The Australian Defence Force Mental Health Screening Continuum Framework

Full Report

11 July 2014
Acknowledgements

This is the final report of the Mental Health Screening Continuum Framework project, undertaken by the Australian Centre for Posttraumatic Mental Health (ACPMH).

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# Table of Contents

Full Report ...................................................................................................................... i
Acknowledgements ...................................................................................................... ii
Table of Contents ........................................................................................................ iii
List of abbreviations ................................................................................................... vii
Executive summary ...................................................................................................... 9
Framework 1 ............................................................................................................... 10
Framework 2 ............................................................................................................... 11
Framework 3 ............................................................................................................... 11
Preface ......................................................................................................................... 12
A guide to this report ..................................................................................................... 13

**Chapter 1 – Background** ...................................................................................... 15

Screening and its relevance for the ADF .............................................................. 15
Key definitions ........................................................................................................... 15
Definitions of screening ......................................................................................... 15
What screening is not ............................................................................................... 17
The importance of evaluation ............................................................................... 17
ADFW Mental Health Strategy .............................................................................. 18
Advantages of screening ....................................................................................... 19
Disadvantages of screening ............................................................................... 20
Key points to consider from screening and its relevance to the ADF .................. 21

**Chapter 2 – Project methodology** ................................................................. 22

Methodology overview ......................................................................................... 22
Project initiation with the Defence Project Working Group ......................... 22
Systematic information gathering ................................................................. 22
Synthesis and interpretation .............................................................................. 23
Framework development ............................................................................... 23
Implementation ................................................................................................. 24

**Figure 1: Phases of developing the project** .................................................. 25

**Chapter 3 – Systematic information gathering** ........................................... 26

I. Review ADF mental health data reports .................................................... 26
Mental health within the ADF ........................................................................ 26
Current mental health screening in the ADF............................................................... 30

II. International consultations .............................................................................. 37
  Canada ...................................................................................................................... 37
  New Zealand .............................................................................................................. 40
  United Kingdom ......................................................................................................... 41
  United States of America............................................................................................ 43
  Key points to consider from the TTCP countries ....................................................... 44

III. Review recent literature .................................................................................. 46
  Timing of screens ....................................................................................................... 47
  Screening modality..................................................................................................... 48
  Acceptability of screening........................................................................................... 49
  Key points to consider from the literature ................................................................... 50

IV. Review measures ........................................................................................... 51
  Measures of validity ................................................................................................... 51
  Target mental disorders ............................................................................................. 52
  Screening instruments ............................................................................................... 53
  Key points to consider from the review of measures .................................................. 58

V. Stakeholder consultations ............................................................................... 60
  Summary of consultations .......................................................................................... 60
  Key points to consider from the national consultations ............................................... 65

VI. Review recent ADF reports ............................................................................. 65
  Synthesis and interpretation...................................................................................... 67
  What to screen for ...................................................................................................... 67
  Who to screen............................................................................................................. 67
  How to screen ............................................................................................................. 68
  What measures to use ............................................................................................... 69

Chapter 4 - Mental Health Screening Continuum Framework .................................. 70

General overview ...................................................................................................... 70

Guiding principles and definitions ........................................................................... 71
  Screening events ....................................................................................................... 71
  Standardised screening instrument battery .............................................................. 72
  Annual cycle .............................................................................................................. 73
  Tri-Service focus ...................................................................................................... 73
  Non-deployment related mental health screening .................................................... 74
  Special populations .................................................................................................. 74
  Face-to-face post-screen interview .......................................................................... 74

Framework 1 ................................................................................................................. 76

Figure 2: Mental Health Screening Continuum Framework 1 .................................. 77
Independent screening events ................................................................. 77
Dependent screening events ................................................................. 80
One time screening event .................................................................. 81
Framework 2 ....................................................................................... 83
Figure 3: Mental Health Screening Continuum Framework 2 .......... 83
Framework 3 ....................................................................................... 85
Figure 4: Mental Health Screening Continuum Framework 3 .......... 86
Final comments on the frameworks ...................................................... 86
Referral pathways ............................................................................... 87
Chapter 5 – Implementation guide ...................................................... 89
Figure 5: Implementation model overview ........................................... 90
Operation and implementation: The MHSC Framework in practice .... 91
I. System and organisational readiness ............................................... 91
Wellness Portal .................................................................................. 91
Defence e-Health System requirements .............................................. 93
Paper versions .................................................................................. 95
II. Stakeholder engagement ............................................................... 97
III. Ongoing support ......................................................................... 99
IV. Monitoring and review ............................................................... 100
Table 1: Engagement map ................................................................. 102
Costs and resource demands ............................................................... 104
One-off set up costs will include: ...................................................... 104
Running costs will include: ............................................................... 105
Resource burden ............................................................................... 106
The triennial face-to-face screening event ....................................... 107
The annual online mental health screen ........................................... 111
Face-to-face post-screen interviews following annual online screens 112
Recruit training screening ................................................................. 114
A phased approach to rollout .......................................................... 116
Stage 2: Commence development of the Wellness Portal ............... 117
Stage 3: Automate the screens .......................................................... 117
Stage 4: Standardise the post-screen interview for existing screening events 117
Stage 5: Preliminary training in enhanced screening processes ......... 118
Stage 6: Conduct further data analyses ............................................. 118
Stage 7: Integration with the Defence e-Health System .................... 118
List of abbreviations

