

Australian Defence Force Health Services

Performance Audit

Tabled 27 May 1997

Audit Report No. 34 1996-97

Abbreviations / Glossary

ADF	Australian Defence Force
AIHW	Australian Institute of Health and Welfare
AME	Aeromedical Evacuation
ANAO	Australian National Audit Office
ASA	Australian Support Area
CAMU	Canberra Area Medical Unit
CDF	Chief of the Defence Force
CDP	Central Dispensing Point
CGS	Chief of the General Staff
COSC	Chiefs of Staff Committee
CSIRO	Commonwealth Scientific and Industrial Research Organisation
CSP	Commercial Support Program
DCGS	Deputy Chief of the General Staff
Defence	Department of Defence

DEFMIS	Defence Financial Management Information System
DEPHADS	Defence Pharmacy Dispensing and Stock Management System
DGAHS	Director-General Army Health Services
endodontics	dental root canal treatment
FSPPC	Force Structure Policy and Programming Committee
HIC	Health Insurance Commission
HPD	Health Policy Directive
HQADF	Headquarters Australian Defence Force
HRD	Hospital and Regimental Aid Post Database
HSRP	Health Systems Redevelopment Project
MBS	Medicare Benefits Schedule
MCS	Military Compensation Scheme
MRU	Members Required in Uniform analysis
NCO	Non-commissioned Officer
O/R	Other Ranks
OHS	Occupational Health and Safety
orthodontics	dental treatment for correction of irregularities in teeth and jaws

OSGADF	Office of the Surgeon General Australian Defence Force
OTC	over the counter
OVR	Operational Viability Resources
periodontics	dental gum treatment
prosthodontics	dental implant treatment
RAAF	Royal Australian Air Force
RAP	Regimental Aid Post
SDSS	Standard Defence Supply System
SGADF	Surgeon General Australian Defence Force
SRC	Safety Rehabilitation and Compensation
TAWP	Therapeutic Advisory Working Party
VCDF	Vice Chief of the Defence Force

Summary

1. The primary objectives of ADF health services are to maintain military personnel at required standards of health and fitness and to provide deployable medical services in support of military operations. At the time of audit the ADF had 2576 health services personnel in the Regular forces and 2167 in the active Reserves. The ANAO conservatively estimated the total cost of operating ADF health services to be about \$400m a year (refer Appendix 1). This represents an average cost per serving member of \$6800 a year.
2. Defence advised the ANAO that the principal reason for the ADF maintaining its own health facilities (such as hospitals) is to provide a training base for ADF personnel (particularly medical assistants). The provision of an in-house health service gainfully employs military personnel in peacetime, helps to maintain their skills and provides respite postings for health providers from their operational

duties. However, Defence views the operation of its health services in peacetime as complementary to the primary role of the military health services, arguing that its operational medical units will always represent an opportunity cost in peacetime in order to satisfy preparedness requirements. The value of health service facilities is in the vicinity of \$215m.

3. In October 1996 a Defence Efficiency Review (DER) was initiated by the Minister for Defence focusing on Defence management and financial practices. The ANAO provided advice to the Review teams and made the preliminary findings and conclusions from the audit of ADF health services available to Defence in January 1997. The DER report was published in April 1997. Some of the DER recommendations mirror those developed by the ANAO. However, broadly speaking, the thrust of both reviews is similar.

Audit objective and criteria

4. The objective of the audit was to assess the efficiency and effectiveness of the provision of health services to the ADF Regular forces. Audit criteria were developed which examined health services policy and strategic planning, resource management, the tri-Service provision of medical, dental and other health care, the operation of and planning for major medical facilities, health care management information systems, occupational health and safety and the supply of health materiel.

Overall audit conclusion

5. The ANAO found that the ADF provides high-quality health services to its members with a strong emphasis on preventive health care. ADF health services have demonstrated the ability to provide effective health support to military operations, in particular through the deployments to Rwanda on behalf of the United Nations.

6. Current health service administrative structures are complex and fragmented and lead to inefficiencies and inequities in the provision of health services. The division of responsibility among various Service commands has led to different priorities being adopted for the allocation of resources and to the duplication of services. A more effective management of health services could be achieved if these structures were rationalised and placed under centralised command and control.

7. The costs associated with ADF health care are significant and there is considerable scope for Defence to improve the efficiency and effectiveness of service delivery. The audit identified the need for further development of common ADF policy, scope for improvement in corporate planning, underutilisation of health facilities, inadequacies in financial and health information systems and the high cost of ADF workplace injuries and illnesses.

Key findings

8. The Australian Institute of Health and Welfare (AIHW) noted, in its 1996 biennial health report, that Australian governments and individuals spent an

average of \$2066 per capita on health care in 1993-94. Application of AIHW price indices to this figure provides an estimate of \$2192 for 1995-96. As the AIHW expenditure figures exclude the costs of health personnel in training, a similar amendment to the ANAO costing of ADF health services results in a cost per member of about \$6540, almost three times the Australian average. Important insights could be obtained through an examination of the significant difference between the costs of ADF and civilian health care.

9. Although the major factors contributing to the larger per capita expenditure by Defence are not able to be quantified, they have been identified as:

- the cost of maintaining an operational military health capability;
- provision of a high standard of health care at no cost to the member;
- high injury rates in ADF employment; and
- inefficiencies in ADF health care provision.

10. The ANAO accepts that Defence needs to maintain a military health capability but also considers that the performance of the health services in fulfilling their primary role of supporting the preparedness of the ADF should be measured and regularly monitored. Having determined that it will operate military health facilities in peacetime, it is also incumbent upon Defence to ensure that those facilities are operated in the most efficient and effective manner possible. The various alternatives for the delivery of peacetime health care to members should be evaluated from a cost/benefit perspective. It is not apparent that the Office of the Surgeon General Australian Defence Force (OSGADF) has centrally monitored the performance and cost-effectiveness of health services.

11. The major issues detailed in the audit report which require Defence attention are summarised below:

Chapter 2 - Policy, Resourcing and Corporate Planning

- Defence should establish the essential level of health services required to support deployed operational forces and whether any existing services could be regarded as discretionary in nature and, if so, the extent to which members might be required to contribute towards their cost.
- There is the potential for achieving economies in the provision of non-operational services through rationalisation or commercial support.
- Higher priority should be given to the development and implementation of common ADF policy, standards and processes.
- The OSGADF corporate plan requires updating so that it provides clear guidance for future action and development of meaningful performance indicators.

Chapter 3 - Organisation and Staffing

- There is considerable fragmentation in the ADF health services lines of control. The Surgeon General is responsible for technical control over health services but direct command is spread over six commands in the three Services. Tri-service cooperation has been identified by Defence as a significant problem in the delivery of health services. Current arrangements could be rationalised to achieve better outcomes.
- The ADF would benefit by developing coordinated strategies and appropriate service conditions packages to encourage medical officers to join the permanent forces.
- Defence should establish a mechanism within the OSGADF with the authority to coordinate human sciences research and to provide advice on priorities for the allocation of resources to this research.

Chapter 4 - Facilities Planning and Utilisation

- ADF health facilities are generally operating at well below full capacity and hence are not being operated in a cost-effective manner. The situation could be markedly improved by the rationalisation of ADF hospitals and medical centres.
- There are clear indications that, if the health services are to be effective in providing operational support, ADF staff need more experience in dealing with trauma cases by working in public hospital casualty areas.
- The ANAO considers that an opportunity exists to achieve economies through either the contracting out of a substantial proportion of pathology services or the development of a central ADF reference laboratory.

Chapter 5 - Financial Administration

- Defence does not monitor and control all expenditure on health services. There is very little health services costing information available and the ADF cannot identify the full cost of operating its health services and facilities. As a result, it is unable to make fully informed decisions concerning the most efficient method of delivering health care.
- Current levels of cost recovery of ADF health services provided to the civilian community could be extended. The range of services being provided should be examined to determine the extent to which costs should be recovered.

Chapter 6 - Health Information Systems

- Current ADF health care information systems are generally inefficient, unresponsive and fail to capture and report the required level of management information. This inadequate information base has severe implications for the management of ADF health services, including the ability to support effective planning, policy development and resource utilisation. A high priority should be accorded to the development and implementation of effective ADF-wide health information systems.

- The Health Systems Redevelopment Project, a system with the potential to solve many of these difficulties, has been under way for some seven years but is still at an early stage of development. Options for accelerating the implementation of an electronic patient record with outpatient, inpatient, dental and financial management sub-systems should be examined as early as possible.

Chapter 7 - Occupational Health and Safety

- In 1995-96 the recorded cost of claims under the Military Compensation Scheme was \$70m. Other costs to the Commonwealth from injuries to ADF members include lost work time, training replacement personnel, medical treatment and superannuation payments made to members medically discharged. The total cost of these injuries to the Commonwealth is not known but was estimated by the ANAO, based on various assumptions, to range from \$210m to \$840m in 1995-96. The ANAO considers that Defence should establish the full costs of ADF workplace injuries and illnesses in order to determine the cost effectiveness of any actions being taken.
- A study of injuries in the Australian Army between 1987 and 1992 revealed that 68% of male and 85% of female discharges on medical grounds occurred in the first year of service. As a large proportion of members medically discharged are entitled to invalid pensions, and at a very young age, this represents a significant currently unfunded liability which is not reflected in the ADF budget. Defence needs to give greater attention to epidemiological research into injuries and illnesses in the ADF and to develop both short and long term strategies aimed at reducing the level of injuries and illnesses.

Chapter 8 - Dental Services

- Although the ADF has a higher ratio of dental professionals to dependent population than the Australian community, the ADF is not meeting its own performance requirements for dental fitness levels.
- The annual cost of operating the ADF dental services has been estimated by the ANAO to be around \$61m. The ANAO calculated a cost of \$113 per person for the Australian community in 1995-96, based on AIHW data. An equivalent calculation for ADF dental services resulted in a cost per member of about \$987, over eight times the Australian average.
- Defence should review ADF dental services, particularly in regard to work practices, the number of dental personnel and the standard of treatment given, with a view to increasing their cost-effectiveness.

Chapter 9 - Health Materiel

- There is scope for rationalising the wide range of therapeutic substances available in the ADF to ensure that only the most cost-effective items are being used.

- A review of arrangements for dispensing and issuing pharmaceuticals, including the number of uniformed and civilian pharmacists, would help to ensure that safety and legal requirements are being observed.
- DEPHADS has proved to be a successful pharmaceutical information system but it requires ongoing software support and enhancement, as well as further training of user pharmacists. Its capabilities would be more fully utilised if it was networked and able to produce relevant information for senior ADF management, rather than unit level data only.

Potential audit impact

12. Implementation of the audit recommendations would result in a rationalisation of ADF health care services and administrative arrangements, a reduction in injuries and their associated costs, improvements in financial control and greater efficiencies and equity in the delivery of health care. Defence has not yet developed appropriate performance indicators and management information systems necessary to measure the efficiency and effectiveness of its health care delivery. The lack of readily available performance information precluded the quantification of any savings which may result from the audit recommendations, but even a five percent improvement in the efficiency of health care delivery would yield annual savings of approximately \$20m. The recent Defence Efficiency Review identified potential savings of \$23m per annum in Defence health services. ¹

Departmental response

13. Defence supported the overall thrust of the report and agreed to all but one of the recommendations, noting that this recommendation would require a comprehensive study before a response could be given.

Recommendations

Set out below are the ANAO's recommendations with report paragraph references and an indication of the Defence response. More detailed Defence responses and any ANAO comments are shown in the body of the report. The ANAO considers that Defence should give priority to Recommendations 1, 3, 5, 6, 9, 10, 11, 12, 14, 15, 16, 17. Priority recommendations are indicated below with an asterisk.

Recommendation * No. 1 Para. 2.27	The ANAO recommends that Defence establish the minimum level of health services resources essential to meet military operational requirements and then assess the scope for achieving economies in the provision of non-operational services through other means such as rationalisation or commercial support.
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Defence Response

Agree.

Recommendation No. 2	The ANAO recommends that Defence assess the merits and
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Para. 2.29	<p>possible implications of a member contribution for any health services additional to those required for the maintenance of individual readiness or that are outside the ADF's duty of care to its employees.</p> <p>Defence Response</p> <p>This is a substantial departmental policy issue which will require a comprehensive study by the Department before a response can be given.</p>
<p>Recommendation * No. 3 Para. 2.35</p>	<p>The ANAO recommends that Defence give a higher priority to the development and implementation of common standards and processes associated with ADF health care as a means of delivering a more uniform quality of care to all ADF members.</p> <p>Defence Response</p> <p>Agree.</p>
<p>Recommendation No. 4 Para. 2.43</p>	<p>The ANAO recommends that, wherever possible in the health policy development process, Defence undertake full consultation with relevant parties and consider full costs and funding implications.</p> <p>Defence Response</p> <p>Agree.</p>
<p>Recommendation * No. 5 Para. 2.50</p>	<p>The ANAO recommends that the Surgeon General update the OSGADF corporate plan with clear guidance for future action and develop performance indicators which provide meaningful measures of outcomes achieved in relation to the stated objectives.</p> <p>Defence Response</p> <p>Agree.</p>
<p>Recommendation * No. 6 Para. 3.18</p>	<p>The ANAO recommends that the Surgeon General be given responsibility for the command and control of all ADF health resources, that appropriate human and financial resourcing be transferred to the OSGADF and that formal agreements be developed with operational commanders in relation to the provision of resources for operational purposes.</p> <p>Defence Response</p> <p>Agree.</p>

Recommendation
No. 7
Para. 3.26

The ANAO recommends that, in conjunction with any recommendations flowing from the review of Attraction and Retention of Medical and Dental Officers, Defence examine the present medical officer structure with a view to providing more flexibility, including the employment of specialist medical officers, promotions for general practice clinicians and the streaming of medical officers into either clinical or administrative posts.

Defence Response

Agree.

Recommendation
No. 8
Para. 3.32

The ANAO recommends that Defence establish a mechanism within the OSGADF with the authority to coordinate human sciences research within Defence and to provide advice on priorities for the allocation of resources to this research.

Defence Response

Agree.

Recommendation *
No. 9
Para. 4.23

The ANAO recommends that Defence:

- a) undertake a detailed costing of all ADF hospitals and medical centres; and
- b) rationalise the provision of these beds where their costs exceed the costs of beds in equivalent civilian facilities and their retention cannot be justified on preparedness and operational grounds.

Defence Response

Agree.

Recommendation *
No. 10
Para. 4.35

The ANAO recommends that Defence make determined efforts to reach agreement with the necessary civilian health authorities for ADF personnel to work in areas where they will be exposed to emergency treatment of wounds and injuries and that a uniform ADF policy be developed.

Defence Response

Agree.

Recommendation *
No. 11
Para. 4.44

The ANAO recommends that the Surgeon General examine the costs and benefits of either contracting out pathology services or centralising the conduct of all routine pathology screening in an existing ADF laboratory.

Defence Response

Agree.

Recommendation *
No. 12
Para. 5.15

The ANAO recommends that Defence develop systems to monitor and control all expenditure on health services and that up-to-date information on the full costs of providing health services be maintained.

Defence Response

Agree.

Recommendation
No. 13
Para. 5.28

The ANAO recommends that Defence examine the health services provided to the civilian community by the ADF in order to determine those circumstances in which costs should be recovered and develop and implement effective cost recovery procedures.

Defence Response

Agree.

Recommendation *
No. 14
Para. 6.22

The ANAO recommends that Defence accord a high priority to the development of effective ADF-wide health information systems, and examine options for accelerating the implementation of an electronic patient record with outpatient, inpatient, dental and financial management sub- systems (see also Recommendation No. 12).

Defence Response

Agree.

Recommendation *
No. 15
Para. 7.29

The ANAO recommends that Defence:

- a) give greater attention to epidemiological research into injuries and illnesses in the ADF;
- b) develop both short and long term strategies aimed at reducing the level of injuries and illnesses; and
- c) identify all costs associated with compensable injuries and illnesses in the ADF, and put in place arrangements for these to be the budget responsibility of the relevant sub program managers.

