare Association Inc.<sup>4</sup> that there is a need for further work on psychological issues, especially in respect of younger veterans?**

Yes. The Commission has a series of projects being developed to address this need.

---

<sup>3</sup> See Minister for Veterans' Affairs Press Release, 2 December 2003, *Australian Government to Conduct Korean War Veterans General Health Survey*

<sup>4</sup> Submission 5, Regular Defence Force Welfare Association Inc., pp. 3-4, Paras 14-15

## **Research**

**What links are there with the Department of Health and Ageing and bodies such as the NHMRC to ensure that there is limited duplication of research on veterans' health and service need issues?**

DVA has close links with the Department of Health and Ageing through involvement in major research projects such as the Coordinated Care Projects.

DVA operated a research grants program up to the round that commenced in early 2004. This program is being phased out in order to free up resources for more commissioned research. Individual grants extend over a three or four year term.

The grants program was advertised nationally, as a component of the NHMRC research grants program, and applications were submitted in the first instance to the NHMRC for scientific evaluation. This prevented duplication between the two agencies.

**Does the Australian Centre for Posttraumatic Mental Health<sup>5</sup> undertake work on areas other than PTSD?**

Yes. In 2000 the Repatriation Commission determined that the role of the Australian Centre for Posttraumatic Mental Health (ACPMH) should be expanded beyond a focus on PTSD to include broader mental health conditions that impact on veterans. ACPMH has provided assistance with the development of guidelines for the treatment of anger management problems and currently is developing alcohol treatment guidelines. This work specifically relates to treatment of veterans. However, the centre has also established liaisons and other work with the Australian Defence Force (ADF) with regard to post-deployment adjustment and development of the ADF alcohol strategy.

Other research work undertaken by the centre covers areas such as Alzheimer's disease, psychiatric morbidity, cognitive counselling techniques, anxiety disorders, depression, psychometric analysis, Quality of Life assessments, military stress and performance and schizophrenia.

**Is its work widely known to the veteran community?**

Yes. ACPMH produces a regular newsletter of its activities and distributes it to ex-service organisations and health providers. The centre has conducted numerous awareness and education courses for health providers, veteran community representatives and DVA staff and has presented at national and international conferences. ACPMH presented recently at a DVA Research Seminar and is planning to present at the Asia Pacific Military Medicine Conference and the ADF Mental Health Conference. It has also produced a series of brochures, fact sheets, a comprehensive booklet on PTSD and maintains a website with relevant information on PTSD and related mental health information.

---

<sup>5</sup> Submission 8, Repatriation Commission, p. 13, Paras 62-63. The Centre, at the University of Melbourne, also publishes newsletters and brochures

### **Does it cover both older and younger veterans?**

The needs of older veterans has not been a major focus for the centre to date. ACPMH accredits PTSD treatment programs of which two programs are specifically tailored to the needs of older veterans. Much of the centre's work, since opening in 1995, has been focussed on the group of Vietnam veterans who have been highly represented in the cohorts of PTSD treatment programs. Its more current collaboration with the ADF means it has been developing a body of knowledge and experience about the needs of more recent young veterans and current serving ADF personnel.

## **DVA – HEALTH ISSUES**

### **Are the major health problems experienced now and likely to be experienced in the future capable of being divided into problems related to service and those more likely to be related to age and lifestyle?**

Most disease is multifactorial in origin. Each particular disease is likely to have origins in genetics, lifestyle choices, age and factors related to service. It would be difficult to categorise each disease into problems related to service and those more likely to be related to age and lifestyle.

Moreover, it needs to be borne in mind that the incapacity stemming from a disease with causation directly relating to service, for example a joint injury in training or combat, can be accelerated with the ageing process.

### **Radiation**

#### **Given the fact of 'friendly fire' in many wars, and the use by the US of depleted uranium in the Gulf War and Iraq War, do you expect an increase in uranium related disease?**

There are no known health effects of depleted uranium in humans. What is suspected is that it might result in renal damage in the longer term. This is because in studies of laboratory animals, uranium given in high doses results in renal damage. It is also envisaged that there may be a risk for cancer, as DU is a weak emitter of alpha particles. However, this risk of increased cancer has not been actually observed in any population of humans that have been exposed to DU. Thus, we do not know if there is any level of DU related disease. Moreover, at the exposure level that we believe Australians experienced it would be difficult to envisage that there would be any adverse effects.