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Full Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACPMH</td>
<td>Australian Centre for Posttraumatic Mental Health</td>
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<td>ADF</td>
<td>Australian Defence Force</td>
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<tr>
<td>AO</td>
<td>Area of Operations</td>
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<tr>
<td>ASD</td>
<td>Acute stress disorder</td>
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<td>ASDS</td>
<td>Acute Stress Disorder Scale</td>
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<td>AUDIT</td>
<td>Alcohol Use Disorders Identification Test</td>
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<td>AUDIT-C</td>
<td>Alcohol Use Disorders Identification Test – Consumption questions</td>
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<td>ChIO</td>
<td>Check In Online Screen</td>
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<td>CIMHS</td>
<td>Critical Incident Mental Health Support</td>
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<td>CMVH</td>
<td>Centre for Military and Veterans’ Health</td>
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<td>CO</td>
<td>Commanding Officer</td>
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<td>C-Req</td>
<td>Command Requested Screening Event</td>
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<tr>
<td>DOPHA</td>
<td>Directorate of Occupational Psychology and Health Analysis</td>
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<td>DSOMH</td>
<td>Directorate of Strategic and Operational Mental Health</td>
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<tr>
<td>DVA</td>
<td>Department of Veterans’ Affairs</td>
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<tr>
<td>FTE</td>
<td>Full time equivalent</td>
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<td>GHO</td>
<td>Garrison Health Operations</td>
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<td>GHQ</td>
<td>General Health Questionnaire</td>
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<td>JHC</td>
<td>Joint Health Command</td>
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<td>K10</td>
<td>Kessler Psychological Distress Scale</td>
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<td>MEAO</td>
<td>Middle East Area of Operations</td>
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<td>MEC</td>
<td>Medical Employment Classification</td>
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<td>MHPWS</td>
<td>Mental Health Prevalence and Wellbeing Study</td>
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<td>MHSC</td>
<td>Mental Health Screening Continuum</td>
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<td>MilHOP</td>
<td>Military Health Outcomes Program</td>
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<td>MO</td>
<td>Medical Officer</td>
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<td>MSI-R</td>
<td>Major Stressors Inventory – Revised</td>
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<td>OHSP</td>
<td>Operational Health Support Plan</td>
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<td>PCL</td>
<td>Posttraumatic stress disorder Checklist</td>
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<td>PC-PTSD</td>
<td>Primary Care PTSD Screen</td>
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<td>PDHA</td>
<td>Post-Deployment Health Assessment</td>
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<tr>
<td>Acronym</td>
<td>Definition</td>
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<td>PDHRA</td>
<td>Post-Deployment Health Re-Assessment</td>
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<td>PFA</td>
<td>Psychological first aid</td>
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<td>PHE</td>
<td>Periodic Health Examination</td>
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<td>PHQ</td>
<td>Patient Health Questionnaire</td>
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<td>PMKeyS</td>
<td>Personnel Management Key Solution</td>
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<td>POPS</td>
<td>Post Operational Psychological Screen / Post Operational Personnel Support</td>
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<tr>
<td>PreDHA</td>
<td>Pre-Deployment Health Assessment</td>
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<tr>
<td>PTSD</td>
<td>Post-traumatic stress disorder</td>
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<td>RACGP</td>
<td>Royal Australian College of General Practitioners</td>
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<td>RCO</td>
<td>Receiver Operating Characteristic</td>
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<td>RCT</td>
<td>Randomised controlled trial</td>
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<td>RtAPS</td>
<td>Return to Australia Psychological Screen / Return to Australia Personnel Support</td>
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<tr>
<td>SF-36</td>
<td>Short Form General Health Survey</td>
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<tr>
<td>SHE</td>
<td>Separation Health Examination</td>
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<td>SPS</td>
<td>Special Psychological Screen</td>
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<tr>
<td>TICS</td>
<td>Two Item Conjoint Screen (for alcohol and substance use problems)</td>
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<tr>
<td>TRiM</td>
<td>Trauma Risk Management</td>
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<tr>
<td>TSES-R</td>
<td>Traumatic Stress Exposure Scale – Revised</td>
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<td>TTCP</td>
<td>The Technical Cooperation Program</td>
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Executive summary