Defence Response

Agree.

Recommendation *
No. 16
Para. 8.21

The ANAO recommends that Defence review ADF dental services, particularly in regard to work practices, the number of dental personnel and the standard of treatment given, with a view to increasing the cost-effectiveness of dental services.

Defence Response

Agree.

Recommendation *
No. 17
Para. 9.7

The ANAO recommends that the Surgeon General conduct a comprehensive review of the availability and usage of therapeutic substances in the ADF.

Defence Response

Agree.

Recommendation
No. 18
Para. 9.16

The ANAO recommends that Defence review the present arrangements for the dispensing and issuing of pharmaceuticals, including the number of uniformed and civilian pharmacists, with a view to ensuring that safety and legal requirements are being met in a cost-effective manner.

Defence Response

Agree.

Recommendation
No. 19
Para. 9.34

The ANAO recommends that HQ Logistics Command, in consultation with the Surgeon General, enter into negotiations with the prime vendor to amend the standing offer contract to:

- a) ensure that sufficient stocks are held to cover historical monthly usage;
- b) minimise the risk of more expensive items being supplied as alternatives to generic brand items; and
- c) develop more demanding performance measures with the aim of minimising costs to Defence.

Defence Response

Agree.

March 1997 and associated volume *Future Directions for the Management of Australia's Defence - Addendum to the Report of the Defence Efficiency Review - Secretariat Papers*, page 278 (both published by Directorate of Publishing and Visual Communications - Defence Centre Canberra).



1. Introduction

This chapter provides background information on ADF health service delivery and the Office of the Surgeon General, defines operational and non-operational health support, and details the audit objective, criteria and focus.

ADF health services

1.1 An essential component of ADF preparedness for military operations is the capability of individual members to be deployed on operations within a short period of time. They must also be able to perform their duties in a variety of situations where they may be exposed to arduous physical and mental stresses for extended periods of time. Consequently members must achieve and maintain a high standard of physical fitness and be free from any illness or disability that would prevent them from performing effectively under operational conditions.

1.2 The Chiefs of the three armed Services have issued directives detailing the medical and physical fitness standards that must be achieved by individual members to ensure that they are able to carry out their specialist occupational functions as well as general military duties. Because members may be deployed at short notice it is necessary that these standards be maintained at all times. Ultimately, the effectiveness of the ADF is dependent on the availability of sufficient numbers of physically and medically fit members to carry out their assigned tasks. The central role of the ADF health services is to maximise the availability of these members. Chart 1 outlines the major ADF health service capabilities.

1.3 The conditions governing the provision of health care to members of the ADF are set out in Defence Instruction (General) Personnel 16-1. This instruction states that the ADF is required to provide such medical and dental treatment and other health services as is deemed necessary by the Chief of the Defence Force (CDF) on the advice of the Surgeon General Australian Defence Force (SGADF).

1.4 The Instruction defines health as a state of physical, mental and social well-being compatible with continued service in the ADF and not merely the absence of disease or infirmity. Medical and dental treatments are defined as:

- professional advice or treatment by a qualified medical or dental practitioner or by ancillary health providers approved by SGADF or a Service Director-General Health Services;
- provision of therapeutic substances, biological preparations, surgical, dental and prosthetic supplies, apparatus or equipment;
- provision of ambulance services; and
- medical management and accommodation of ADF patients in a hospital, convalescent centre or other health care facility.

1.5 Reserve members are entitled to the same treatments as Regular members only when they are engaged on continuous full-time duty or when emergency care is required during other Reserve service.

Office of the Surgeon General

1.6 The position of Surgeon General was established in October 1986. The role of the Office of the Surgeon General Australian Defence Force (OSGADF) was expanded in December 1993, when responsibility for technical control of ADF health service assets was transferred to the Surgeon General. Technical control is

the specialised or professional guidance and direction exercised by an authority in technical or professional matters. At the time of the transfer a number of single Service health positions were abolished and others were transferred to the Office of the Surgeon General. Three branches were established in the OSGADF, each to be headed by the senior health position from the single Service Offices. These positions retained responsibility for providing technical advice to their respective Service Chiefs of Staff on single Service health matters while being responsible to the Surgeon General for ADF functions.

1.7 At that time, a Directive was issued by the CDF charging the Surgeon General with responsibilities for health policy for the ADF and the provision of health advice to the Secretary of the Department, Vice Chief of the Defence Force (VCDF) and the Service Chiefs of Staff. A separate Directive issued by the CDF and the Secretary gave the Surgeon General responsibility for performing the duties assigned to them as employers under the *Occupational Health and Safety (Commonwealth Employment) Act 1991*.

1.8 The Surgeon General is directly responsible to the CDF for the technical control of health services, technical training policy, doctrine, policy for health records and information systems, and preparing health service aspects of operational and supporting plans. Each Service Chief of Staff has command and control of the Service's health resources. The Surgeon General is also responsible for directing and coordinating the health intelligence function, health research and health service support for mobilisation, natural disasters, aid to the civil power and Defence Cooperation Programs. Other responsibilities include advising on the priorities, requirements and standards for fixed health facilities, health services aspects of materiel selection and priorities for the allocation of health services materiel. The Surgeon General is responsible to the CDF and Secretary in relation to the development of policy on occupational health and safety and the development of OHS monitoring, notification and reporting systems.

Health support for military operations

1.9 Health support for operations in the ADF is broken into five levels:

- Level One. The location and removal from danger of casualties and the provision of immediate first aid. It may include treatment by trained medical assistants such as restoration of airway, use of intravenous fluids, antibiotics and application of splints and bandages. This level does not require the presence of a medical practitioner.
- Level Two. The collection, sorting, stabilisation, treatment and evacuation of casualties and provision of resuscitative procedures where appropriate. It is provided at a minimum care facility which can include basic laboratory, pharmacy and temporary holding facilities. Medical practitioners are required for the provision of this level of medical support; surgical support is not normally provided.

- Level Three. Initial wound surgery is performed and hospitalisation provided for medium and high intensity nursing of the wounded, sick and injured. Facilities are staffed and equipped to provide resuscitation, initial surgery and post-operative treatment. Both medical practitioners and surgeons are required for the provision of this level of medical support.
- Level Four. Specialised surgery, rehabilitation and hospitalisation are provided within the limits of the holding policy. This level of support is provided in the main by the civilian community and requires both medical practitioners and surgeons.
- Level Five. This level of care is provided by the civilian community and includes specialised and sophisticated management and care associated with the most advanced range of medical capabilities.

1.10 The activities fundamental to ADF operations can be summarised as Levels One to Three health support to forces deployed on operations, augmented as necessary by specialist support from Level Four organisations, together with an aeromedical evacuation (AME) capability. Air Force provides strategic and tactical AME. Army and, to a lesser extent, Navy and Air Force provide forward AME.

Non-operational health support

1.11 The health support outlined above applies to military operations but, during peacetime, the bulk of ADF health service resources are aimed at maintaining individual readiness. Health service facilities in the support area fall into three major categories:

- Outpatient facilities. Such facilities are called Regimental Aid Posts, Sick Bays or Medical Sections and provide medical treatment on an outpatient basis with only limited services available outside normal working hours. A limited number of day beds may be provided for observation of patients during normal working hours but not for overnight stay.
- Sick quarters. Sick quarters are also known as Medical Centres, Camp Hospitals or Base Medical Flights. These facilities incorporate outpatient and bedded overnight accommodation for the treatment, nursing and rehabilitation of minor sick and injured, and those requiring low dependency bed care. Some sick quarters are equipped with surgical facilities and intensive care beds and will perform operations but this depends on the availability of appropriate surgeons and operating theatre staff. In most cases dental facilities are adjacent to, or are part of, the sick quarters facility.
- Hospitals. Service hospitals provide definitive care and inpatient management for minor and major injuries and illnesses. More staff intensive than sick quarters, they also provide outpatient services to the surrounding Service population and normally a 24 hour casualty and ambulance service. They are equipped with operating theatre facilities and have trained theatre staff.

1.12 Most major bases have a well equipped sick quarter providing general

practitioner care and a range of specialist and ancillary services. Smaller bases have an outpatient facility, sometimes with only a part-time medical practitioner. The ANAO estimated the value of health service facilities to be around \$215m.

Reviews of health services

1.13 At the time of the audit a number of internal reviews were being conducted that are likely to impact directly on the delivery of health services within the ADF. The principal reviews identified by the ANAO are outlined at Appendix 2.

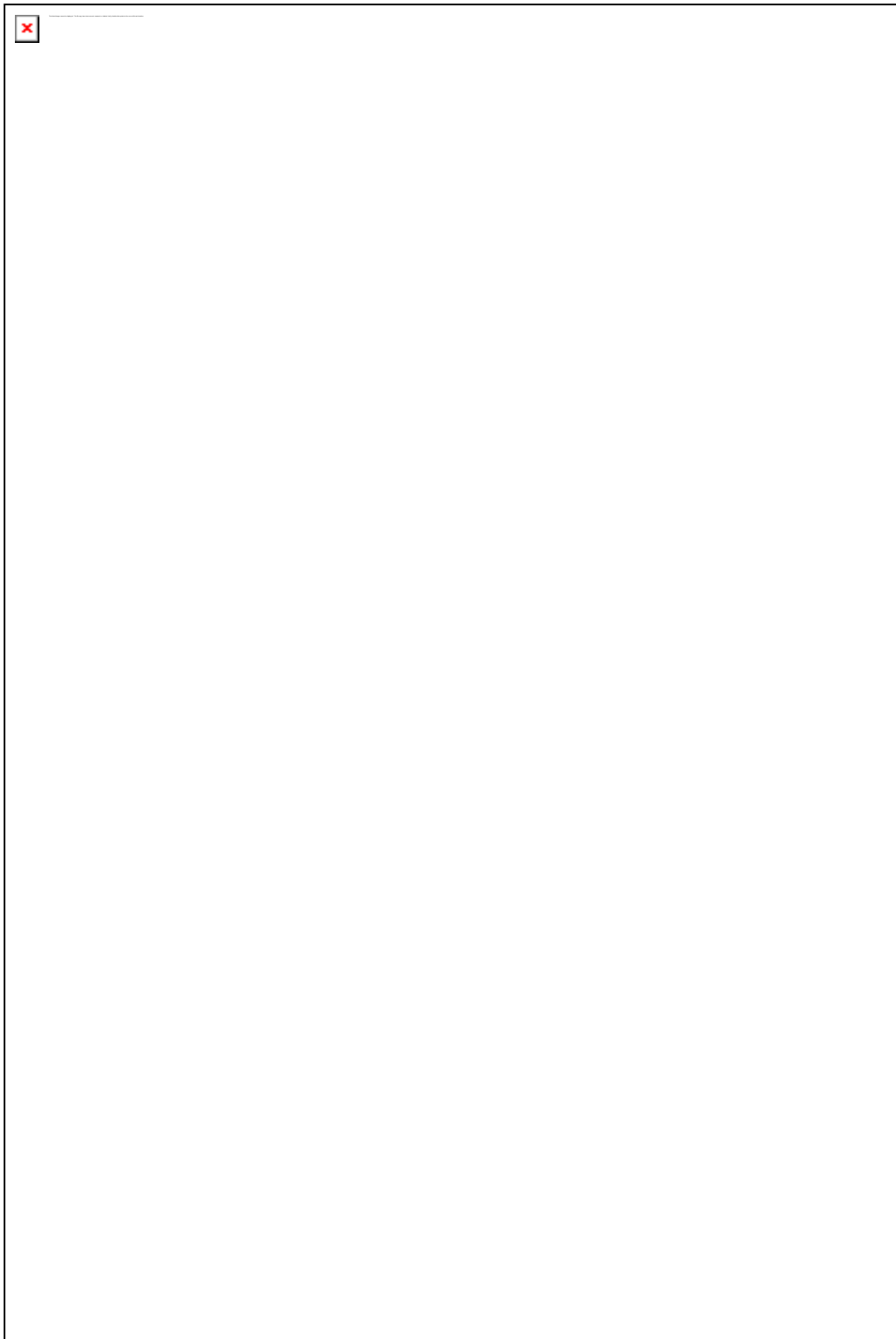
1.14 The ANAO notes the number of internal reviews examining the core functions of ADF health services. Apart from the costs of the various reviews it is evident that they generate a significant workload for health services staff by making requests for data and information, much of which will be similar in content but often required in a different format. This can extensively divert staff from their prime functions. Wherever possible the ANAO attempted to avoid unnecessary overlap or duplication with these reviews; for example, coverage of staff recruitment and retention was reduced because of an existing Defence review. The ANAO considers that resources could have been used more effectively by forming a single review with terms of reference encompassing all ongoing reviews and containing appropriate membership.

1.15 A significant external review, the Defence Efficiency Review, was established by the Minister for Defence under the chairmanship of Dr Malcolm McIntosh, in October 1996. The Review was to make recommendations for reforming Defence management and financial processes. It drew inter alia on reviews and reports available in Defence and on advice from external advisers. The ANAO provided advice to the Review teams and made the preliminary findings and conclusions from the audit of ADF health services available to Defence in January 1997. The Report of the Defence Efficiency Review was published in April 1997.² In respect of medical services it recommended that 'Medical services need to be pulled together and rationalised, taking account of community expectations and civil arrangements' (Rec. 48). The Addendum to the Report provided further, advisory recommendations in respect of medical services consistent with the ANAO's recommendations in this audit report. The Minister, when releasing the report, announced that a Defence Reform Program based on the main findings and recommendations of the Review would be implemented as quickly as possible³.

Audit objective, criteria and focus

1.16 The objective of the audit was to assess the efficiency and administrative effectiveness of the provision of health services to ADF full-time members (comprising Regular and Ready Reserve forces). Audit criteria were developed which examined the ADF's health services policy and strategic planning, resource management, the tri-Service provision of medical, dental and other health care, the operation of and planning for major medical facilities, health care management information systems, occupational health and safety and health materiel. Chart 2 shows the audit framework used in the analysis of ADF health services.

1.17 The primary focus of the audit was on the peacetime support activities of ADF health services (e.g. clinical treatment) as this area consumes the major part of the resources expended. This focus also enabled a comparison to be made with health costs of the Australian community. It needs to be acknowledged, however, that the primary purpose for maintaining this peacetime capability is to ensure the availability of well trained and equipped health services for preparedness purposes. This entails the development of doctrine, plans and procedures and readiness training essential to the health support for the ADF.



1.18 The health services audit has covered, by necessity, a wide range of activities within the three Services and at Headquarters ADF and involved extensive discussions and review of documents in Defence. Material on the structure and practices of overseas defence forces health services was gathered for comparative purposes. The audit has traced the processes for the provision of health care from the OSGADF in HQADF through the Service command structures down to the unit level. Information was gathered from a variety of sources within Defence, including the OSGADF, Maritime and Naval Support Commands, Army

Training, Land and Logistic Commands, Air Command, Air Force Training Command, operational headquarters and units, hospitals and medical centres. Fieldwork was undertaken at Defence facilities in Canberra, Sydney, Melbourne, Adelaide, Brisbane, Darwin, Townsville, Wagga Wagga, Albury-Wodonga and Singleton.

1.19 Audit matters were discussed with Defence throughout the audit. A paper consolidating the findings from the audit was developed and discussed with Defence in January 1997. Defence has already initiated action to implement recommendations from the audit.

1.20 A consultant, Mr Brian Boland PSM, was engaged to help in the analysis of medical and dental data and in the review of ADF health service management structures. The audit fieldwork was substantively conducted over the period August to October 1996. The audit was conducted in conformance with ANAO Auditing Standards and cost \$395 000.

2. Policy, Resourcing and Corporate Planning

This chapter details the range of health care services provided, current resourcing levels, the development of common ADF health policy, the resource implications of policy development and corporate health planning. The audit identified the policy basis for the extensive range of services provided, the high cost associated with health care, the need for further development of common ADF policy and the scope for improvement in corporate planning.

Range of health care services provided

2.1 The following paragraphs outline the policy basis for the provision of ADF health care and the range of services provided. A comparison is then made with the health care provided in the civilian community.