- **At what stage was Australia aware of the use and effect of depleted uranium weapons by allied forces?**

DVA understands that for a brief period in the 1980s, certain Australian close-in air defence systems used on Royal Australian Navy ships used depleted uranium. Depleted uranium is also used in a wide variety of industrial applications such as in drills in engineering and in early Boeing 747 aircraft. Given this, Australia has been broadly aware of the potential for exposure to DU since the early 70s, although it has not been seen as a matter of particular concern until the years after the 1990-91 Gulf War. As noted above, there are no proven health effects of depleted uranium, and although it is suspected that it might cause renal disease or cancer, this has not been actually observed either in human populations generally or in Australian veterans.

**Some of the recent work on depleted uranium suggests that it can have a long term effect.<sup>6</sup> Has the Commission set up a program which can measure such effects on those known to have been exposed?**

The Commission does not accept that there is any consensus of informed medical opinion that suggests that depleted uranium has any effects either long term or short term on human health. The views of Dr Bertell have not been generally accepted and many would see them as being divergent with authoritative reviews that have been conducted by independent scientific bodies. Further the Commission does not know of any individuals with exposure to depleted uranium. However, the Commission will continue to monitor the situation and if health effects are demonstrated or exposure is shown, it will modify policy, as required.

**It has been said that the urine testing for depleted uranium that was available after the Gulf War was only for those who were still in the ADF. If so, was DVA advised of this and was it able to make services available to veterans and others?**

The Commission would carefully consider any request for urine testing for depleted uranium in a veteran. Thus far only a very small number of veterans have requested this testing. It should be noted that the levels of uranium in exposed persons decreased with the passage of time, thus with so many years since the Gulf War, it may be that urine testing has limited or even no value.

**Is it generally agreed that there is a greater risk of death from cancer than the development of major renal problems in those affected by depleted uranium?<sup>7</sup>**

It is not generally agreed that there is a greater risk of death from cancer than from any other effect of depleted uranium. Indeed, repeated studies of populations with exposure to uranium in industrial processes have not shown any difference in cancer rate from the general population.

---

<sup>6</sup> Dr Rosalie Bertell, *Gulf War Veterans and Depleted Uranium*, [www.pays.ca /pages/nl/rb990504](http://www.pays.ca/pages/nl/rb990504)

<sup>7</sup> Dr Rosalie Bertell, *Gulf War Veterans and Depleted Uranium*, [www.pays.ca / pages/nl/rb990504](http://www.pays.ca /pages/nl/rb990504)

**Insoluble uranium, such as was released in the Gulf War, is regulated by its radiological properties, and not its chemical properties. Because of its slow absorption through the lungs and long retention in body tissues, its primary damage will be due to its radiological damage to internal organs rather than chemical damage to the renal system. Obviously, both types of damage occur simultaneously, therefore it is a matter of judgement which severe damage, radiological or chemical, occurs at the lowest dose level. However, with the lengthening of the time during which the contaminant resides in the body and the low overall dose, the risk of cancer death becomes greater than the risk of significant damage to the renal system. (Bertell)**

The work that is referred to is the work of Dr Bertell. The work of Dr Bertell in the area of depleted uranium is controversial. It is noted that Dr Bertell has published her views on the world wide web, but has not written a paper on the subject for a peer-reviewed journal. Dr Bertell's views on breast mammography, where she argues against using mammography for breast cancer screening, are controversial, and would be strenuously opposed by most informed medical opinion. As far as our Gulf War 1990-91 veterans are concerned, we have examined their rate of cancer and found no evidence of any adverse effect from DU.

**Has any assessment been made of the risk of cancer relative to the general risk of cancer experienced in the community?**

Yes. The Gulf War Veterans' Health Study found that the number of cancers among Gulf War veterans was small, in fact lower than those expected in the general population.

**Are there Statements of Principles on depleted uranium?**

No. Depleted uranium, within the context of the *Veterans' Entitlements Act 1986*, could only be considered as a causal factor. Under the relevant sections of the *Veterans' Entitlements Act*, Statements of Principle relate to particular diseases or injuries, rather than causal factors. There are, however, no Statements of Principle factors that mention depleted uranium a specific causal factor, although it clearly would meet the definition of a projectile required for gun shot wound etc.

**Can you outline any Statements of Principles or Commission determinations that have been made with respect to ionising radiation, especially in conjunction with exposure to other substances?**

There are many RMA Statements of Principles (SOPs) with ionising radiation factors although the wording and requirements vary with the different medical conditions.

There are no SOPs with compound factors; therefore, ionising radiation in conjunction with exposure to any other substance, is not a factor in any SOP.

The Repatriation Commission has issued four S180A Statements, for the following conditions:



Chronic myeloid leukaemia  
Acute myeloid leukaemia  
Acute lymphoid leukaemia  
Chronic lymphoid leukaemia

None of the S180A Commission Statements have ionising radiation factors. However, the RMA SOPs for Chronic myeloid leukaemia, Acute myeloid leukaemia and Acute lymphoid leukaemia do have factors involving ionising radiation.