The Directorate of Strategic and Operational Mental Health (DSOMH) within the Australian Defence Force (ADF) contracted the Australian Centre for Posttraumatic Mental Health (ACPMH) to develop an enhanced mental health screening framework that is able to respond to changes in operational tempo and take into account the demands of operational and non-operational environments for maritime, land, and air forces. To achieve the outcome of a program of mental health screening for the entire ADF, ACPMH was commissioned to:

- review existing ADF mental health data reports
- undertake international consultations
- review the recent literature
- review measures for screening
- undertake stakeholder consultations
- review recent ADF reports.

In synthesising the information from these six inputs ACPMH has identified: (i) what mental problems or disorders should be screened; (ii) who should be screened; (iii) how they should be screened; and (iv) what measures should be used. The following conclusions have been drawn from this synthesis:

i. Four mental health problems or disorders should be targeted in the screening framework: PTSD, depression, problematic alcohol consumption, and suicide ideation.

ii. A universal approach of regularly screening all ADF members should be adopted.

iii. Integration of new and existing screening processes, without duplication, is critical to the successful implementation of the framework. Similarly, a balance of identifiable and anonymous screens is an important aspect, as is the design of a framework that allows for multiple entry points into the health care system.

iv. The Posttraumatic Checklist (PCL), Kessler Psychological Distress Scale (K10), and Alcohol Use Disorders Identification Test (AUDIT) have been identified as the key measures to utilise within the framework, along with the provision of a standardised post-screen face-to-face interview for those who screen above threshold.
Three potential MHSC frameworks have been developed based on the synthesis of the information from the six inputs. They are designed to maximise opportunities to identify mental health problems whilst minimising the screening burden on ADF members and the resource burden that is inherent with any screening process.

Key to all three framework options was that they operate on a 12-month cycle and have a tri-Service focus. The utilisation of a standardised screening instrument battery consisting of the PCL, K10, and AUDIT across all screening events is recommended (a ‘screening event’ is defined as a discrete opportunity to conduct mental health screening). Existing screening events have been maintained with some modifications in the three framework options. In any 12-month cycle, members who do not complete screening as part of one of the existing screening events are required to complete an identifiable online screen (except for Framework 2). Individuals who screen above threshold on this online screen receive a face-to-face post-screen interview, performed by either a Medical Officer or a mental health clinician. The face-to-face interviews utilise a standardised protocol which includes assessment of suicidality and lifetime trauma exposure. In conjunction with this, a voluntarily and anonymously accessed website allows the member to complete mental health screens at any time and receive feedback and simple advice about improving or maintaining their current psychological health.

An automated computerised processing system coordinates the timing of screening, tracks completion of each screen, collects data from members, collates and stores that data, activates a set of referral pathways for those who screen above threshold, and generates reports for specific target audiences.

**Framework 1**

This framework consists of ten screening events, seven of which are modified or enhanced versions of existing processes within the ADF, and three new events. As is the case with all framework options, the existing screening events take priority over the new events, such that if they occur within a given 12 month cycle then there is no requirement for completion of one of the new events. Existing events include processes such as Return to Australia Psychological Screen (RtAPS), Post Operational Psychological Screen (POPS), and critical incident screening. The new screening events include an anonymous and voluntary online mental health screen, an annual identifiable online mental health screen, and a triennial face-to-face interview.
Framework 2

This framework represents the most minimalistic approach to enhancing the current MHSC. Eight screening events are identified, seven of which are modified or enhanced versions of pre-existing events (same as in Framework 1), with just one new event – the anonymous and voluntary online mental health screen. The new screening event is designed to give members an opportunity to seek help if and when they choose, and provides members with the means to access information and support.

Framework 3

The most elaborate of the three frameworks, this framework adds another new screening event (on top of the ones added to Framework 1), a recruit training mental health screen, and also incorporates a substantially more sophisticated coordinating and reporting system.

Of the three framework options, ACPMH recommends the adoption of Framework 1. This particular framework provides an opportunity for all members to complete a screen and undertake a face-to-face interview on a regular basis, provides multiple entry points into the health care system, represents less of a burden than the most elaborate model, represents value for money by integrating existing and new systems (thereby minimising duplication), and provides an overall balance, without sacrificing opportunity.