2.2 Historically, the ADF has provided a full range of health services to its permanent serving members (including Reserves when undertaking full-time service or training). The 1994 Defence White Paper, *Defending Australia*, stated that 'Defence must ensure that its people are fully fit for operational duties and can be treated promptly if they are wounded or injured'. There are two elements to this requirement: maintaining the health and fitness of members and supporting forces deployed on operations with the aim of reducing the time between wounding and treatment, as this is directly related to lower mortality and morbidity rates.

2.3 The objectives of the health care policy, set out in Defence Instruction (General) Personnel 16-1, are to:

(a) detect, cure, remove, prevent or reduce the likelihood of disease or infirmity which:

(1) affects or is likely to affect the efficiency of the member in the performance of his or her duties; or

(2) endangers the health of any other member;

(b) restore the member, so far as practicable, to optimal health in the ADF context;
and

(c) assist to rehabilitate the member for civil life.

2.4 Although the Instruction contains an element of discretion by using the term 'provide ... treatment ... as deemed necessary by the CDF', a literal reading of the objectives and particularly the phrase, 'optimal health in the ADF context', indicates that the ADF will provide an almost unlimited range of the highest level of health care. Also recruitment brochures indicate that the ADF will provide free total medical and dental care. Given the above constraints there appears to be little scope to achieve economies by reducing the nature and extent of health services currently provided to ADF members. These services include medical and hospital services comparable to those available under Medicare, and dental, optical, physiotherapy and physical training, pharmaceutical and medical supplies and ambulance services.

2.5 As outlined in the following paragraphs ADF health services cover a wide variety of health areas. The ADF provides an extensive screening and vaccination program in order to maintain the overall fitness and deployability of Service personnel. The nature of the vaccinations depends on the location of the deployment. Families accompanying members on overseas postings also receive appropriate vaccinations.

2.6 The ADF has pursued environmental health and preventive medicine activities with a focus on occupational health and safety, hygiene, quarantine, sanitation and disease control. The emphasis of preventive medicine in Army and Navy is primarily operational in nature, and in Air Force attention is given to health promotion matters. Air Force provides a drug and alcohol rehabilitation service to which members from other Services may be referred for treatment. Although not strictly related to defence preparedness, the provision of such a service could be seen as appropriate for a responsible employer and a means of conserving resources if the member can be rehabilitated.

2.7 The ADF has three medical research units. The Navy School of Underwater Medicine provides advice and care for divers and submariners and also undertakes research into the medical aspects of diving and the underwater environment. Army operates the Malaria Research Institute, which provides training, research and advice on the disease. Air Force's Institute of Aviation Medicine provides training in aviation medicine, but about half of its resources are applied to research and development.

2.8 In the civilian community the Australian Medicare Program provides access to a wide range of medical and hospital services. The Medicare system can be considered to provide a benchmark for medical and hospital treatment to members of the ADF. Most Australian taxpayers contribute to the cost of health care through payment of the Medicare levy, but members of the ADF are

generally exempt from the levy given the availability of free ADF health care. Given the levy exemption and the fact that the ADF requires complete personnel medical records, the ADF discourages its members from using the Medicare system. The exemption of permanent serving members from the Medicare levy and the discouragement of members from using Medicare imply that the ADF accepts responsibility for providing the range of medical services covered by Medicare.

2.9 Some of the conditions treated by the ADF would appear to be unrelated to health and fitness for military service; for example, vasectomy and assisted fertilisation. However, as these services are included in the Medicare Benefits Schedule it would be difficult for Defence to refuse to provide them where they do not exceed normal community standards. The alternative would be for members to seek such treatments using the Medicare system but this could establish a precedent for members accessing a wider range of Medicare services and lead to questions concerning the continued exemption of members from the Medicare levy. As a general principle, it would seem appropriate therefore for the ADF to provide its members with the same range of medical treatments as are available to the general community under Medicare. There may be scope to consider whether members should be required to make a contribution to the cost of expensive elective treatments that are not directly related to military service.

2.10 As a general rule the majority of the civilian population are required to meet the cost of their other health services such as dental care, optical aids and physiotherapy. Similarly, the cost of pharmaceuticals to the general community is only partially subsidised. In its 1996 biennial health report ⁴ the Australian Institute of Health and Welfare (AIHW) reported that less than 50% of recurrent expenditure on pharmaceuticals was funded by the Commonwealth. In receiving the full range of health services free of charge, ADF members enjoy a significant benefit in comparison with most other Australians. This is, in part, in recognition of the physically demanding nature of the duties required of Service personnel and a significant recruitment incentive.

Cost of health services

2.11 There are two distinct but closely interrelated elements underlying the provision of health services within the ADF. The prime element is the provision of health support to forces deployed on military operations. The OSGADF has given considerable attention to the development of doctrine and plans to cater for a variety of operational scenarios and to ensure that the available resources are trained and equipped to respond to operational demands. The second element is to maintain the health and fitness of all members of the ADF to ensure their readiness for operational deployments. During peacetime it is this latter element that absorbs most of the health services' resources.

2.12 The principal staff categories used to provide health services include medical practitioners, surgeons and other medical specialists, dentists, nurses, physiotherapists, medical assistants, pharmacists, radiographers, preventive/environmental health personnel, pathology scientific officers,

physical training instructors, psychologists and clerical support. Almost all medical specialists and physiotherapists are civilians and are engaged on a sessional, fee-for-service or contract basis. ADF health personnel recruitment and retention difficulties and the absence of uniformed health services staff on operations have led to the employment of a significant number of civilian medical practitioners, dentists, nurses and other ancillary medical staff on a contract or casual basis.

2.13 Table 1 sets out the number of ADF Regular and active Reserve health personnel as at November 1996 and includes 171 personnel in training and post graduate studies:

Table 1. Health Services Personnel

		Navy		Army		Air Force		Total ADF	
Category		Reg.	Res.	Reg.	Res.	Reg.	Res.	Reg.	Res.
Medical	Officers	59	45	73	212	75	125	207	382
	Other ranks	221	21	663	939	142	25	1026	985
Nursing	Officers	31	23	93	121	91	37	215	181
Dental	Officers	35	12	41	53	59	31	135	96
	Other ranks	62	0	166	42	93	7	321	49
Other	Officers	20	4	169	206	40	22	229	232
	Other ranks	77	5	257	231	109	6	443	242
Total	Officers	145	84	376	592	265	215	786	891
	Other ranks	360	26	1086	1212	344	38	1790	1276
Total Regular / Reserve		505	110	1462	1804	609	253	2576	2167

Source: Department of Defence

Note: The 'Other Officers' category includes 48 psychologists. These personnel have a range of duties which include clinical health support.

2.14 The 2576 Regular health services personnel represent about 5% of total ADF Regular personnel numbers. The ANAO used the Defence Ready Reckoner of Personnel Costs to calculate the full recovery cost of these staffing resources. Based on these figures, the total cost of Regular ADF health staff in 1995-96 was \$254m, comprising \$52m for Navy, \$137m for Army and \$65m for Air Force (refer Appendix 1). As the audit was focused on the Regular forces, Reserve force costs were excluded from the analysis.

2.15 The other major costs associated with health services are the engagement of external providers and the provision of treatment in public and private hospitals. Expenditure for those services totalled \$57m in 1995-96. Army is the single

Service logistics manager for medical and dental materiel (including pharmaceuticals) and in 1995-96 expenditure on this totalled \$20.6m. Other relevant costs, such as facilities operating costs and ambulance services, total around \$67m.

2.16 During the audit the ANAO undertook an analysis to determine the total cost of providing health services to ADF Regular forces. From the information available from within Defence at that time the ANAO estimated the cost to be around \$400m per year (refer Appendix 1). This represents an annual expenditure of some \$6800 per member. The ANAO considers this to be a conservative estimate of the cost of providing ADF health services. For example, subsequent to the ANAO analysis Navy derived a cost for the Naval Health Service in 1995-96 of about \$115m. The variation between the ANAO estimate of \$80.6m and the Navy costing results from the use by Navy of a new costing methodology known as the Activity Based Management Corporate Model.

2.17 The AIHW noted, in its 1996 biennial health report, that Australian governments and individuals spent an average of \$2066 per capita on health care in 1993-94. Application of AIHW price indices to this figure provides an estimate of \$2192 for 1995-96. As the AIHW expenditure figures exclude the costs of health personnel in training, a similar amendment to the ANAO costing of ADF health services results in a cost per member of about \$6540, almost three times the Australian average. The high cost of Defence health services is even more notable when it is recognised that all members must pass a searching medical examination prior to recruitment and most members are in an age group when they should be at peak health and fitness. Note that, unlike the AIHW figure, the ADF expenditure includes a component for military operational capability.

2.18 The total annual cost of Defence health services is about \$400m. As an indicative benchmark, however, the ANAO estimates that if Defence were to pay the Medicare levy and provide all ADF members with private health insurance with top hospital care and extras, the cost would be less than \$100m. In such a situation members would be required to contribute towards some elements of the cost of health care.

2.19 Factors that may contribute to the high cost of ADF health services include, the maintenance of an operational health capability, the wide range of services provided by health staff, underutilised facilities and the high standard of care provided at no charge to the member. Another aspect is that health care includes treatment and rehabilitation associated with compensable injuries and illnesses.

2.20 ADF information systems do not allow for a quantification of factors impacting on the cost of health services. It would, however, appear that the ADF is paying a premium of between two and three hundred million dollars a year to achieve a level of Defence preparedness and to provide a level of care to members that is in excess of community standards.

2.21 Defence contends that the comparison with community costs is invalid as much of the cost associated with health services relates to Defence preparedness

and the need to have well equipped and well trained health services personnel to support Australian forces in the event of armed conflict. In addition, the ADF is called on to provide aid to the civil community in emergencies and to assist the United Nations Organisation with humanitarian and peace-keeping missions. This latter point was demonstrated by the ADF deployments to Rwanda in 1994-95. It also considers that part of the higher cost of ADF health services can be attributed to the need for its members to maintain a higher standard of health and fitness than the general community. Defence noted that, in addition to clinical services, ADF health services provide operational support, training, medical materiel, facility planning and research, as well as a variety of non health services.

2.22 Defence views the activities of non-operational support as complementary to its main role of providing operational health support. In practice though, the major component of day-to-day health resource usage is associated with non-operational health support. The ANAO recognises the need for the ADF to maintain a peacetime health capability but, in view of the high costs identified above, it considers the options for the delivery of this health care should be fully evaluated from a cost/benefit perspective.

2.23 The ANAO appreciates that many of the costs associated with the provision of health services to the ADF are incurred because of the need to maintain Service members at a high state of individual readiness. This will, in some cases, lead to conditions being treated as a precautionary measure rather than risking the possibility of the condition requiring treatment during military operations. Also, many of the health services have a preventive element aimed at reducing the likelihood of illness or diseases. In addition, there is the important function of developing doctrine and plans for the possibility of conflict and ensuring that the available resources are trained and equipped for such a contingency.

2.24 It is difficult to establish precisely that element of health service costs associated with operational support and those costs associated with providing ongoing day-to-day care of personnel in peacetime. If all of the peacetime services were to be provided by the civilian community there would still need to be a core of uniformed members to support military operations in the event of a contingency. It is logical, therefore, to use these uniformed resources to provide non-operational health services during peacetime.

2.25 It is also important that Defence ensures that health care is provided in the most efficient and cost-effective manner. A key issue is whether the existing level of health services resources is essential to meet operational requirements. Once this level has been determined, it is then feasible to examine other options for the provision of non-operational health care. Such an examination could include consideration of the existing range of services and facilities, whether they are essential, the scope for rationalisation and whether they could be provided by other, more economical means. Where existing services are not essential for operational readiness it could then consider whether these services should still be provided or the extent to which members might be required to contribute towards their cost.

2.26 Other options that could be canvassed include the provision of private health insurance cover for members, and whether ADF personnel should receive medical and hospital treatment under Medicare arrangements. This latter possibility would also involve consideration of the present exemption from the Medicare levy.

Recommendation No.1

2.27 The ANAO recommends that Defence establish the minimum level of health services resources essential to meet military operational requirements and then assess the scope for achieving economies in the provision of non-operational services through other means such as rationalisation or commercial support.

Defence Response

2.28 Agree.

Recommendation No.2

2.29 The ANAO recommends that Defence assess the merits and possible implications of a member contribution for any health services additional to those required for the maintenance of individual readiness or that are outside the ADF's duty of care to its employees.

Defence Response

2.30 This is a substantial departmental policy issue which will require a comprehensive study by the Department before a response can be given.

Development of common ADF health policy

2.31 Health policy that has general application to the administration of the ADF, and not just the ADF health services, is promulgated in the form of either Defence Instructions (General) or Joint Service Publications. Health policy where application is generally restricted to the ADF health services is promulgated in the form of SGADF Health Policy Directives (HPD). Single Service amplification of such policy, if necessary, is in the form of Single Service Implementing Instructions issued with HPDs.

2.32 The first sentence of the vision statement contained in the Corporate Plan 1994-1998 for the OSGADF reads: 'To achieve our mission it is essential that the OSGADF continues to rationalise single Service health policies into common ADF health policy and develop the capability to define accurately the health status of the ADF at any point in time'.

2.33 The policy development emphasis in OSGADF has been on operational health doctrine and amendments have been made to a variety of ADF publications. There has been less attention given to non-operational areas and, consequently, less progress has been made in achieving common ADF health policies. The three single Services continue to have a comprehensive range of health instructions which provide the principal guidance to those Services in the

administration of health care. The ANAO found that although 49 HPDs had been issued since December 1993 only 15 dealt with medical issues, a further 18 referred to dental matters, 11 to nursing and 5 others. Although existing HPDs should be reviewed at three yearly intervals the ANAO was advised that this had not occurred, because of lack of resources.

2.34 Although there has been some progress in setting common ADF standards, particularly for dental, there is a range of basic health service issues where single Service policies continue to apply:

1) Physical fitness is an area where there is a lack of common ADF policy. In January 1996 an Army directive on individual readiness set out basic requirements in terms of physical, medical and dental fitness. Subsequently, in May 1996, Air Force issued a directive on fitness policy which dealt with medical and physical aspects. The ANAO noted that, although a draft Defence Instruction on ADF physical fitness was circulated by the OSGADF for comment in March 1996, lack of agreement by the single Services had prevented the issue of a common tri-Service policy.

2) Each Service maintains separate medical records. In association with the development of the automated Health Systems Redevelopment Project (HSRP), steps have been taken to introduce common medical records. At the time of the audit, an HPD on tri-Service medical documentation was being developed.

3) Differences exist between the Services in relation to the frequency of the assessment of members' medical fitness for service. For example, the basic requirement in Army is for a medical assessment every three years until the age of 35 and thereafter every year, and in Navy the requirement is for medical examinations every five years until 40 and thereafter every year. The form and content of the assessments also differ among the Services. Similarly the 1996 CGS Directive on Army Individual Readiness prescribed that Army personnel be dentally examined at least every two years but the other two Services require an annual examination.

4) There are indications that the quality of health care may vary between the Services as follows:

a) The ANAO was unable to identify any ADF-wide quality assurance processes.

b) Only one ADF hospital (Balmoral Naval Hospital) is fully accredited by the Australian Council on Healthcare Standards. Similarly, not all pathology laboratories are National Association of Testing Authorities accredited.

c) The ANAO also identified variations among and within the Services in the ratio of health providers to members; for example, most ships do not carry a doctor or dentist.

d) Air Force placed a greater emphasis on health promotion and preventive medicine than the other two Services. Also alcohol and drug rehabilitation receives more attention in Air Force, where it has been identified that 290 staff

years are lost each year due to alcohol and drug abuse. This indicates an area that is worthy of attention on a tri-Service basis.

e) Army has established a rehabilitation team at 2 Field Hospital in Brisbane to provide an integrated team approach to rehabilitating sick and injured members to productive work and social life. This approach appears to be resulting in a speedy return to duty or improved capability on return to the civilian community. The ANAO considers there is scope for a wider application of this integrated approach to rehabilitation in all three Services.

f) There also appears to be a need for the development of a tri-Service policy concerning the prescription of different types of drugs, especially the use of cheaper generic drugs in lieu of more expensive brand names.

g) Standardised policies in relation to referrals for diagnostic imaging and pathology tests do not exist and would also be beneficial. Currently, Defence is unable to monitor centrally the prescribing and referral patterns of doctors, including visiting specialists and civilian general practitioners.

h) Funding limitations and different approaches by the Services may lead to phased implementation of policies and result in different application of health services. This was particularly notable in the application of the revised assisted fertilisation policy.