Several SOPs have specified medical condition factors where radiation is a possible cause of the medical condition.

Ionising radiation is referred to as atomic radiation, therapeutic radiation and ionising radiation.

SOPs with radiation factors are listed below in their relevant categories.

### **SOPs with 'ionising radiation' as factor**

Acute blepharitis

### **SOPs with therapeutic radiation as a factor**

Acoustic neuroma  
Acquired cataract  
Acute lymphoid Leukaemia  
Acute myeloid leukaemia  
Aortic stenosis  
Atherosclerotic peripheral vascular disease  
Cardiomyopathy  
Carotid arterial disease  
Chronic myeloid leukaemia  
Chronic pancreatitis  
Chronic sinusitis  
Congenital cataract  
Impotence  
Ischaemic heart disease  
Malignant neoplasm of the bladder  
Malignant neoplasm of the brain  
Malignant neoplasm of the breast  
Malignant neoplasm of the cerebral meninges  
Malignant neoplasm of the colorectum  
Malignant neoplasm of the endometrium  
Malignant neoplasm of the lung  
Malignant neoplasm of the Salivary Gland  
Malignant neoplasm of the stomach  
Malignant neoplasm of the thyroid gland  
Non-aneurysmal aortic atherosclerotic disease  
Non-melanotic malignant neoplasm of the skin  
Open-angle glaucoma  
Osteomyelitis  
Otitis externa  
Otitis media  
Peripheral neuropathy  
Sensorineural hearing loss  
Soft tissue sarcoma

## SOPs with atomic radiation as a factor

Acquired cataract  
Acute lymphoid leukaemia  
Acute myeloid leukaemia  
Chronic myeloid leukaemia  
Goitre  
Malignant neoplasm of the bladder  
Malignant neoplasm of the brain  
Malignant neoplasm of the colorectum  
Malignant neoplasm of the lung  
Malignant neoplasm of the stomach  
Myeloma  
Non-melanotic malignant neoplasm of the skin  
Soft tissue sarcoma

SOPs with a medical condition factor where a possible cause of that condition is irradiation

Deep vein thrombosis  
(Factor: “trauma to the affected vein”)

Morbid obesity  
(Factor: “hypothalamic disorder”)

Symptomatic Epstein-Barr virus infection  
(Factor: “immunodeficiency state”)

Acute blepharitis  
Acute sinusitis  
Chicken pox  
Chronic blepharitis  
Chronic sinusitis  
Conjunctivitis  
Herpes zoster  
Meliodosis  
Osteomyelitis  
Otitis externa  
(Factor: “immunocompromised state”)

Conjunctivitis  
(Factor: “external burn of the affected eye”)

## Mental Health

**Do you accept the statement of the Australian Peacekeepers and Peacemakers Association that there has been insufficient recording of stressors which may contribute to later mental health problems; and that DVA and Defence do not 'have a clear picture of the state of the mental health of young veterans.'**<sup>8</sup>

The issue is not straight-forward. It can depend on whether one is talking about combat or post combat stressors or a combination of them. The nature of mental health conditions is such that it is not always possible to accurately predict an individual's response to a specific stressor. It should be noted that stress is additive and that post-deployment issues such as readjustment to civilian life, relationship difficulties, financial hardship etc may contribute significantly more to the veteran's health than the original service-related stressor. While stressors can be identified in post-deployment checks there is a need for veterans to accurately report their health status. Sometimes this is not done, especially if the serving member believes it may lead to an early end of their career in the military.

That said, DVA's picture of the mental health state of young veterans continues to be improved by the following:

- findings of the Gulf War Study and the Pathways to Care Research Project;
- presentation of young veterans to the Vietnam Veterans Counselling Service;
- closer liaison with ADF on health issues such as mental health , alcohol and substance misuse;
- participation in and representation of the APPA in forums, such as the DVA National Younger Veterans Consultative Group and the DVA Alcohol Management Health Promotion Working Group;
- the Transition Management Service including the Defence Transition Pilot Scheme involving VVCS in Townsville which is providing assistance to those exiting the ADF and will also provide information about needs and ongoing assistance required by young veterans; and
- ACPMH collaboration with the ADF on development of a post-deployment adjustment program from which further knowledge will be gained about the needs of young veterans.

**Do you consider there has been a sufficiently broad distribution of information on the possible slow development of mental health problems?**

The amount of information available to veterans and health providers on mental health and related problems and coping strategies has improved with the implementation of their respective mental health and alcohol management strategies. However, as with the general community, the problem of poor mental health literacy and concern about the stigma of mental health disorders remain significant barriers for young veterans. Continued work is required to improve awareness and understanding of the nature of mental health problems experienced by veterans and ways to access assistance and treatment.