A detailed guide to implementing the chosen framework is presented which focuses on system and organisational readiness, stakeholder engagement, ongoing support, and monitoring and review. Costs, resource burden, and a phased approach to rolling out the chosen framework are also discussed.

Overall, the frameworks developed for this project provide the structure and process required to conduct consistent, regular and high quality psychological screening. The frameworks are flexible and ensure that those who are not screened as part of existing processes do not miss out. ACPMH recognises that no screening process is without its challenges; however the framework recommended in this project should optimise the chances of early identification of psychological problems and provide a stepping stone for pathways to appropriate early intervention and care for all members of the ADF.
Preface

Military personnel within the Australian Defence Force (ADF) confront many challenges to their mental health and wellbeing, including exposure to a wide range of psychological, occupational and physical stressors that are unique to service within the armed forces. These stressors may occur while on overseas deployments as well as in non-operational environments. They may be described as potentially traumatic events when the member is exposed to death, threatened death, actual or threatened serious injury, or actual or threatened sexual violence. Other non-traumatic stressors may include the kinds of events to which anyone can be exposed (e.g., the ill-health of loved ones), as well as those more typically associated with the military lifestyle such as absence from family and friends and adjustment difficulties on return from deployment. Even periods of low deployment tempo can be stressful for some, with a lack of job fulfilment and purpose potentially setting in. Taken together, these stressors may accumulate over time and create a unique occupational environment which may challenge a member’s mental health.

The ADF takes a holistic approach to wellbeing by recognising that it has a responsibility for the member’s physical and mental health. In early 2014, the Joint Health Command (JHC) issued a tender to develop an enhanced mental health screening program in recognition of the fact that the existing screening program needed to be reviewed and updated for the current Defence environment. Specifically, the JHC was looking for a program that would be responsive to changes in operational tempo and that would take into account the demands of operational and non-operational environments for maritime, land, and air forces. Note that although consideration of screening needs for both reservists and cadets is outside the scope of this project, reservists are currently included in the same mental health screening processes as full-time personnel and thus will likely be included in the enhanced screening program. The Australian Centre for Posttraumatic Mental Health (ACPMH) was the successful tenderer in this process and during March to June 2014 developed the Mental Health Screening Continuum (MHSC) Framework.

The starting point for the development of the MHSC Framework was the Best Practice Mental Health Screening in the Australian Defence Force report. This report was
generated from the Centre for Military and Veterans’ Health (CMVH) Think Tank on mental health screening commissioned by the ADF. It presents a detailed overview of the literature relevant to mental health screening in the ADF, along with a set of recommendations. This current MHSC project has built upon the foundation of that report by reviewing the relevant literature published since 2009. In addition to this literature review, the MHSC project has included extensive consultation and international benchmarking. Key stakeholders were identified by the ADF and semi-structured interviews were conducted either face-to-face or over the telephone. Key military researchers and policy makers from the US, UK, Canada, and New Zealand were also interviewed in an international benchmarking process.

**A guide to this report**

This report comprises a number of sections that are designed to be read in order, as each section builds on information presented in the last. There are five core components of the report, as follows:

- **Background information** – This section provides a background to the development of the MHSC Frameworks. It includes a discussion of the concept of screening and its relevance to the ADF, including definitions, advantages, and disadvantages

- **Project methodology** – provides an overview of the methodology used to develop the frameworks

- **Systematic information gathering** – provides a description of the data collected to help inform the framework. Data included:
  - ADF specific data: This included an investigation of what screening should target, with reference to the prevalence of and risk factors for mental disorders in the ADF, and an examination of how these disorders are identified in the current ADF screening program;
  - Information about screening practices from key international defence forces: This included a summary of the ways in which screening is conducted in other countries (i.e., Canada, New Zealand, UK and US) and of recent academic publications relevant to screening in these countries;
- Information from recent publications in the area of mental health screening within defence forces;
- A review of screening measures;
- Consultations with key stakeholders. This synthesis of consultations conducted with key stakeholders and service providers within the ADF addressed various approaches to screening and potential areas for improvement;
- A review of relevant ADF commissioned mental health reports;
- A summary and interpretation – this short section brings together all the data collected and interpret what it means for the development of the frameworks.

- **Mental Health Screening Continuum frameworks** – Based on the background information outlined above, this section of the report proposes three screening frameworks and includes:
  - A set of guiding principles and definitions
  - A description of three frameworks
  - A description of referral pathways that underpin the frameworks.