Recommendation No.3

2.35 The ANAO recommends that Defence give a higher priority to the development and implementation of common standards and processes associated with ADF health care as a means of delivering a more uniform quality of care to all ADF members.

Defence Response

2.36 Agree. There are significant costs associated with implementing a quality care monitoring program and/or gaining accreditation. ANAO has given no guidance as to what it considers as an appropriate quality of care. Should Defence adopt civilian accreditation standards or seek civilian accreditation where possible? These are issues which this Office can undertake in consultation with other elements of the Defence organisation, but there are, as always, costs in accreditation and quality care standards and these will need to be addressed in terms of the future direction of the ADF and the focus on the way we will operate in war. It is disappointing that the ANAO Report has not indicated the extent to which common standards and processes already exist in the ADF health services compared to the rest of Defence. A significant number of important ADFPs have been issued reflecting the work in developing common policy.

ANAO Comment

2.37 In the report the ANAO recognises the progress that has been made towards the setting of common ADF health standards but suggests that there is a range of

outstanding issues that should be addressed.

Resource implications of policy development

2.38 It is not clear that the resource implications of policy advice concerning health services have always been fully considered. The ANAO was advised that the policy on assisted fertilisation was introduced without additional funds being provided. Assisted fertilisation is an expensive procedure that can be performed only by specialist facilities external to the ADF. The lack of supplementary funding posed difficulties for the Service Commands to approve requests for invitro fertilisation and resulted in significant dissatisfaction by members whose requests have had to be refused.

2.39 Similarly, the Commands expressed concern about the resource implications of recent policy advice concerning the prescription and administration of vaccines. This policy, which is consistent with legal requirements, states that vaccines shall not be dispensed or administered without the written order of a medical practitioner. It appears that not all ADF medical officers had been aware of the requirement and the issue of the policy has placed considerable additional demands upon medical officers.

2.40 Although the Defence Instruction (General) covering health care of ADF personnel states that the ADF is required to provide only emergency medical and dental treatment to Reserve forces while on duty, the Army Directive for individual readiness states that Reserve personnel are to be brought to Class 2 dental standard at Commonwealth expense. Once they reach this standard it is to be maintained at the member's own expense. It was estimated that the cost of providing this care to Reserve members would be in the vicinity of \$7.5m-9m. It is apparent from other documents that the extension of this policy to Reserves in the other Services had not been fully canvassed. Also the Army Directive is inconsistent with the Defence Instruction which limits the provision of health services to Reserves to emergency treatment except when on continuous full-time duty.

2.41 The decision to extend dental treatment to Reserves imposes a heavy resource demand on Army. In view of the resource implications of the new policy it may not be possible to implement the Army directive in the time-frame allowed. However, the decision to change the frequency of dental examinations to every two years may help to overcome the demands placed on Army dental resources.

2.42 The OSGADF possesses insufficient information about the cost of existing health services to be able to determine accurately the resource implications of many policy changes. For example it is unlikely that the OSGADF would be able to assess the cost of annual versus biennial dental examinations or the cost of standardising the frequency of medical examinations across the three Services. Also the ANAO found that policy changes are made without full consultation with the relevant parties responsible for their implementation. The ANAO considers it is essential that the OSGADF develop adequate processes to identify

the full costs of changes in the provision of health services and ensure that there is full consultation with appropriate funding authorities.

Recommendation No.4

2.43 The ANAO recommends that, wherever possible in the health policy development process, Defence undertake full consultation with relevant parties and consider full costs and funding implications.

Defence Response

2.44 Agree. The organisation did so with the introduction of policy relating to Hepatitis immunisation.

Corporate planning

2.45 The OSGADF produced its first corporate plan in 1994. The plan covered the period 1994-1998. In a foreword to the plan the then Surgeon General stated that it would be updated annually but there had been no updates at the time of the audit. The ANAO was advised of the intention to issue a new corporate plan in 1997. The plan was to provide a basis against which the OSGADF could measure its performance. It was intended that regular reports would be provided on the progress against stated objectives, but it did not appear that this had been done and the ANAO therefore requested a special report on such progress from the OSGADF during the audit.

2.46 The OSGADF mission in the corporate plan was 'to maximise combat capability by ensuring ADF personnel are fit to fight'. Seven goals, each with a series of related objectives, were developed to give effect to this mission. A range of strategies was designed to achieve these objectives together with performance indicators to measure the extent of achievement.

2.47 The ANAO observed that, although the OSGADF has been successful in achieving the first goal of facilitating ADF operational effectiveness, progress in other areas has been slow with only partial or limited achievement of many of the objectives. In many cases the slow progress was attributed to staff shortages. Set out below are ANAO comments on OSGADF achievement of the corporate plan goals, as identified in the special report:

- *Ensure health services support facilitates ADF operational effectiveness.* Generally, the operational objectives under this goal have been achieved, although some are ongoing. The major area of concern relates to the current inability of the OSGADF to identify the number of ADF personnel at medical and dental standards sufficient to enable deployment in accordance with readiness requirements. Such a measure would seem to be a fundamental requirement of health services. Also, it is not clear that the objective of ensuring that health training meets ADF operational requirements has been fully satisfied.

- *Enhance the health status of the ADF.* The achievements in relation to this goal indicate that only limited success has been achieved. Some progress has been made but there is still work to be done before the objectives are realised.
- *Promote a safe and healthy working environment for all Defence personnel.* Progress in the development of occupational health and safety policies has been slow due to staff shortages. The objective of reducing absenteeism attributable to preventable causes could not be measured but other indicators suggest it was not achieved. The development of an automated management information system for compensation and related matters is almost complete.
- *Communicate health matters within Defence and with external agencies.* Most of the objectives set for this goal have been achieved and improved avenues of communication have been developed.
- *Integrate health aspects of research and development into Defence capability.* During the course of the audit steps were being taken to provide guidance for research and development, but this had not yet led to a coordinated strategy for prioritising and directing research activities.
- *Achieve effective and efficient health information systems.* There have been some improvements in health information systems but delays have occurred in the development of the major health systems project and problems have arisen with the enhancement of other systems.
- *Ensure an efficient, effective and responsive OSGADF.* Resource limitations have been seen as the major contributing factor to only partial achievement of most of the objectives and strategies designed to meet this goal.

2.48 The ANAO endorses the principal goals and objectives contained in the OSGADF corporate plan. In general, the strategies designed to achieve the operational objectives are clear and precise and should promote effective activities. The strategies underpinning most of the other objectives are often more general in nature and as a consequence do not provide clear direction on the action to be taken. Some of the performance indicators provide a measurable target but in the majority of cases the indicators do not enable a clear assessment to be made of the extent to which the strategies have been successful. It is essential that management be able to monitor progress against stated objectives, which can be done only if the performance indicators are valid and meaningful.

2.49 The ANAO considers that the OSGADF corporate plan should be updated as soon as possible. In this process care needs to be taken to ensure that both strategies and performance indicators provide clear guidance for future action and that implementation of the proposed strategies can be measured in objective terms.

Recommendation No.5

2.50 The ANAO recommends that the Surgeon General update the OSGADF corporate plan with clear guidance for future action and develop performance indicators which provide meaningful measures of outcomes achieved in relation

to the stated objectives.

Defence Response

2.51 Agree. Performance measurement protocols and tools are required.



3. Organisation and Staffing

This chapter discusses the organisational arrangements for the Office of the Surgeon General and the single Services, medical officer staffing structures and human sciences research. The chapter highlights the need to rationalise the current fragmented administrative structures, the desirability of more flexible staffing structures and the benefits of increased coordination in the area of human sciences research.

3.1 As mentioned in the introduction to this report there are a number of reviews that could have implications for the organisational structures which deliver health services (refer Appendix 2). In addition, each Service is undertaking a study of its activities to determine the number of members required in uniform. The Army structure review could also result in extensive changes to health services structures. As these reviews had not been finalised when this report was prepared, this chapter refers to the organisational arrangements at the time of the audit.

3.2 The following paragraphs discuss the current health service structures in the context of past proposals to move towards tri-Service health care delivery. The ANAO then looked at some of the reasons for the slow progress towards the integration of health care services and concluded that an integrated health service was achievable and would solve the problems identified.

3.3 As outlined in Chart 3 and at Appendix 3, there is considerable complexity in the lines of control for health services in the ADF. Although the Surgeon General exercises technical control of all health services, direct command is spread over the three Services and six Commands. Individual health units are usually responsible to the commander of the combat unit or the base where they are located.

Movement towards a tri-Service structure

3.4 Since the 1960s there have been several proposals to rationalise and integrate the three separate health services. In 1969 a comprehensive review was initiated by the Minister for Defence and chaired by Major General Sir William Refshauge, Commonwealth Director-General of Health. The report recommended that the Services' medical directorates should be replaced by a single Defence Force Health Services Directorate headed by a Surgeon General. No action was taken in respect of this recommendation. In 1974 the Minister for Defence approved arrangements to establish Defence Force hospitals within the Repatriation General Hospitals at Concord and Heidelberg. The hospitals would be separate 'wings' of the Repatriation hospitals and be joint service hospitals under Service control with staffing by all three Services. This arrangement, together with a 1983 proposal to integrate Defence and Repatriation hospitals in Brisbane, did not proceed.

3.5 In the early 1990s it was also proposed that health services for ADF personnel in the inner Sydney area be provided by Navy. As a result of objections by Army the proposed integration in Sydney did not proceed.

3.6 In December 1991 the Chiefs of Staffs Committee (COSC) agreed that Army develop a medical assistants course to meet tri-Service training requirements. Tri-

Service training was commenced but was discontinued because of inter-Service differences. At the time of the audit a further attempt was being made to develop a tri-Service training program.

3.7 In the last decade there has been some progress towards the tri-Service delivery of health care with the establishment of the Surgeon General in 1986 and the integration of the single Service health Offices into the OSGADF and moves towards training on a tri-Service basis. However, integration below the ADF level has been slow as the delivery of health care has largely remained organised along single Services lines.

3.8 An example of tri-Service integration has occurred in Canberra with the formation of the Canberra Area Medical Unit (CAMU) and the Canberra Area Dental Unit. These two units, with tri-Service staffing under Army command, provide medical and dental services to all ADF personnel in the Australian Capital Territory. Health care in the inner Melbourne area is provided to all Services by an Air Force unit based at Victoria Barracks. However, a lack of cooperation and coordination among the Services appears to have prevented similar integration in Sydney, Townsville and Darwin.

3.9 Since 1993 the Surgeon General has exercised technical control of health service assets supported by the Directors-General of health services for Navy, Army and Air Force. The ANAO considers that the transfer of the single Service health positions from the Service Offices has attenuated the lines of control for health services. The Directors-General have dual lines of control to the Surgeon General and to their Services. They also have dual tasking with functional responsibilities for ADF-wide matters, while continuing to have single Service responsibilities. This can, at times, result in a conflict of roles. Although the OSGADF was intended to focus on health services at the strategic level, the continuing responsibility for single Service matters has resulted in its being involved in day-to-day operational issues. The principal benefit of the enhancement of the OSGADF was to provide a single point of advice and reference for all ADF health matters. However, it appears to have diffused and complicated health services management in the single Services.

3.10 The ANAO observed that the present dual responsibilities of the single Service Directors-General were resulting in them being able to give only limited attention to strategic tri-Service matters. The Directors-General of Navy and Army health services advised the ANAO that the bulk of their time was directed to single Service issues. The ANAO considers that the structure of the OSGADF would be improved if the responsibility for day-to-day single Service issues were to be placed in one branch and thus enable the other two branches to focus on the strategic role. If the three branches continue to be filled by the senior medical representative from each Service they would be available to be consulted on any matters of principle affecting their particular Service.

Single Service health requirements

3.11 Although each Service clearly has unique requirements, the fundamentals of

health care remain the same, especially as the major part of the health services workforce is engaged in providing peacetime support services. In addition to their operational and administrative tasks, most military medical officers' work has a clinical component akin to general practice. Almost all specialist treatment is provided by civilian practitioners (many of whom are Reserve members). In general, the range of conditions and nature of treatment are similar in each of the Services although the different operational environments could require specific Service knowledge. In some employment categories, e.g. pilots, special medical requirements do apply but, in many cases, these categories are not unique to a Service and broader training, or cross training, could equip medical officers to deal with most categories. In the case of dental officers there is little to distinguish between the type of treatment provided in each Service.

3.12 Health services personnel stressed the significance of the occupational health role of military medicine and the importance of a thorough understanding of the nature of the work and living conditions of members being treated. This knowledge has a bearing on the best form of treatment and how quickly the member can be returned to duty. It was claimed that this knowledge could be obtained only by establishing a close working relationship with the various elements, as well as developing an appreciation of the culture of each Service. It was stated that it would be difficult for health services personnel to become familiar with these features in all the Services.

3.13 The ANAO recognises that each Service operates in a different environment and consequently the operational needs of each Service differ. Within each Service specialised training is undertaken in those operational roles that have been assigned to the different commands, with an emphasis on the types of health threats likely to be experienced in their particular sphere of combat. However, in peacetime the time devoted to these activities is relatively small.

Integration of health services

3.14 The single Service nature of health care delivery has led to wide variations in the allocation of resources among health service units. The ratio of health personnel to dependent populations fluctuated both within and among Services. It was also notable that there were shortfalls in medical resources attached to high readiness combat units in the north and in the Navy fleet pool. These shortages seem to be inconsistent with the higher priority that should be attached to health support to operational units. As previously mentioned the Surgeon General has technical control of ADF resources but does not control the allocation of resources.

3.15 The wide distribution of command and control is cumbersome and confusing and leads to inefficiencies and inequities in the provision of health services. The division of responsibility among various Service commands has led to different priorities being adopted for the allocation of resources to health services. It has also led to the duplication of services.

3.16 The ANAO considers that more effective management of health services

could be achieved if the Surgeon General had full control, rather than technical control, of ADF health services. In addition to providing strategic level advice on health service matters the Surgeon General would control the allocation of resources. This would ensure portfolio-level responsibility and accountability for all health related resources. It would also enable the development of a corporate strategy and a joint approach to identifying the ADF requirement for health support and the appropriate allocation of resources to meet both operational and support needs. This would require the transfer of command and control for all health care assets to the OSGADF. When health care assets are required for exercises or operational deployment, command and control would be assigned to the operational commanders. A memorandum of understanding would need to be developed between the OSGADF and the operational commands clearly enunciating the funding arrangements when units are required operationally.

3.17 The ANAO acknowledges that vesting full control of health service assets with the OSGADF is a departure from the general principle that Headquarters ADF is concerned with strategic matters and should not be involved in day-to-day control. In practice, through its current responsibilities for single Service matters, the OSGADF is already partially exercising this role. In the absence of a single ADF logistics command, the most viable alternative to the present unsatisfactory arrangement is to assign the functions to the OSGADF. It is also consistent with the current trend towards joint service control. If this proposal is accepted it would be necessary to transfer existing single Service positions with responsibilities for managing health service assets to the OSGADF. Although the ANAO was unable to determine the full costs associated with this proposal, it considers this to be the only viable solution to the wide-ranging problems identified.

Recommendation No.6

3.18 The ANAO recommends that the Surgeon General be given responsibility for the command and control of all ADF health resources, that appropriate human and financial resourcing be transferred to the OSGADF and that formal agreements be developed with operational commanders in relation to the provision of resources for operational purposes.