---

<sup>8</sup> Submission 5, Australian Peacekeepers & Peacemakers Association, pp. 1-2, Paras 6 and 11

**Are older veterans also making claims concerning PTSD and other mental health problems?**

Yes. The number of PTSD claims by older veterans has risen in recent years overtaking generalised anxiety as the most common mental health disability approved for this group. Other mental health problems may arise from a range of life experiences and adjustments relating to retirement, loss and bereavement and physical or mental health degenerative conditions related to ageing, such as dementia.

*Note: Compensation to provide information on percentage increase (if possible)*

**What training is provided to DVA staff to enable them to understand the complexities of psychological health/psychiatric problems to assist veterans with their queries?**

- State Offices have conducted various customer service training sessions that encompasses awareness of mental health issues;
- training provided to Departmental claims and assessment officers incorporates information of the diagnostic criteria of a range of psychiatric and related conditions;
- a resource booklet available to staff and managers provides information and guidelines on how to respond to clients who present with challenging behaviours including mental health and related problems;
- professional staff of the VVCS have the opportunity for professional clinical development through training and external supervision; and
- the Mental Health Policy Unit of DVA is formulating a strategy for improving mental health literacy that will include a consideration of the needs of DVA staff.

## **Research**

**Has the past collection of data on injury and disease<sup>9</sup> guided the selection of research topics or provided information to the Commission or the RMA useful for Statements of Principles or determinations?**

- **If so, can you provide some examples?**

Yes. Two examples are:

- results of the Vietnam Veterans Morbidity Study which the Repatriation Commission developed into a range of program responses to enhance health service delivery for this veteran cohort; and
- an analysis of mental health disorders in the veteran community conducted to inform development of DVA's mental health policy led to research on the pathways to care taken by veterans recently compensated for a mental health disability. The Repatriation Commission will consider the findings of this research in the near future.

---

<sup>9</sup> Whether provided from Defence or based on applications made by veterans

**Reference is made in your submission a paper by Hyams<sup>10</sup> which suggests that all wars produce similar physical/psychological symptoms, which are then classified under various 'syndromes'.**

- **Why does DVA consider this paper 'seminal'**

We see this paper as seminal because it generated a new way of thinking about the health effects of being deployed. Previously, most people who were concerned about the health of veterans had looked for specific exposures on particularly deployments. The paper by Hyams et al indicated that it was the fact of deployment that created feelings of ill-health.

- **In what ways would a report such as this affect the operation of DVA?**

The paper had an effect on the way we treat veterans returning from a deployment. Under a policy change announced by the then Minister, the Honourable Bruce Scott MP, any veteran returning from a deployment with symptoms that are difficult to diagnose is provided with treatment until the condition is diagnosed.

**[Ie do you interpret this paper as saying that the actual cause of some problems is irrelevant in terms of getting access to treatment, because you will get similar symptoms regardless of the presence or absence of various substances?]**

**From your knowledge of formal medical (including psychiatric) complaints, treatment, and compensation claims arising from recent deployments, have you been able to obtain useful information for future research?<sup>11</sup>**

Our claims experience informs the selection of the research population.

**The US National Academies<sup>12</sup> has produced several reports on radiation related illness, including the 2000 'Five Series Study' which examines the mortality of military participants in US Nuclear weapons tests.**

- **Have you found the National Academies work useful in helping limit the scope of research that may be undertaken on Australian veterans?**

It has made a minor contribution.

---

<sup>10</sup> Submission 8, Repatriation Commission, p. 9, Para 44. This paper is Kenneth C Hyams et al, 'War Syndromes and their Evaluation', Annals of Internal Medicine, 125(5) 1996, pp 398-405

<sup>11</sup> The data bases referred to by Defence in its submission should have been able to identify these incidents. If the data bases are being used effectively, there should be adequate follow through of outcomes

<sup>12</sup> Papers by the Academies can be found at [www4.nationalacademies.org](http://www4.nationalacademies.org)

**The research that is currently being undertaken on personnel at Maralinga and related sites uses the methodology of dosimetry. Is this methodology more precise than that used in the US where it was thought in some cases that the higher levels of exposure were underestimated <sup>13</sup>(although still not high enough to qualify for compensation)?**

Dosimetry means measure of dose. It is the Department's intention that the dose measures that we will use will be as accurate as possible. In doing this work, we will be working closely with the veteran community concerned. It remains to be seen if our eventual dose estimates are more accurate than those used in previous health studies.

---

<sup>13</sup> Planet ark, 'US underestimated vets' radiation doses –study', 12 May 2003 (based on National Academies report)