- **Implementation guide** – The final section of the report provides an overview of issues to consider in the implementation of the proposed frameworks, as well as cost and resource demands. It also includes a description of a staged rollout of the frameworks.
Chapter 1 – Background

Screening and its relevance for the ADF

Key definitions

A number of definitions are useful to underpin the MHSC Framework. To start with, the World Health Organisation's definitions of mental health and mental disorder have been utilised.

<table>
<thead>
<tr>
<th>Mental health</th>
<th>Mental disorder</th>
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<tr>
<td>“A state of well-being in which every individual realizes his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to her or his community” ³</td>
<td>“A clinically recognizable set of symptoms or behaviour associated in most cases with distress and with interference with personal functions” ⁴</td>
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Definitions of screening

The Australian Health Ministers' Advisory Council defines screening as “The presumptive identification of unrecognised disease or defects by means of tests, examinations, or other procedures that can be applied rapidly”⁵

Key to this definition is that screening is the administration of tests to identify unrecognised disease (e.g., mental disorders), and that screening is simple and easy to administer. It is important to note that screening can often be embedded into a more elaborate process that accomplishes many different roles. For example, the current ADF Return to Australia Psychological Screen (RtAPS) embeds screening into a larger process of psychoeducation, validation of operational experiences, brief operational debriefing, and in some cases, early intervention. It is important to note that, within the MHSC Framework, the word screening refers to strategies to detect actual or potential clinical or sub-clinical disorder, and that these other processes, while important, are not considered as screening under this definition.
The UK National Screening Committee defines screening as the “process of identifying apparently healthy people who may be at increased risk of a disease or condition. They can then be offered information, further tests and appropriate treatment to reduce their risk and/or any complications arising from the disease or condition”\(^6\).

It is important to understand what the word *risk* means in this definition. Some screening instruments identify individuals who may be at risk of having current psychopathology. That is, the screens identify those who might have a disorder or sub-threshold disorder, with the intention that individuals who screen positive are then referred for a more detailed diagnostic assessment by a health professional. Screening tools are designed to indicate the presence of significant symptomatology, not to make a formal diagnosis.

Other screens may identify individuals at risk for developing a disorder at a later point in time. However, this approach quickly becomes problematic as there are an almost infinite number of risk factors from which to choose. These factors interact to heighten or lower risk for disorder and may act to differentially affect risk across disorder categories. Potential indicators of risk for a given psychiatric disorder may include factors such as demographics (e.g., age, gender, marital status), military service (e.g., service, rank, occupational stressors), psychosocial variables (e.g., social support, education, socioeconomic status), genetics, family history of disorder, and so on. Screening for risk is likely to be less accurate than screening for existing symptomatology, resulting in a significantly higher proportion of false positives and placing unnecessary burden on the service system. To take posttraumatic stress disorder (PTSD) as an example, even the best predictors contribute relatively little to the likelihood of diagnosis and predict the disorder to different degrees (or not at all) across different subgroups of the population\(^7,8\). Furthermore, as noted in the CMVH Think Tank report, basing mental health screening on vulnerability factors such as those described above has the potential to be used in a discriminatory way and, therefore, is not recommended. Given the issues outlined above, the MHSC focussed on screening for current psychopathology rather than attempting to identify risk for future disorder.

While the MHSC Framework aimed to develop a set of formal screening processes, it is important to recognise that there are many other ways in which an individual may identify that they are experiencing mental health difficulties and should access care. These informal processes may include families, friends, and peers helping the member identify
that he or she has a problem. This type of informal screening is of great relevance in organisations such as the ADF that place a high emphasis on “looking after your mates”. A commander, manager, or representative can also order a member to undergo psychological assessment or gain psychological support through administrative referral. Additionally, a Medical Officer (MO) can refer a member for psychological support or assessment through medical referral. Of course, members may also self-identify that they are experiencing mental health difficulties and request assistance. These informal processes of identifying members who are struggling with psychological adjustment issues are of primary importance in early detection and access to care. The enhanced MHSC Framework is in no way meant to supersede these other identification and referral pathways but, rather, to complement them.

What screening is not

While screening may play a number of roles, in the context of the MHSC Framework it is important to define what screening does not aim to do. The mental health screening discussed in this framework is not designed to be used for selection purposes. That is, it is not intended to identify fitness for carrying out particular roles or fitness to deploy. Similarly, the use of mental health screening in the initial military recruitment process for either regulars or reserves was not within the scope of this project and, therefore, has not been addressed within the MHSC Framework. Finally, screening is not surveillance. While it may be possible to use aspects of the mental health screening data to chart the psychological health and wellbeing of units, or indeed the force as a whole over time, this was not the aim of the current project.