Defence Response

3.19 Agree. This issue has been picked up by the Defence Reform Program which also supports such a recommendation.

Medical Officer staffing structure

3.20 A notable feature of the permanent forces' medical structure is that medical officers are employed as general practitioners and there is an absence of specialist medical officers, such as surgeons and anaesthetists. During operations it is expected that Level Three health support will be provided (see paragraph 1.9). Both medical practitioners and surgeons are required to provide this level of support. The ADF relies almost exclusively on Reserve members to provide

specialist services during exercises and on deployment.

3.21 The pay structure for medical officers in the ADF does not contain provision for the employment of specialists. In many cases the workload at an individual Service establishment would be insufficient to justify a full-time specialist, but an examination of expenditure on specialists suggests there is sufficient workload to justify specialist positions on a tri-Service basis. The ADF has experienced difficulties in attracting and retaining medical officers and it is possible that the lack of specialist positions is one of the factors contributing to high wastage rates. In view of the operational requirement for surgeons and anaesthetists to treat wounded, sick and injured, it would seem that there is benefit in having the capability to employ full-time specialists in the ADF.

3.22 The ANAO considers that the ADF should develop coordinated strategies and appropriate service conditions packages that would encourage the employment of specialist medical officers within the permanent forces. This examination would need to consider the costs and benefits, in comparison with the present methods of engaging specialists, including the potential for an ADF specialist to be available to travel to other centres and reduce the travelling time of members. Another benefit would be the ability to deploy an ADF specialist at short notice, which is not always possible with Reserve members who have private practice commitments.

3.23 In common with most career structures in the ADF the higher ranks in the health services largely entail command and associated management responsibilities. As a consequence, promotion to higher ranks usually results in health professionals spending more time on management and, consequently, less time on clinical duties. Defence advised that its review on Attraction and Retention of Medical Officers showed that 45% of doctors indicated a preference for confining their duties to clinical. The above factors raise three issues - firstly, the extent to which medical officers should be streamed into either clinical or administrative posts; secondly, whether a clinical loading should be paid when performing clinical duties; and thirdly, whether there is scope for providing greater promotional opportunities for practitioners who wish to remain in the clinical stream.

3.24 Discussions with Defence personnel indicated that some officers are being placed in command posts at an early stage of their career, in part due to the high turnover of medical officers. These officers may not have had sufficient time to fully develop their clinical skills and may also lack adequate training in command responsibilities. It would be desirable for all health professionals to spend a specified minimum period on full-time clinical duties. It should be recognised that some medical officers wish to remain as clinicians for most of their career.

3.25 The difficulty of attracting and retaining uniformed medical officers at the lower rank levels has been a major factor in a number of positions being staffed by civilian contract medical practitioners. There has been a reluctance by the Services to abolish uniformed positions and replace them with civilian positions

even though some contractors have been employed for an extended period of time and there are limited prospects of the positions being filled by uniformed personnel. Contract staff are not eligible for promotion and, in some cases, experienced contractors are supervised by relatively inexperienced Service medical officers. Where it is cost-effective, consideration should be given to the civilianisation of positions in non-operational areas via the employment of health practitioners with appropriate military knowledge and experience. It is possible that some of the issues mentioned above may be addressed by the review of Attraction and Retention of Medical and Dental Officers sponsored by the VCDF (refer Appendix 2).

Recommendation No.7

3.26 The ANAO recommends that, in conjunction with any recommendations flowing from the review of Attraction and Retention of Medical and Dental Officers, Defence examine the present medical officer structure with a view to providing more flexibility, including the employment of specialist medical officers, promotions for general practice clinicians and the streaming of medical officers into either clinical or administrative posts.

Defence Response

3.27 Agree. The principles are also applicable to the management of most, if not all, health professionals in the ADF and, to some extent, to other officers.

Human sciences research

3.28 As outlined in Chapter 2, Defence has three separate medical research units - underwater medicine in Navy, malaria research in Army and aviation medicine in Air Force. In addition, each Service has psychology units that conduct research into psychological factors. The Defence Science and Technology Organisation has personnel engaged on research into human sciences, including nutrition, diet and hydration. The ANAO also observed that a small number of ADF personnel are undertaking human science research projects as part of academic programs for higher degrees. Overall, it appears there may be some 150 personnel located in nine or more areas undertaking research into human sciences affecting the performance of ADF personnel.

3.29 Existing mechanisms within Defence do not adequately coordinate and direct this research activity or centrally prioritise the research effort. Having regard to the fragmented nature of the research elements there is no assurance that the available resources are being directed to projects designed to enhance ADF operational capability in the most effective manner. Defence lacks a human science research strategy and human science research is not integrated into the ADF capability development process.

3.30 In view of the differing focus of each of the research units it may not be feasible to integrate all elements into a single entity, but evidence suggests there is a need to establish a clear strategy for research into human sciences as well as priorities for the conduct of research. The benefits associated with the

introduction of improved research coordination arrangements include:

- elimination of duplication in research activity and the associated resource savings;
- improvements in operational effectiveness due to a more effective interface between ADF personnel and the technology they use; and
- reduction in illness and injury and the associated compensation costs.

3.31 The ANAO concludes that human sciences research within Defence needs to be centrally monitored and that a cell should be established with the authority to coordinate research activity and advise on priorities for the allocation of resources to this research. Such a mechanism could be established within the OSGADF whereby the Surgeon General could monitor the broader Defence requirements for human sciences research and provide advice to the VCDF on resource prioritisation.

Recommendation No.8

3.32 The ANAO recommends that Defence establish a mechanism within the OSGADF with the authority to coordinate human sciences research within Defence and to provide advice on priorities for the allocation of resources to this research.

Defence Response

3.33 Agree. The chapter and recommendations are in accord with the department's intent, but do not give sufficient recognition to the considerable progress already made. The need for coordination of human factors research across Defence is acknowledged. This should be done through the establishment of:

- a) a Defence Human Factors Special Interest Group, to enhance the interchange between researchers; and
- b) a Human Science Interim Steering Group to examine the broader issues and initiate a review process.

4. Facilities Planning and Utilisation

This chapter discusses health facilities planning, the utilisation of bedded facilities, the use of civilian hospitals and options for the delivery of pathology services. The ANAO identified planning deficiencies, underutilisation of health facilities, the need for increased training and experience in dealing with trauma situations, and the potential for savings in the conduct of pathology screening.

Background

4.1 The ADF has developed a substantial range of facilities from which to deliver its health services. Defence advised the ANAO that the principal reasons for maintaining ADF health facilities (in particular the hospitals) were to provide a training base, respite and career development postings for ADF health personnel. Many of the health personnel currently providing non-operational support services would be required to deploy to operational areas in the event of a military contingency. The provision of an in-house health service gainfully employs these personnel in peacetime and helps to maintain their skills.

4.2 Wherever possible, ADF members are treated in ADF facilities. In evidence to Parliamentary Committees, Defence has stated that military hospitals are capable of treating 80-85% of medical conditions suffered by members. When ADF members cannot be treated in ADF hospitals, because of either geographic factors or the nature of the condition, they are usually admitted to public or private hospitals as private patients with Defence responsible for all associated costs. Even though the costs may be high, the practice of admitting ADF members as private patients when treatment cannot be provided in ADF facilities is believed by Defence to be justified by the benefits of returning members to duty in the shortest possible time. Also, as members do not pay the Medicare levy there is some concern about the appropriateness of their accessing the public hospital system as Medicare patients.

4.3 The OSGADF believes that it is more cost-effective to treat members in Defence facilities. Members requiring treatment in other hospitals are generally transferred to an ADF facility as soon as their condition permits. Most major Defence bases have a medical facility capable of providing low dependency in-patient care. Apart from reducing payments to external health providers, it also enables the ADF to provide care to a large single population who cannot be returned to barracks accommodation because of the infectious nature of their condition or the difficulty of obtaining adequate rest and quiet. The ADF health services provide an element of convalescence and rehabilitation that would not necessarily be available in the general community.

Facilities reviews

4.4 Between 1989 and 1991 Defence conducted a series of reviews into health facilities. The reviews recognised the interrelation of hospital care in the support

area with :

- health care in the support of operational deployments; and
- the individual training of personnel to perform operational and support area roles and tasks.

4.5 These reviews culminated in decisions by the Chiefs of Staff Committee (COSC) in March and December 1991. COSC accepted the review recommendation that ADF bedded health facilities would be classified either as sick quarters or hospitals and staffed, scaled and equipped accordingly. Prior to 1991 there were seven health facilities in the ADF that were designated as hospitals. These were located at HMAS PENGUIN, HMAS CERBERUS, HMAS ALBATROSS, 1 Field Hospital Ingleburn, 1 Military Hospital Yeronga, 3 RAAF Hospital Richmond and 6 RAAF Hospital Laverton. In addition Army had two Reserve hospital units - 2 Field Hospital Brisbane and 3 Field Hospital Adelaide.

4.6 Arising from the COSC acceptance of the review recommendations, the Navy hospitals at HMAS CERBERUS and HMAS ALBATROSS as well as the Air Force hospitals at Richmond and Laverton were to be classified as sick quarters. The 1st Military Hospital and 2nd Field Hospital were to be amalgamated and new facilities were to be constructed in the Enoggera area. The Committee also agreed in principle that an ADF Health Centre comprising the ADF Health Training Centre, 1st Field Hospital (including support area component), the central ADF pathology reference laboratory and the Army Malaria Research Unit be constructed at Holsworthy.

4.7 There has been a significant upgrading of ADF health facilities in the past ten years, partly stemming from the COSC decisions in 1991. In addition to new hospital facilities at Enoggera and Holsworthy, health facilities have recently been constructed for Navy at HMAS CERBERUS, HMAS COONAWARRA and HMAS STIRLING and for Air Force at Richmond, Pearce and Amberley. As part of the COSC deliberations consideration was given to the construction of a School of Army Health at Holsworthy at an estimated cost of \$13m, but a final decision is yet to be made. The ANAO obtained details of the Defence valuation of its fixed health facilities and ascertained that the total was about \$215m. This figure includes hospitals and medical centres, as well as the value of smaller facilities such as Regimental Aid Posts (RAP).

4.8 About twenty health centres classified as sick quarters provide outpatient support to local military units. These enable personnel to be treated expeditiously within their work environment, thereby minimising disruptions to work and training programs. With local services there are also savings in time and travel. Although the larger sick quarters are staffed and scaled to the level of a small hospital, most have limited surgical and emergency capacity. They have some investigatory capacity in the form of X-ray and pathology capability which enables them to treat patients who otherwise would be referred to a hospital or other external health agency. They also have some integral pharmaceutical and physiotherapy capacity.

4.9 A number of reviews have endorsed the requirement for sick quarters, particularly on bases with large live-in populations. They provide the necessary facilities for nursing minor sickness and injury in personnel who are not sick enough for admission to hospital and who lack the home care and attention that would normally be available to them in civilian life. Sick quarters are cheaper to build, operate and maintain than hospitals because they are less staff intensive and have less extensive equipment and facilities.

Hospitals in the greater Sydney area

4.10 Generally the ADF will have only one major health facility serving the military personnel in a region. An exception to this is Sydney where the three Services each operate a major hospital. The following paragraphs outline ADF planning and review activity for hospital care in the greater Sydney area.

4.11 In 1994 a consultant health planner was engaged to advise the Surgeon General on the provision of hospital care in Sydney. The principal terms of reference were to 'review the Report to the Chiefs of Staff Committee on Provision of Hospital Care - Regional and Facilities Issues and the Terms of Reference for the Review of Hospital Needs in the Greater Sydney Area, and ... prepare an updated Health Planning Report on the need for ADF health facilities in Sydney.'

4.12 The consultant's report did not support the proposed ADF Health Centre but, based on 'operational imperatives and manpower issues', recommended that the Surgeon General retain the existing Service hospitals, augmented by strengthened networking to utilise all health services more effectively. The consultant also recommended that each hospital continue to undertake pathology services. Accordingly, the Central ADF pathology reference laboratory was no longer required. It was recommended that the Army Malaria Research Unit be relocated to an ADF site in Brisbane. The relocation of the School of Army Health to Sydney was supported but, as there was no imperative for the School to move in the immediate future, it was proposed that provision be made for it to be collocated with the 1st Field Hospital.

4.13 The report explored two major options for the delivery of hospital services in Sydney - a centralised ADF hospital on an ADF or civilian site and networked Service hospitals/medical centres. The networked services option was recommended by the consultant, and accepted by the Surgeon General and subsequently by the VCDF. The ANAO is concerned that the matter was not referred back to COSC, whose 1991 decision to construct an ADF health centre at Holsworthy was based on detailed and comprehensive reviews. There had not been any significant developments that were not known at the time of the original COSC decision.

4.14 The consultant's report acknowledged that the networked services option was not the most efficient and effective and would result in low use of ADF health assets and a high cost structure, but supported this option on the grounds that it:

- provided the most effective operational configuration;
- provided the best access for Defence personnel to a health care facility; and
- retained specialist medical panels that were well established and cost-effective.

4.15 The consultant's report did not contain any comparative cost data. The ANAO attempted to establish the occupied bed day cost of the existing hospitals. Although it was difficult to obtain precise data the ANAO analysis suggested that recurrent expenditure in ADF hospitals varied from about \$850 to over \$2 000 per occupied bed day. The AIHW Hospital Utilisation and Costs Study of 1991-92 indicated that the recurrent expenditure per occupied bed day for civilian metropolitan hospitals of similar size was \$370. Application of AIHW price indices to this figure provides an estimate of \$400 for 1995-96. The major cost factor considered by the consultant was the time and expense associated with travel to a central facility. The ANAO considers this cost would not have been significant if arrangements could have been made for specialists to conduct clinics at existing health centres on ADF bases and travel by members was limited to those occasions when they were to be admitted for surgery.

4.16 In addition to the capital investment that Defence has made in these facilities, factors that need to be considered are the requirement for Defence to maintain a health services infrastructure to provide a training base for its health services personnel and to provide respite postings and professional development for personnel serving in operational units. In the case of Navy where members may be at sea for extended periods this is particularly important.

4.17 The proposed ADF Health Centre was seen as a cost-effective means of meeting the bulk of the ADF's surgical needs in the Sydney area. It would also have provided sufficient throughput to meet the essential hospital training support for medical trainees. In lieu of this the ADF has retained three small single Service hospitals. It is evident from analysis undertaken by the ANAO that these hospitals are operating well below capacity and hence are not cost-effective. Defence observed that the hospitals have a significant training role.

4.18 The operational benefits associated with training in the specialised needs of each Service that can be provided in the smaller hospitals are difficult to quantify. These benefits need to be measured against the training and professional development opportunities of a more varied throughput and access to specialised facilities, as well as the cost advantages that would arise in a larger hospital. These factors appear to have influenced the conclusions of the earlier reviews and of the COSC in supporting the proposed ADF Health Centre. In the absence of a detailed and thorough analysis it is not clear to the ANAO that these factors were properly considered in reaching the decision to retain three hospitals in the greater Sydney area.

Underutilisation of health facilities

4.19 In addition to its hospitals the ADF maintains about twenty health facilities

that have the capability to provide low dependency health care. The ANAO found that these centres appear to be operating at well below full capacity. This may, in part, be due to the need to provide facilities at a variety of locations catering to relatively small numbers of personnel and to provide some expansion capability. Operating theatres at Townsville and Puckapunyal are not in use, and operating theatres at HMAS CERBERUS and Duntroon have only limited use. Dental facilities at a number of bases visited by the ANAO appeared to have significant spare capacity. New dental training facilities at HMAS CERBERUS contained a significant amount of new equipment that had not been used.

4.20 Due to difficulties in staffing medical officer positions in Darwin a new medical centre at Robertson Barracks in Darwin has not been used. Staffing difficulties have also led to the closure of an in-patient facility at the Air Force base in Darwin. As a result there is no capability for any inpatient care in the Darwin area and if hospitalisation is required even low-dependency patients have to be placed in civilian hospitals as private patients. Various attempts to resolve the Darwin situation have been unsuccessful. At the time of writing this report the issue was again receiving attention at senior levels within the ADF.

4.21 In addition to the three hospitals in Sydney, a wide range of surgical procedures are undertaken at the ADF hospitals in Brisbane, Melbourne and Adelaide. Although there are also significant Defence populations at Townsville, Wagga Wagga, Williamstown and Darwin, members at these locations undergo surgery in civilian hospitals near their home base. Defence has limited data on the utilisation and cost of running its health facilities and, consequently, does not analyse usage of ADF or civilian hospitals, including number of bed days, or the comparative costs of the different facilities. Also Defence does not maintain up-to-date data on the dependent population of each health facility.

4.22 On the assumption that it is cheaper to accommodate members in ADF facilities than in civilian hospital beds, members are usually transferred from civilian hospitals to ADF facilities as soon as their condition permits. This assumption may be correct if it is accepted that the ADF facility will continue to be staffed regardless of the number of occupied beds and therefore it is cost-effective to make use of the facility. As Defence does not measure the costs of maintaining these facilities it is not certain that it is the lower cost option. Once again the limited data available made it difficult for the ANAO to determine ADF costs but, as noted earlier in this chapter, it appears that in some cases the civilian hospital option may be cheaper.

Recommendation No.9

4.23 The ANAO recommends that Defence:

- (a) undertake a detailed costing of all ADF hospitals and medical centres; and
- (b) rationalise the provision of these beds where their costs exceed the costs of beds in equivalent civilian facilities and their retention cannot be justified on preparedness and operational grounds.

Defence Response

4.24 Agree. Any analysis must take into account the difference between civilian and military hospital beds, particularly the need to provide low dependency care. This applies specifically in barracks environments, where the differences between a military member and a civilian are significant. A civilian with a minor illness requiring time off work would remain at home, tended by family members, whereas a military member requires low dependency bedded accommodation in the absence of family support.

Use of civilian hospitals

4.25 There have been various attempts in the past to develop integrated Service and civilian hospital facilities for the mutual benefit of both parties. Defence documentation indicated that discussions with hospital authorities had broken down for a number of different reasons, including :

- the need for the ADF to retain full control over its personnel to achieve Service health training requirements;
- the difficulty of reaching agreement on cost attribution; and
- different arrangements in relation to industrial matters such as acceptance of ADF training and varied conditions of service for ADF and civilian personnel.

4.26 The possibility of integration with a civilian hospital was raised again in connection with the proposed ADF Health Centre and was considered in the consultant's report. The major advantages of the civilian site option were seen to be:

- the integration of ADF hospital services and the creation of direct links to specialist and tertiary level services provided by a civilian teaching hospital;
- potential economies of scale in the delivery of hospital services and specialist outpatient clinics;
- access to a wider range of clinical and diagnostic services at one site;
- higher levels of throughput and greater range of casemix, including trauma and burns, providing wide on-the-job training experience; and
- opportunities to cooperatively develop specialist services in areas such as orthopaedics, rehabilitation medicine and sports medicine.

4.27 The major disadvantages were seen to be:

- increased travel by a large proportion of members to access hospital services;
- increased pressure on staff availability, with four units (including Holsworthy) in lieu of three units to staff;
- break up of current specialist panels (many are Reserves employed on a sessional basis) and need to renegotiate new panel and funding arrangements;
- ongoing lease/rent charges for existing facilities; and

- largest capital investment (because of need to provide health centre at Holsworthy).

4.28 After examining the potential of all teaching hospitals in Sydney the consultant considered Concord Repatriation General Hospital to be the preferred site, should the collocation proceed. This hospital had a number of physical advantages and was able to provide an impressive range of health and associated ancillary services necessary to support the health care, training and professional development roles of an ADF hospital facility.

4.29 Although the concept of associating the ADF health centre with a civilian hospital was rejected in the consultant's report, the ANAO considers the benefits of the proposal to be significant, in particular the exposure of members to a wider casemix, and that the proposal warrants further examination. This could entail an arrangement whereby the ADF leased a ward in a civilian hospital to be reserved for the use of ADF members but with provision for ADF staff to be rotated through other areas of the hospital to gain wider experience. Although the difficulties encountered on previous occasions are likely to arise again, it is believed that every effort should be made to address and resolve these difficulties.

Need for experience in treating trauma

4.30 The *raison d'être* for the ADF health services is to provide support to operational forces in conflict situations. There is no doubt that routine illnesses and injuries will still occur during conflict, but the major requirement is to treat casualties so that they can be returned to duty or to stabilise them for evacuation. In peacetime the majority of operative procedures carried out in ADF hospitals are elective procedures. The lack of surgeons and anaesthetists in the permanent forces results in most trauma and emergency cases being referred to public hospitals. High technology health procedures and those requiring intensive care are referred to civilian hospitals on a fee-for-service basis. From a preparedness perspective, the ANAO considers that a major shortcoming of the ADF health services in peacetime is the lack of experience in treating trauma and emergency cases at ADF facilities. This was confirmed in discussions with ADF professional medical personnel.

4.31 The operational role of the health services includes the provision of Level One to Level Three medical support in the field (see paragraph 1.9). It is expected that higher levels of medical support will be provided by the civil infrastructure. The nature of the care currently provided by ADF hospitals is more equivalent to Level Four and consequently staff are not obtaining experience or first hand knowledge in the treatment of cases most likely to be encountered in conflict situations. At present the greatest scope for obtaining this type of experience and training is in civilian hospitals and the ambulance services. This problem was identified during the deployments to Rwanda.

4.32 Some initiatives have been taken to allow officers access to specialised civilian training. Air Force has introduced a policy enabling health services

officers to obtain additional experience by providing them with leave with pay up to two half days per week. This experience may be obtained in a hospital, medical or dental school or other appropriate institution. Army allows its medical officers to undertake off-duty vocational training and clinical work at approved civilian facilities. During the audit Army personnel expressed some dissatisfaction that the policy was restricted to medical officers. Navy did not appear to have a policy similar to those of the other Services. The ANAO considers there is a need for a coordinated policy to ensure that all health services personnel have access to this form of professional development.

4.33 The ANAO noted some health services personnel were obtaining experience by working after hours in public hospitals. Discussions have also taken place with some State ambulance services to allow medical assistants to work with paramedical staff on ambulance calls. One of the difficulties of arranging placements in the civilian sector is the lack of recognition of ADF training of medical assistants. The ANAO was also informed that funding constraints on external health services expenditure have prevented health services staff from obtaining experience in civilian facilities. Units are unable to release staff due to funding limitations upon employing contract health practitioners to relieve staff wishing to obtain this experience.

4.34 There are clear indications that, if the health services are to be effective in providing operational support, ADF staff need to receive appropriate training and experience in dealing with trauma situations. The qualifications of professional health services staff should not pose any problems in such an endeavour but it may be necessary to examine the training of medical assistants to ensure that it satisfies civilian standards.

Recommendation No.10

4.35 The ANAO recommends that Defence make determined efforts to reach agreement with the necessary civilian health authorities for ADF personnel to work in areas where they will be exposed to emergency treatment of wounds and injuries and that a uniform ADF policy be developed.

Defence Response

4.36 Agree. There is the potential for costs to Defence to increase to enable ADF personnel to be released for such training. A strategic alliance between 1 Field Hospital and Liverpool Hospital is being progressed to this end.

Pathology services

4.37 ADF pathology laboratories provide a wide range of services, including the cross-matching of blood, haematology, biochemistry, microbiology/parasitology and blood gas estimation. The ADF also maintains a pathology capability that is able to be deployed with its operational forces.

4.38 Routine screening of infectious diseases and health promotion testing are currently undertaken at four ADF laboratories; three are located in the greater

Sydney area and one in Brisbane. All recruit testing is performed in Sydney. Although full details are not available it is understood that recruit screening, together with pre and post deployment screening and annual health checks, represents a substantial proportion of the workload of these laboratories. In general the same tests are conducted by each Service, although there are some differences between the three Services in the extent of testing. The ANAO noted that the laboratories in Sydney were experiencing staffing difficulties in recruiting and retaining uniformed scientific staff.

4.39 Each of the existing laboratories refers more complex pathology testing to external providers. However, the ANAO considers that there is scope to contract out a higher proportion of pathology services than is currently occurring. The wide geographical coverage of private pathology services caters well to the decentralised nature of the ADF. The potential exists to develop contracts, on either a national or regional basis, with pathology laboratories near each of the major concentrations of Defence personnel. This could include routine pathology testing as well as the more time sensitive tests and the more complex tests that ADF facilities are unable to perform. Any decision to contract out pathology services to the private sector would need to be subject to a cost benefit analysis which made comparisons with other pathology testing options. The ANAO recognises that, as Service hospitals continue to provide a comprehensive range of hospital services including surgical procedures, there may be a need for an in-house pathology capability to provide pathology services that are time critical for early diagnosis of patient condition.

4.40 As outlined previously, the ADF health centre was to include a central ADF pathology reference laboratory. The review at that time envisaged that the laboratory would perform pathological testing for all Service entrants, in-Service HIV testing, and major pathology tests for clinical diagnostic purposes where delays caused by the time taken to remit samples to the centre would not be detrimental to the health of the patient. Those operational units that require pathology support in the field would retain the appropriate organic pathology capacity and continue to provide services in their home location. Other ADF health care facilities could retain sufficient capacity to perform routine minor pathological testing to support clinical diagnosis to a standard consistent with the status and role of the facility.

4.41 The consultant's report contained the following comment in respect of the central pathology reference laboratory: '...the study team recommends that in view of the networked Service hospital arrangement each hospital continue to undertake pathology services, with the option to use external commercial providers as appropriate to augment the services required in each catchment.' As a result of the decision not to proceed with the ADF health centre, pathology testing continues to be conducted at each of the Service hospitals in the Sydney area.

4.42 Apart from the cost savings that could arise from the provision of a central laboratory to carry out routine screening tests, it is possible that better quality

control could be achieved as there would be one laboratory rather than four performing the tests. The higher throughput of tests would also enable the staff to obtain greater expertise. The reduced workload at other laboratories would allow their uniformed staff to focus on operational roles. A disadvantage would be the additional costs of the transport of specimens to a central location. Also the transport of small numbers of specimens could be uneconomical and there would be a need to provide some flexibility for small numbers or urgent tests to be conducted at other laboratories. If recruit intakes occurred simultaneously and the results of recruit screening tests were required quickly, a central laboratory might experience difficulty, but a one-off problem of this nature might be overcome by short term 'secondment' of staff from other laboratories.

4.43 The ANAO considers that an opportunity exists to achieve economies through either the contracting out of a substantial proportion of pathology services or the development of a central ADF reference laboratory, possibly at one of the existing laboratories, to conduct routine screening of infectious diseases and health promotion testing.

Recommendation No.11

4.44 The ANAO recommends that the Surgeon General examine the costs and benefits of either contracting out pathology services or centralising the conduct of all routine pathology screening in an existing ADF laboratory.

Defence Response

4.45 Agree.

5. Financial Administration

This chapter outlines the health services financial administration arrangements, financial management and controls, tendering for external services, the potential for increased cost recovery, and use of the Medicare system by ADF personnel. The ANAO concluded that there was an urgent need for Defence to develop systems to monitor and control health services expenditure.

Background

5.1 There are four major components of recurrent expenditure on Defence health services. These are salaries (both military and civilian), payments to external health service providers, medical materiel, and other operating costs (such as fuel, power, catering, cleaning and laundry).

5.2 Salaries of uniformed members are recorded and managed at the single Service and Force Element program level. Expenditure incurred on external health services (such as hospitals, medical specialists and contract health providers) is recorded and managed at single Service command level and below. Medical and dental materiel, for example pharmaceuticals and hospital equipment, are managed by Army Headquarters Logistics Command as the single Service logistics manager. Minor capital equipment and the repair and

overhaul of equipment and stores are managed in the same way as medical and dental materiel. Expenditure on other health administration is managed on a single Service program basis at the command level.

Financial management and control

5.3 The ANAO found the main emphasis of health services financial management was on external health services and health materiel expenditure. There was little consideration of other costs involved such as salaries, operating and capital costs. This imposes constraints on the determination of realistic budgets. ⁵ Individual units were allocated budgets in respect of external health services and attention was directed at reducing expenditure in these areas. Most of the external health services expenditure is, however, of a non-discretionary nature. For example, a seriously ill or injured member may require lengthy hospitalisation and specialist treatment and these costs cannot be avoided. Because of this factor there is little incentive to reduce costs and budgets are frequently exceeded.

5.4 In 1995-96 external health services expenditure comprised: contract health practitioners \$26.7m, hospital treatment \$11.8m, general practitioners \$7.8m, radiology \$3.7m, orthopaedic surgery \$2.5m, physiotherapy \$2.4m and pathology \$2.1m. Expenditure on external health services has increased from \$45m in 1993-94 to \$57m in 1995-96, a growth of more than 25% in two years and is increasing at a greater rate than most other areas of ADF expenditure. The ANAO also noted that Defence medical costs are increasing at a faster rate than those of the community.

5.5 Some of the major reasons for the increase in expenditure on external health services include:

- the increasing cost of contract health practitioners who in many cases are employed because of shortages of ADF personnel. The higher cost of contractors should be offset partially by the transfer of funds from the salaries budget to the external health services budget, but as a general rule there is no adjustment between these two cost centres;
- the difficulty in controlling referrals by medical practitioners and RAPs to external providers. These referrals include requests for specialist opinions, pathology testing and diagnostic imaging. In many cases these referrals may be essential to establish the condition of the patient but, at present, there is limited ability to monitor the level of referrals and to assess whether over servicing may be occurring. A similar issue arises in relation to prescribing patterns for pharmaceuticals where there is potential for more expensive brand names to be prescribed in lieu of equally suitable generic drugs or for medication to be prescribed unnecessarily; and
- an oversight by Defence that resulted in a failure to pay the superannuation guarantee levy on behalf of contract health practitioners. This has resulted in substantial back payments. A revision of conditions of service for contract health providers has been under negotiation for some time but is likely to be

finalised in the near future. The revised conditions will probably place additional pressure on external health services funding.

5.6 In Chapter 3 the ANAO discussed the fragmented nature of the control of ADF health resources and recommended that the Surgeon General be given responsibility for the control of all health assets. The ANAO considers this should include external health services funding, medical and dental materiel, and those aspects of minor capital equipment that apply to health services. It would also be desirable for a facility to be available to enable funds to be transferred from military and civilian salaries to the budget for external health services when contractors are employed in lieu of salaried personnel.

5.7 Although funding of health services is managed on a single Service basis, the ANAO found that in certain locations one Service was providing significant health support to other Services. In Brisbane the former 1st Military Hospital was providing a range of hospital treatments including surgical procedures to Air Force personnel from the Amberley Air Base. Similarly, in Melbourne the Air Force hospital at Laverton provides services for all ADF members in the Melbourne area and Puckapunyal. Air Force also provides outpatient and dental services to Melbourne-based staff from Victoria Barracks. In Canberra medical and dental services are provided by units controlled by Army Logistics Command. On a smaller scale similar arrangements exist at other locations.

5.8 The ANAO was informed that Service funding was adjusted at the program level to compensate one Service for providing health care to members of the other Services. In view of the limited knowledge of the costs associated with health services, or of the level of services provided, the basis of any adjustment is unclear and probably inaccurate. Centralised control of health services funding would eliminate the need for any funding adjustments.

5.9 Health services budgets are controlled by the Service Commands. There is no evidence that funds are distributed on a priority basis across the ADF to the various health service units or that these funds are used effectively. There did not appear to be any process whereby health services costs were related to dependent populations with a view to identifying high and low cost units and the factors underlying such costs.

5.10 It is essential that appropriate systems and procedures be developed to enable the OSGADF to monitor and control expenditure and to ensure that funds are allocated efficiently and effectively, on well-based estimates. This is particularly important if centralised control of health services funding is to be effective. The information should have regard to the size of the dependent population, the nature and extent of the health services to be provided to that population and the opportunity to use civilian services.