The process of screening in the context of this framework is simply to identify members who may benefit from mental health support.

The importance of evaluation

As will become clear from the discussion below, the utility of screening in reducing morbidity and facilitating treatment access in military populations remains unproven. It
is also important to recognise that no screening process will be able to detect all cases – particularly in the military population where there may be powerful drivers to not acknowledge psychological ill-health. It is, therefore, essential to incorporate an evaluation process into the MHSC Framework to establish whether the goals of the framework are being achieved. A clear understanding of the design, implementation, and expected outcomes of this evaluation process should be in place from the outset.

**ADF Mental Health Strategy**

For screening to be worthwhile, it must be considered as part of an integrated mental health system. Studies with community samples have repeatedly shown that the administration of screening questionnaires in the absence of appropriate follow-up has no effect on the identification and management of mental health conditions such as depression\(^\text{10-12}\). Therefore, screening is only effective as part of an appropriately resourced system-wide approach to the identification, assessment, and treatment of mental disorder.

In recognition of this, it is important to locate the MHSC Framework within the broader mental health context of the ADF. The 2011 ADF Mental Health and Wellbeing Strategy identified six strategic objectives:

1. Promotion and support of mental fitness within the ADF
2. Identification and response to mental health risks of military service
3. Delivery of comprehensive, coordinated, customised mental health care
4. Continuous improvement of the quality of mental health care
5. Building of an evidence base about military mental health and wellbeing

While screening fits explicitly into Strategy Objective 2 – the identification and response to mental health risks of military service – it should be acknowledged that screening is just one part of a process to create a mentally healthy workforce. Each of the ADF mental health strategy objectives work together to help create an environment where optimal mental health is maximised given the demands placed on the military workforce. A key goal for many defence forces is to ensure that military personnel who need help for mental health problems have ready access to that help and feel free to seek help in...
the military environment. This speaks to the military’s role in creating an environment where members are psychologically literate, barriers to care are minimal, and mental health stigma is low. Thus, while a screening framework is an important part of a comprehensive approach to creating a mentally healthy workforce, it is just one part and should always be seen as such.

**Advantages of screening**

Screening for mental disorders within the military environment has been relatively contentious in recent years. There have been a number of high profile debates in the research literature about whether or not to screen within a military context (particularly in reference to screening for vulnerability, with less contention around post-deployment or primary care screening). It is, therefore, important to acknowledge that there may be advantages and disadvantages to mental health screening, and that these need to be considered in light of developing an enhanced screening process.

The primary advantage of screening is to facilitate early intervention, thus enabling symptoms and disorders to be addressed before they become entrenched and cause broader psychosocial problems for the individual. Although exact figures for Australia are not available, in the US the economic costs of posttraumatic stress disorder and major depression for deployed service members has been estimated at more than $6.2 billion, a large proportion of which is thought to be attributable to lost work productivity. Research with depressed civilian samples has shown that effective treatment not only results in improved mental health for patients, but better outcomes for employers in terms of job retention, hours worked, productivity, and co-worker morale. However, it is often the case with mental disorders that many years can pass between the onset of disorder and the seeking of care. In Australian military samples, for example, the average time between onset of disorder and seeking of treatment is around four to seven years. The aim of screening is to identify these cases (which have not yet presented to mental health services) and to facilitate pathways to care. Evidence from non-military samples suggests that screening can improve both the identification of depressed patients and patient outcomes.

There are several other potential advantages to mental health screening in military populations, just a few of which will be briefly mentioned here. A systematic approach to
psychological screening has the potential to improve ADF members’ awareness and insight into their own wellbeing, as well as that of their colleagues. It has the potential to reduce stigma by making these inquiries part of the “norm” – it becomes routine in the same way as one would monitor physical health. It has the potential to facilitate pathways to care – even if the person does not openly admit to problems, the screening process will provide guidance on self-care and how to seek treatment. It has the potential to promote early recognition and early intervention, minimising the duration of illness and optimising functioning. Finally, an organisation that knowingly puts personnel in situations that carry a high risk of psychological harm has a duty of care to monitor the health and wellbeing of their employees.

**Disadvantages of screening**

One key issue for military environments is the risk of stigma that may accompany a positive screen. Stigma is defined as “negative and incorrect attitudes resulting from the acceptance and internalisation of prejudice or negative stereotyping”, and can be categorised as public stigma (i.e., a generalised negative societal attitude towards people with mental health issues) and self-stigma (i.e., where these attitudes are internalised and believed by the individual) \(^{19}\). There is no doubt that a degree of stigma continues to surround mental health problems within military environments, as well as in the general population. Members are often concerned about the potential implication of being identified with a mental disorder for deployment activities, as well as for current and future employment \(^{20,21}\). Thus, concerns about stigma are likely to influence the accuracy of mental health screens (truthfulness of reporting). It is essential that any mental health screening framework also provides regular opportunities for members to seek help when they are ready in a manner in which they feel comfortable (so there must be a number of entry options into the health system). The existence of stigma, in and of itself, is not a scientifically valid reason not to put into place an enhanced mental health screening framework, but it must be placed within a broader and more comprehensive mental health strategy that targets mental health stigma, bearing in mind both public and self-stigma as these are likely to differentially affect the efficacy of different types of screening processes.
As screening is designed to identify people who “probably” have a health condition versus those who “probably” do not, the process is necessarily over-inclusive and a number of individuals without disorder may be picked up as requiring further follow up. These “false positives” may create an unnecessary burden on the mental health workforce by artificially inflating the number of people referred for further assessment. Thus, a mental health screening framework needs to be structured in a way that minimises burden on health workers by balancing the unnecessary load of false positives with the risk of false negatives. This issue is discussed in more detail below.

Finally, in the context of financial, time, and workforce constraints and other limited resources available to defence services, the cost implications of a screening framework need to be considered as a fundamental component of setting up a screening framework.

**Key points to consider from screening and its relevance to the ADF**

- Screening in the developed frameworks will refer to strategies designed to detect actual or potential clinical or sub-clinical disorder and will not attempt to identify risk for future disorder.
- The MHSC frameworks will comprise formal screening processes, but informal processes must be recognised (including Command, manager or representative requested assessment, peer support, and member self-led assessments).
- The primary goal of screening is not workforce surveillance, but provision must be made in the frameworks for the generation of reports on group data for Command and leadership.
- An evaluation process should be a core part of the frameworks from the outset.
- The frameworks should be built in a manner that allows multiple entry points into the health care system.
- In order to minimise the risks of missing those who do have problems (false negatives) and identifying those who do not (false positives), high quality screening instruments should be chosen.
Chapter 2 – Project methodology

Methodology overview

The aim of this project was to develop a MHSC framework for the whole of the ADF. The project consisted of five phases which are represented below in Figure 1. Below is a brief summary of each phase.

Project initiation with the Defence Project Working Group

- ACPMH worked closely with the Defence Project Working Group (WG) in Canberra to first establish the project and discuss the project plan, then to get feedback about ideas and progress for the duration of the project.
- ACPMH and the WG identified a list of primary stakeholders and service providers involved in mental health screening in the ADF to be consulted.

Systematic information gathering

Review ADF mental health data reports

- A number of data reports specific to mental health screening in the ADF including the Mental Health Prevalence and Wellbeing Study MHPWS were reviewed.

International consultations

- ACPMH met with and interviewed members of The Technical Cooperation Program (TTCP) Technical Panel 13 – Psychological Health and Operational Effectiveness to identify the nature, frequency, referral pathways and evidence to support the use of mental health screening within their services. This also included a discussion about differences in screening methods and modalities across Services (Navy, Army, Air Force), and information about gaps and redundancies, including identification of barriers to effective screening.

Review of recent literature

- To inform the Framework development, ACPMH reviewed a large amount of literature including both "grey literature" reports that the ADF and others have published in this area, and recent developments in the peer reviewed literature.
Review of measures

- In undertaking a review of screening measures, ACPMH appraised a large number of ADF mental health data reports.
- ACPMH synthesised the information on measures from the international and stakeholder consultations.

Stakeholder consultation

- ACPMH conducted a total of 48 consultations with primary stakeholders and service providers. The aim of these consultations was to audit and review the current mental health screening of ADF personnel and to identify any gaps that may exist. Needs of specific groups were discussed. Consultations were undertaken by teleconference or face-to-face.

Review recent ADF reports

- ACPMH reviewed a number important reports recently commissioned by ADF that were relevant to mental health and screening.

Synthesis and interpretation

- ACPMH synthesised the data collected during the systematic information gathering phase and this informed the development of the three MHSC frameworks.