Costing information

5.11 A major concern to the ANAO was the limited availability of costing information on health services. Apart from the Defence ledger system, the Defence Financial Management Information System (DEFMIS), there is no readily

accessible information on ADF health costs. Only 20% of total recurrent health expenditure can be directly attributed to the health services through DEFMIS. Salaries costs for health services, which is the major item of expenditure, are not separately recorded. Within the military salaries group it is possible to identify the majority of ADF personnel engaged in health services functions but Defence was not able to provide this information for civilian salaries. Although it is possible to determine the total cost of medical materiel it is difficult to establish a breakdown of this expenditure by Service or individual unit.

5.12 There are a number of other areas of expenditure that are difficult to monitor, including travel and subsistence for health purposes, the cost of ambulance services and facilities operating costs. The ANAO estimated that considerable costs are incurred on Travel and Subsistence for health purposes, but it was difficult to obtain details. Costs are incurred when members are required to travel interstate to attend ADF health facilities, specialist clinics or are admitted to hospital. For example the ANAO noted the cost of transporting members by road from Puckapunyal to attend health services elsewhere was \$170 000 in 1995-96. However, in more remote areas such as Darwin and Townsville, air travel may be required for members to receive appropriate treatment. Facilities operating costs, covering items such as light and power, fuel, laundry, cleaning and catering, are not readily available and therefore had to be estimated. Because of the lack of detailed information on many of the costs Defence is unable to determine the costs of providing hospital care or the cost of running individual health service facilities.

5.13 The ANAO found that Defence last undertook a detailed analysis of bed day costs in ADF hospitals in 1987. That analysis established the cost per bed day to be \$285. The report accompanying that analysis identified a particular problem in relation to the low bed occupancy rate in ADF hospitals. The ANAO noted that Defence has not updated its costing since 1987. As stated previously, a broad-band analysis of ADF bed day costs indicated that this rate is now significantly higher. The 1987 figure continues to be used as the basis for effecting recoveries of costs for members involved in accidents where third party or insurance claims are being pursued. In seeking these recoveries it appears that Defence may be significantly understating the cost of caring for injured members and that significant revenue may have been forgone. The ANAO was unable to determine the value of ADF claims for recoveries, but found that in 1995 the total for Navy (which included a component for hospital care) was \$226 000.

5.14 As stated earlier, the ADF has established facilities to undertake routine pathology testing at a number of centres. Routine radiography is also performed by health services personnel at specific centres but at other centres this capability does not exist and these services are provided by external providers. It is understood that Victoria Barracks in Sydney refers all of its pathology to external providers, even though there are three ADF laboratories in the Sydney area. At the time of the audit there had been no attempt to establish the comparative costs of external providers and ADF services. There will continue to be a need to maintain some pathology and radiography capability for operational reasons but

this would not require all of the resources currently used for these functions. The ANAO considers that the comparative costs of in-Service and external providers should be determined with a view to ensuring that the most cost-effective arrangement is adopted. In November 1996 the Surgeon General proposed that consideration be given to market testing this area.

Recommendation No.12

5.15 The ANAO recommends that Defence develop systems to monitor and control all expenditure on health services and that up-to-date information on the full costs of providing health services be maintained.

Defence Response

5.16 Agree. To implement this recommendation may require additional resources in the immediate future so that the costs of delivery of health care can be determined.

Outsourcing of services to external health providers

5.17 As stated earlier almost all specialist medical services for the ADF are provided by contract health practitioners. Expenditure on specialist fees in 1995-96 was \$19.8m, of which more than 90% was charged on a fee-for-service basis rather than the lower sessional fees. Specialist fees increased by about 14% between 1994-95 and 1995-96. In many cases, these specialists are Reserve members. The Surgeon General believes it is important to maintain an association with Reserve members because of their familiarity with ADF requirements. The ANAO observed that there was a wide variation in the fees charged by specialists. In some cases sessional fees were levied but in other cases various fee-for-service arrangements were applied, including 75% of the Medicare Benefits Schedule (MBS) fee, 100% of the MBS fee, Australian Medical Association schedule fees (which are considerably higher than MBS fees) or specially negotiated rates.

5.18 The negotiation of rates paid is at the discretion of individual units. In some locations, or for some specialities, the availability of specialists is limited and Defence has limited bargaining power. Notwithstanding this, however, the ANAO noted there was no uniform approach to the negotiation of fees. In some locations, Defence representatives had taken an aggressive stance in seeking to contain fees but in other cases had accepted higher fees without question. Although it appeared to be generally understood that MBS fees were a desirable norm there was no clear guidance on the steps that should be taken in negotiations with specialist providers.

5.19 When treatment cannot be provided in ADF hospitals, members are admitted to civilian hospitals as private patients in order to minimise delays in receiving treatment. The ANAO was advised that hospital charges varied significantly and in some cases were more than \$1000 per day. Preference was given to placing members in hospitals relatively close to their home base but often the hospital chosen was at the discretion of the specialist because of the availability of

specialised equipment. Some units have attempted to obtain competitive quotes where there is more than one hospital but this is not a standard practice. Neither the Surgeon General nor the single Services have provided guidelines concerning tenders or negotiations with hospitals. As expenditure on hospitals in 1995-96 was over \$11m there should be some scope for savings in this area.

5.20 Similarly some units have come to arrangements with external pathology and radiology providers to obtain special rates but there has been no coordinated effort to ensure the most cost-effective arrangements have been achieved. The ANAO was advised that in Sydney the Services had negotiated with different providers.

5.21 In November 1996 the Surgeon General advised the ANAO that action was being taken to develop and implement a jointly managed Defence strategy for outsourcing non-core health services. This is to include national and regional contracts with low cost, best practice providers. These measures included developing strategic alliances with the Department of Veterans' Affairs and other major civilian providers. The Surgeon General believes this will result in cost-effective arrangements that will apply to most, if not all, service providers.

5.22 The ANAO endorses the actions being taken by the Surgeon General as it is considered that a coordinated approach should achieve worthwhile results. However, care should be exercised to ensure that national or regional contracts are at least as beneficial as rates that have been negotiated at the initiative of individual units. The outcome of any tenders for hospital accommodation can be used as a benchmark for the review of ADF bed day costs recommended earlier in this report.

Cost recovery

5.23 As outlined previously, there are procedures to recover the costs incurred in treating members from third parties and insurers. The ANAO was informed that the procedures are not always applied and that not all costs are recovered. In some cases the knowledge that a recoverable situation exists has come to light only when the insurer has approached the ADF seeking details of costs. In addition, it is likely that the full costs of hospital and other treatments are not being recovered.

5.24 The ANAO also noted that the Navy School of Underwater Medicine is frequently called upon to assist in the treatment of civilian divers suffering from the 'bends'. The School has one of two specialised facilities in New South Wales capable of providing appropriate treatment. The treatment of this condition can involve intensive care, requiring the presence of a medical practitioner for extended periods. This treatment is normally provided free of charge as aid to the civil community. Many of the patients treated in the Navy facility are recreational divers but some would be professional divers whose costs could be covered by compensation insurance. In view of the intensive and expensive nature of the treatment being provided the ANAO considers the scope for cost recovery for this service should be examined.

5.25 Similarly, as part of its operational role the Air Force is equipped and trained to carry out aero medical evacuations. This capability is used on occasions to evacuate civilians requiring medical care. Once again there could be occasions where it may be appropriate to seek recovery of the cost of providing this service. Other areas, such as the Institute of Aviation Medicine, recover some of their costs from the civilian sector.

5.26 Army and Air Force each have a policy allowing medical officers to undertake professional development clinical duties in approved civilian facilities. Although the Air Force policy states that remuneration is not to be accepted for these duties, the Army policy is not as clear. From a perspective of equity between the Services it can be argued that, where any member is being paid for undertaking clinical duties in civilian facilities during normal working hours, moneys received by the member should be paid to Defence. The ANAO was informed that this is not occurring in all cases.

5.27 The ANAO considers that there is potential to increase the extent of cost recovery for ADF health services provided to the civilian community. The range of services being provided should be examined to determine those circumstances in which costs should be recovered and to what extent.

Recommendation No.13

5.28 The ANAO recommends that Defence examine the health services provided to the civilian community by the ADF in order to determine those circumstances in which costs should be recovered and develop and implement effective cost recovery procedures.

Defence Response

5.29 Agree.

Use of the Medicare system

5.30 Most Australian taxpayers contribute to the cost of health care through payment of personal income tax, the Medicare levy and other general taxation revenue collected by the Commonwealth, State/Territory and local governments. A proportion of the population contribute to their health care through private health insurance. Depending on family circumstances, members of the ADF are generally exempt from the Medicare levy (the value of this exemption is about \$35m p.a.) but make a contribution to the cost of community health services through general taxation collections.

5.31 As Australian citizens most ADF members have been issued with a Medicare card. The ADF discourages its members from obtaining treatment from non-ADF medical practitioners because of the Medicare levy exemption and ADF preparedness requirements to record fully all medical treatments for its personnel. However, sometimes for emergency or other reasons, ADF personnel do receive treatment from civilian providers. Ideally, a claim for these services should be made on the ADF but, in some cases, the member and/or the provider

may choose to use the Medicare system. A major problem with this arrangement is that medical conditions which could affect members' operational deployability are not being recorded by the ADF health system.

5.32 Defence was unable to provide the ANAO with information on the number of members accessing Medicare services. The ANAO obtained a list of members from Defence and requested the Health Insurance Commission (HIC) to identify the number of services for which Medicare benefits had been paid to ADF members. To avoid any breach of medical confidentiality the ANAO sought only numerical details from the HIC and no personal details were provided.

5.33 The HIC extracted a sample of 6000 ADF members and attempted to match these members with Medicare records for the 1995-96 financial year. It was possible to match 5425 records. From these records the HIC found that 973 (18%) ADF members had received an average of more than three Medicare services, with benefits totalling \$76 806. Extrapolating from this sample the HIC estimated that it was likely that ADF members in total had received benefits in the vicinity of \$700 000. Details were also provided of benefits to the three Services and the breakup between male and female members. These figures revealed that the value of benefits paid to Army members was 50% higher than to the other two Services and that the value of benefits paid to female members was almost twice that paid to male members.

5.34 There are two aspects of these findings that appear to require attention. Firstly, the reasons why a significant proportion of ADF members should be using Medicare services. Secondly, whether Defence should be responsible for these payments. The ANAO considers the Surgeon General should pursue this matter with the HIC with a view to establishing whether further details can be provided without breaching privacy considerations.

6. Health Information Systems

This chapter outlines the current development of ADF health information systems and the status of the Health Systems Redevelopment Project. The ANAO found that current ADF health information systems were inadequate and did not support effective policy generation, resource planning or day-to-day management of the health services.

6.1 The information systems required for the non-operational or day-to-day management of ADF health care fall into three categories:

- clinical management, including the maintenance of individual health records;
- health practice support; including appointment scheduling and budgetary control; and
- executive management information systems, providing ADF-wide information on financial and personnel resources, morbidity studies and for health services planning.

The current status of the information systems in each of these categories is

detailed below.

Clinical management

6.2 At the clinical level the individual health records of members are currently manuscript based and are managed through three separate Service specific administrative systems. The Services have, however, now adopted the Army file structure as a standard format for storing the records. All individual health records are duplicated, one copy moving with the member and held by the health service establishment at the member's posting locality with the other copy being held centrally by the ADF Health Records Office. Located in the OSGADF Directorate of Health Records and Information Systems, the ADF Health Records Office is responsible for technical control, physical storage and release of information from Navy, Army and Air Force health records and employs some 52 personnel in these tasks.

Health practice support

6.3 Unit administration for the three Services is largely supported by manual office systems, but some ad hoc computer systems of varying complexity and capability have been developed at the initiative of individual units. For example, PC based systems were identified at Army's Singleton medical centre, HMAS KUTTABUL and Balmoral Naval Hospital where software applications were developed on a database system for the management of hospital inpatients and medical centre outpatients. Air Force has also developed a number of computerised systems providing unit level administrative support.

6.4 The most comprehensive locally-developed health administration system identified during the audit was the Hospital and Regimental Aid Post Database (HRD) developed by Army staff at the Albury-Wodonga Medical Centre. The first applications were developed in 1994 for the casualty department. Subsequently a local area network expanded the system to nine departments, including two Regimental Aid Posts, the inpatient ward, physiotherapy and radiography.

6.5 The manual systems which were replaced by the HRD suffered from duplication of effort, inefficient patient administration and manual statistical gathering, higher error rates in record-keeping and a lack of financial management for the medical centre. The advantages flowing from the use of the HRD system included productivity improvements, such as a more efficient processing of patients, the introduction of new health data collection tools and improved financial management processes. The system produced savings of more than 60% when compared with the salary costs of the manual system of admission and reception. The HRD system was considered to be an essential component in the reduction of 30% of the administrative staffing at the medical centre.

Executive management information systems

6.6 Some Service-wide systems are in use, such as databases maintaining details of members' dental status and systems which identify the requirement for

members' medical check-ups. Army Logistics Command regularly collects data from its units and Air Force Training Command requires its four bases to provide information, such as outpatient attendance figures, which is then collated so that units can be compared against performance indices. Computerised systems developed for Air Force management include MIRMER, which provides multi-user access to health records, and MEDIC, which provides statistical data on health service programs.

6.7 ADF executive level health information systems are, however, still very much in the formative stage. There are currently no tri-Service systems which capture all health services' financial and personnel data. The ability of the ADF to conduct morbidity studies is also greatly limited by the lack of comprehensive systems to capture injury and illness data and units do not always observe the requirement to report such occurrences.

6.8 One of the key health management information systems required by Defence is the ability to analyse accident, injury, compensation and occupational health and safety (OHS) data in order to identify high risk areas and resource losses associated with incidents and claims. Defence currently cannot analyse detailed information centrally on such accidents nor on the types of injury or illness being treated by ADF health services. At the time of audit, each Service differed in terms of the collection and maintenance of injury and illness statistical collections. In 1996 Defence developed and trialed a tri-Service form to collect accident and incident details for military personnel.

6.9 The Directorate of Defence Occupational Health and Safety set up an interim database in July 1995 to centrally collect the accident and incident details for military personnel and supplied the consolidated information to the Services to conduct their own analysis. Although these regular reports on critical injuries and illnesses have implications for operational readiness, it is understood that they are not linked to systems monitoring unit deployment status. For example, Navy operates a quarterly reporting system which monitors the availability of personnel against sea and shore billets and also notes the numbers medically unfit for sea service, by rank and by primary qualification. Another example is dental fitness, which is monitored in Army by a separate PC based system.

6.10 In 1994 Defence established a project to support the functions and management of OHS, military compensation and rehabilitation, as the existing systems were considered to be totally inadequate by functional managers. Known as DEFCARE, the project is aimed at developing a national computer system which links all administrative processing sites throughout Defence. The project has been through the tender evaluation, contract negotiation and software specification stages, with implementation to occur in 1997.

6.11 DEFCARE is designed to support the following OHS management and information requirements:

- incident notification, reporting and recording;

- OHS audits;
- hazard management;
- investigations; and
- annual reporting and consultation.

6.12 The Defence Financial Management Information System is a computerised, Defence-wide transaction processing facility which was implemented in Defence at the same time as Program Management Budgeting. DEFMIS records all Defence financial transactions on a computerised Defence ledger. The DEFMIS chart of accounts structure enables expenditure and commitment reports to be produced by account code (the type of transaction) and cost centre code (the area carrying out the transaction). These reports simply print out the financial ledgers and are not, therefore, management reports. DEFMIS was not designed to undertake detailed analyses of specific Service transactions. For example, the chart of accounts does not have an appropriate breakdown of codes which would make them useful for medical administrators, such as a breakdown by specialist category of the sessional account group. There are no ratio measures available such as cost per consultation, by Service, by type of medical service or by location. Also the invoice paying process does not necessarily match the patient treated with the claim for payment so there is not a rigorous record linking service, cost, patient and medical provider.

Health Systems Redevelopment Project

6.13 In 1989 the Defence Regional Support Review identified the need to centralise and computerise ADF health records. The Secretary of the Department of Defence and the Chiefs of Staff Committee agreed that the proposal should be examined by SGADF. In 1990 SGADF developed terms of reference for a proposed Health Systems Redevelopment Project (HSRP) to manage the resourcing and functional development of ADF health service information systems. HSRP was to provide for 'the identification, acquisition, implementation and ongoing development of a corporate information systems capability suitable for a comprehensive range of clinical activities and executive decision support requirements, including those applicable to the health record environment'.

6.14 A proposal for the project to be implemented in a series of phases was endorsed by VCDF in July 1991. The first phase was designed to create a general systems design, identify suitable commercial software, select and pilot a clinical package to automate the interface between patient and health practitioner and collect data on which to establish a business case for proceeding with Phase 2. Phase 2 was aimed at implementing any required customisation of the chosen package and establishing a mature system for outpatient care to be installed, over a period of some three years, at some 175 ADF health facilities Australia-wide. Phase 3 is a conceptual phase which will extend the Phase 2 information system to support inpatient and health care down to the operational tactical level.

6.15 Phase 1 was approved by the Force Structure Policy and Programming Committee (FSPPC) in March 1992 and is costed at \$2.8m (December 1995 prices).

A prime systems integrator was chosen in 1994 and a contract for Phase 1 was signed in November 1995. The Canberra Area Medical and Dental Unit was chosen as the site for the operational pilot, which was conducted from June to November 1996. There is currently a proposal to extend the pilot until the commencement of Phase 2.

6.16 At the time of audit fieldwork, a business case was being developed for approval to proceed with Phase 2. The business case was to be used for presentation to the FSPPC, an Information Technology Acquisition Council and in the development of the Phase 2 Major Capability Submission. If approved, Phase 2 would commence on 1 July 1998 and was costed at \$15.7m (December 1995 prices).

6.17 HSRP was initiated in 1990 and has therefore been under development for some seven years, and has yet to be implemented. The ANAO is concerned about the length of time that the project has taken so far. It is understood that a number of factors have contributed to the slow progress:

- although a relatively small system, HSRP has had to comply with Defence guidelines for major capability acquisitions, because of its tri-Service nature. The associated extensive approval and committee processes have precluded a timely system acquisition; and
- a lack of common medical standards, processes and documentation between the Services has created problems for development of HSRP.

6.18 The ANAO noted that HSRP and the DEFCARE system for OHS have been developed in isolation. These systems are not linked and will not necessarily be linked in the future. The ANAO considers that Defence should try to minimise duplication between HSRP and DEFCARE in terms of the data collection and analysis. The compatibility of HSRP with third party software has also been raised in relation to its ability to support databases such as the Defence Pharmacy Dispensing and Stock Management System (DEPHADS). The ANAO understands that HSRP currently does not have the ability to interface with DEPHADS and considers that this area warrants further consideration by Defence, as DEPHADS is the major source of information on ADF pharmaceutical usage. Resources may need to be applied to the further development of DEPHADS and its integration with HSRP.

6.19 The ANAO is aware of a number of aspects to HSRP that will have to be addressed if it is to meet the needs of the ADF health service and be accepted by users. Some of these areas were raised during the pilot study conducted at CAMU and include:

- the user friendliness of the system;
- the stages for recording consultations in HSRP do not fully correspond with steps followed by medical practitioners during a consultation;

- the relative efficiency of the system when compared with the manual consultation process - initially the consultation times in the CAMU pilot doubled due to the system requirements and the learning curve associated with a new system;
- interoperability with other ADF computer systems;
- internal module consistency; and
- the extent to which HSRP will meet the diagnostic and financial data needs of the ADF.

Conclusion

6.20 The health care management information systems that are in current use by the ADF are essentially manual systems with some computerised support. The systems are personnel intensive, largely unresponsive, suffer from duplication of effort, have inadequate financial management capability and result in inefficient patient administration and data gathering. These systems are distinctly single Service in nature, operate independently of one another and fail to capture and report the required level of information, particularly at the executive management level. This inadequate information base has severe implications for the administration of ADF health services, including the ability to support effective policy generation and resource planning and management. HSRP, a system which has the potential to solve many of these difficulties, has been under way for some seven years and is still at an early stage of development.

6.21 The ADF should enhance the quality of its health care management information in order to improve the efficiency and effectiveness of its health services, in particular in regard to:

- the level and cost of health care provided to members;
- monitoring the balance between the provision of restorative versus preventive medicine;
- operational and personnel planning;
- minimising the current inefficiencies in recording and extracting health care information;
- the utilisation of health care resources;
- the availability of demographic and epidemiological health trend data; and
- improving information consistency and validity within and between systems.

Recommendation No.14

6.22 The ANAO recommends that Defence accord a high priority to the development of effective ADF-wide health information systems, and examine options for accelerating the implementation of an electronic patient record with outpatient, inpatient, dental and financial management sub-systems (see also Recommendation No. 12).

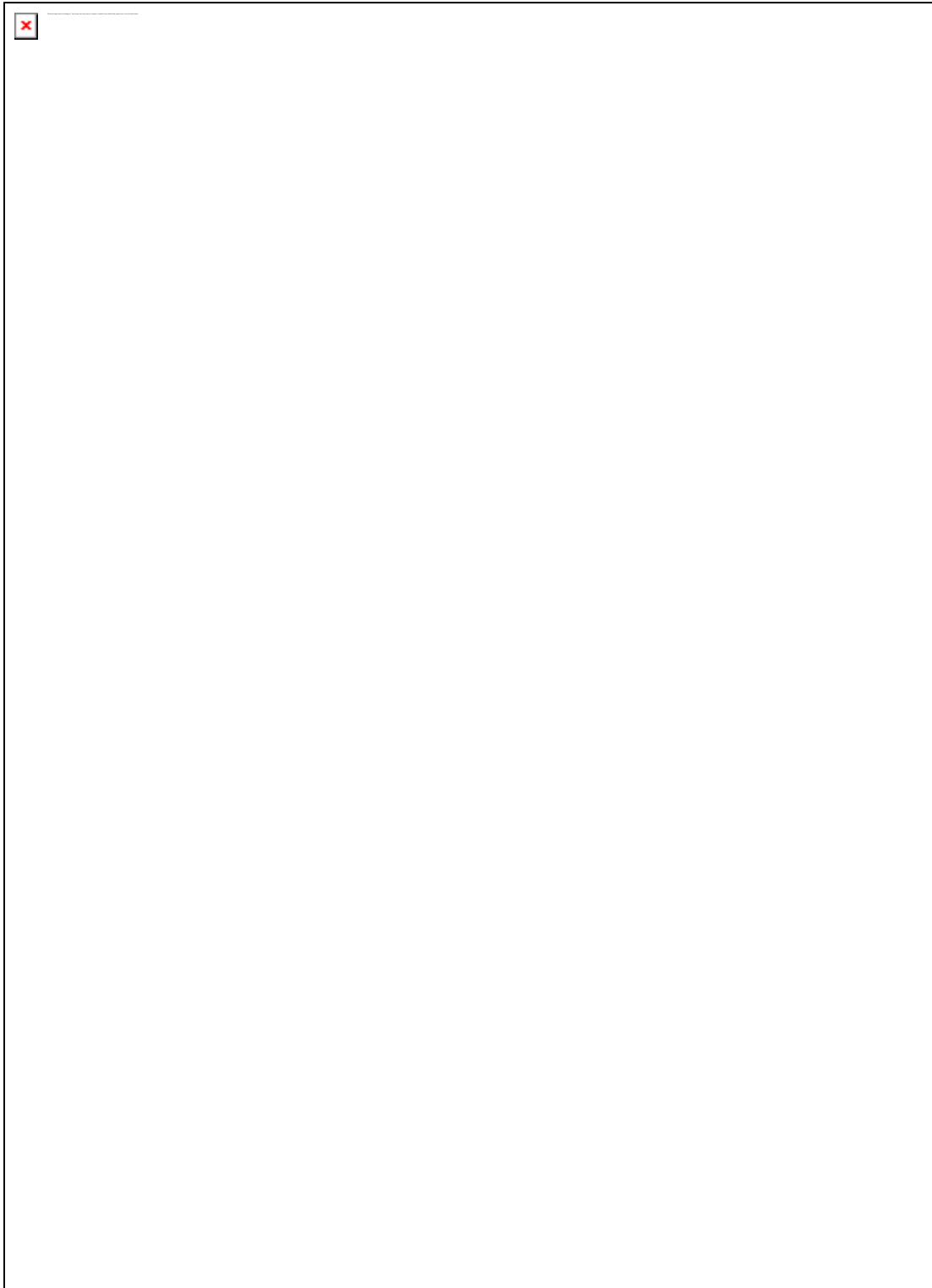
Defence Response

6.23 Agree. This is a flow-on recommendation of Recommendation 12. Recommendation 12 cannot be implemented without this.

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See similar concerns raised in United States General Accounting Office report, *Defense Health Program, Future Costs Are Likely to be Greater Than Estimated*, February 1997, GAO/NSIAD-97-83BR.

Appendix 1 - ADF Health Services Costing 1995-96



Appendix 2 - ADF Health Services Reviews

At the time of the audit a number of other reviews were being conducted that are likely to impact directly on the delivery of health services within the ADF. The

principal reviews identified by the ANAO are outlined below.

- The Director-General Commercial Support Program commissioned a consultant to identify the capabilities of the ADF health services and the resources used to deliver those capabilities. The purpose of this review was to identify those elements which could be achieved by the use of commercial and civilian support and maintenance where operationally feasible, practicable and cost-effective. The consultant's report was completed in June 1996 and the Surgeon General has been asked to provide a response to the recommendations.
- The VCDF issued a directive to the Surgeon General in July 1996 directing him to conduct a study to determine the appropriate organisational arrangements for the provision of health advice, at the strategic level, subsequent to the Service Headquarters becoming components of HQADF. At the time of audit the study had not yet reported.
- The VCDF also provided terms of reference to the former Surgeon General in May 1996 directing him to undertake a study of the non-financial personnel policies relating to the recruitment and retention of medical and dental officers in the ADF. The Attraction and Retention of Medical and Dental Officers study was to determine the optimal number of doctors and dentists required in uniform and to develop career structures.
- In October 1996 the Minister for Defence announced the appointment of a panel from the public and private sectors under the chairmanship of Dr M. McIntosh, to undertake a Defence Efficiency Review - a wide ranging review of financial and management practices in Defence. The terms of reference for the review included health and personnel services. The review was reported to the Minister in March 1997.
- In November 1996 the Deputy Chief of the General Staff (DCGS) agreed to terms of reference for a Commercial Support Program (CSP) review of Army medical and dental services. This review was to assess the opportunity for market testing of the services employed in peacetime within the Australian Support Area.

Appendix 3 - ADF Health Services Organisational Structures

The Office of the Surgeon General currently contains three branches:

- Operational Health Support Branch, which is responsible for policy, doctrine and technical control of operational health support, health training policy, coordination of strategic health planning and technical control of operational health planning in the ADF. The Branch also coordinates and exercises technical control over health intelligence and coordinates ADF research into operational health support. The Branch is headed by an Army Brigadier who,

as Director-General Army Health Services (DGAHS), is also responsible to the Chief of the General Staff (CGS) for advice to the Army on health matters. As Head of the Medical Corps, DGAHS has a role in relation to staff career development and training issues for Army health services personnel.

- Clinical Services Branch is responsible for policy, advice and technical control in relation to clinical health matters and coordinates clinical health research, medical and dental fitness surveillance, professional clinical training and appointment of clinical consultants. It also develops clinical health quality assurance programs and sets clinical standards. The Branch is headed by an Air Commodore who, as Director-General Air Force Health Services, is responsible to the Chief of Air Staff for advice on Air Force health service matters.
- Corporate Health Services and Programs Branch is responsible for coordinating development of the OSGADF Corporate Plan, ADF corporate health policy and input to higher level studies affecting the structure and staffing of ADF health services. It also develops policy and provides advice on priorities and the development and design of ADF health facilities as well as health resources and logistics, including health care entitlements and cost implications. In addition, the Branch includes the Directorate of Defence Occupational Health and Safety and the Directorate of Health Records and Information Systems. The head of the Branch is a Navy Commodore who, as Director-General Naval Health Services, provides advice on Navy single Service health matters.

Single Service health organisations

Health services assets come under the command of the Chief of Staff of each of the Services and resources are provided from within the single Service programs. Each Service provides a variety of health services according to the specialised needs and geographic location of its units. In all Services health care includes an operational role, health advice to commanders and local units, monitoring the health of personnel, provision of inpatient and outpatient medical and dental care of both a general and a specialist nature, pathology, radiology, physiotherapy, vaccination programs and the supply of pharmaceuticals, together with preventive medicine and occupational health.

The Chief of Naval Staff commands all Navy health services and receives technical advice from the Director-General Navy Health Services. Navy health services are located within the Maritime Command and Naval Support Command. The Fleet Medical Officer exercises technical and administrative control of the Fleet health services. Financial, technical and administrative control of shore based establishments rests with the Command Medical Officer, Naval Support Command. Command of each medical organisation within the Navy is vested in the commanding officer of the ship or base to which the organisation is assigned.

The Chief of the General Staff receives technical advice on health matters from the Director-General Army Health Services. Health services in Army are located in

Land Command and Logistics Command. A Colonel Health Services is the principal adviser to the Land Commander and is responsible for the planning and conduct of medical support to land operations and technical control of all Land Command medical units as well as direct command of all non-divisional medical units. Command of all other medical units within Land Command is vested in the commander of the formation or base to which that unit is assigned.

Command of Australian Support Area (ASA) medical and dental units is exercised by the General Officer Commanding Logistic Command, whose technical adviser is Colonel Health, Health Services Branch, Logistic Command, who also exercises technical control over base support medical units for the Director-General Army Health Services. Logistic Command exercises technical control over the regional health services support structure located in the Defence Centres in each capital city. The regional administration provides health advice to units, coordinates and manages health services funding and monitors the quality of health services. The Army field hospitals in Sydney and Brisbane are dual roled with both operational and support functions.

The Chief of Air Staff commands all Air Force health units with technical advice from the Director-General Air Force Health Services. At Air Headquarters the Senior Health Officer is the principal medical adviser to the Air Commander and is responsible for the Air Force operational health support capability, operational health planning and, through the exercise of technical control over Air Command health resources, providing health care within the Command. The Principal Medical Officer at Training Command is responsible for technical control of health services at all Air Force training organisations. Command of each medical unit is vested in the commander of the unit or base where it is located. Air Force hospitals have the responsibility of providing air transportable operational health support facilities.

Appendix 4 - Performance Audits in the Department of Defence

Set out below are the titles of the reports of the main performance audits by the ANAO in the Department of Defence tabled in the Parliament in the past three years.

Audit Report No.5 1993-94
Explosive Ordnance

Audit Report No.11 1993-94
ANZAC Ship Project - Monitoring and Contracting

Audit Report No.19 1993-94
Defence Computer Environment
Supply Systems Redevelopment Project

Audit Report No.27 1993-94
Report on Ministerial Portfolios, includes:
US Foreign Military Sales Program

(Follow-up audit)
Explosives Factory Maribyrnong

Audit Report No.2 1994-95
Management of Army Training Areas
(Follow-up audit)
Acquisition of Additional F-111 Aircraft

Audit Report No.13 1994-95
Australian Defence Force Housing Assistance

Audit Report No.25 1994-95
Australian Defence Force Living-in Accommodation

Audit Report No.29 1994-95
Energy Management in Defence
ANZAC Ship Project Contract Amendments
Overseas Visits by Defence Officers

Audit Report No.31 1994-95
Defence Contracting

Audit Report No.8 1995-96
Explosive Ordnance (Follow-up Audit)

Audit Report No.11 1995-96
Management Audit

Audit Report No.17 1995-96
Management of ADF Preparedness
(Preliminary Study)

Audit Report No.26 1995-96
Defence Export Facilitation and Controls

Audit Report No.28 1995-96
Jindalee Operational Radar Network Project

Audit Report No.15 1996-97
Management of Food Provisioning in the Australian Defence Force

Audit Report No.17 1996-97
Workforce Planning in the Australian Defence Force

Audit Report No.27 1996-97
Army Presence in the North