Framework development

- ACPMH developed three frameworks based on the information collected above which were guided by two aims:
  o minimise the screening burden on ADF members while maximising opportunities to identify mental health problems
  o minimise the resource burden that comes with the administration of mental health screening processes, while still achieving the aim of developing a mental health screening continuum.
Implementation

- An implementation plan was developed that included: (i) organisational and system readiness, (ii) stakeholder engagement, (iii) on-going support for change, and (iv) monitoring and review.
Figure 1: Phases of developing the project

- Project initiation
- Systematic information gathering
  - Review ADF mental health data reports
  - International consultations
  - Review of recent literature
  - Review of measures
  - Stakeholder consultation
  - Review recent ADF reports
- Synthesis and interpretation
- Framework development
- Implementation
Chapter 3 – Systematic information gathering

This chapter provides detailed information from multiple sources that formed a basis from which to build the MHSC. First, key mental health issues within the ADF are discussed, along with a summary of current ADF mental health screening practices. In section two, information is presented regarding the way in which allied Defence Forces address this issue, with particular reference to the TTCP. Third, the available literature from both peer reviewed and “grey” report sources is summarised. In the fourth section, information is provided about potential measures for use in mental health screening. Fifth, information obtained from key stakeholders involved in ADF mental health screening is presented. Section six reviews recommendations from two key reports on mental health and screening in the ADF. The chapter concludes with the key considerations for the development of the MHSC framework.

I. Review ADF mental health data reports

Mental health within the ADF

In order to develop and focus a Mental Health Screening Continuum Framework it is important to know what disorders to target. Knowing the prevalence of mental disorders within the ADF is an important part of this equation, and the 2010 MHPWS provides this information. Generally speaking, mental health in the ADF is similar to the general Australian community, except that serious mental illnesses (such as schizophrenia) are rare, with all members receiving a detailed face to face mental health assessment during the recruitment and selection process. The MHPWS found that, over their lifetime, ADF members are significantly more likely than a demographically matched sample of the general Australian community to suffer from at least one mental disorder (54% versus 49%), with this difference primarily due to an increased prevalence of affective disorders (e.g., depression). Looking at past-year mental health, approximately one in five individuals in both the ADF and general community are affected by at least one disorder. Overall, anxiety disorders were the most prevalent in both the community and ADF samples.
Despite this overall similarity, closer examination revealed significant differences between the two populations. Specifically, depressive episodes (6% vs 3%) and PTSD (8% vs 5%) were more prevalent in the ADF, and ADF members were also more likely to report suicidal ideation (i.e., thoughts about suicide; 4% vs 2%). On the other hand, current alcohol use disorders were more common among members of the general population, affecting eight percent of age- and gender-matched Australians compared to five percent of ADF members. However, self-report data indicated that, despite not reaching diagnostic thresholds, risky alcohol use is common in the ADF and lifetime rates of alcohol use disorder were slightly higher than in the general community. PTSD was also the most prevalent of all mental disorders and the most prevalent anxiety disorder. Depression was the most prevalent affective disorder within the ADF.

Breaking the ADF down into its constituent services, affective and anxiety disorders were more common among Army than Air Force personnel, while Navy members were most likely to be diagnosed with an alcohol use disorder. There were no differences across services in the prevalence of PTSD. Separating ADF members by rank, the results of the MHPWS indicated that there were no differences in the prevalence of affective or alcohol use disorders, but anxiety disorders were significantly less common in officers than non-commissioned officers or other ranks.

Deployment as a risk factor

The MHPWS and Middle East Area of Operations (MEAO) studies have shown conclusively that deployment in itself is not a risk factor for the development of mental disorder. The vast majority of ADF members who deploy do not report any disorder either before or after deployment, and members deployed to the MEAO reported generally better mental health than the ADF as a whole. Further, the majority of members who suffer from a mental disorder either have never deployed or develop the disorder prior to deployment. Van Hoof and her colleagues report that, of members with a lifetime anxiety disorder, only 19 percent reported peri- or post-deployment onset. Affective disorders were slightly more likely to develop at or after deployment (24%), and alcohol use disorders were the least likely to do so (9%).

While deployment overall is not a high risk event, certain types of deployment and certain events experienced during deployment are associated with an increased likelihood of disorder. For example, post-deployment mental health symptoms are more
common among ADF members deployed in a combat role or who operated outside a main support base, among those who report a low level of unit cohesion or poor family support during deployment, and among those who experience a combat injury or a high number of traumatic events. There are also a multitude of deployment, personnel, and disorder-specific variables which interact to increase risk. For instance, handling or seeing dead bodies was associated with PTSD in members deployed to Afghanistan but not Iraq, while cumulative time deployed to the MEAO was associated with PTSD but no other diagnoses. Finally, there is some evidence that first and sixth deployments are particularly high risk in terms of the onset of a new mental disorder.

The prevalence of the above risk factors is variable across services. For example, the MEAO study found that Army members were exposed to a higher number of traumatic events than either Navy or Air Force. Navy members deployed for eight months or more on their most recent deployment were at increased risk of PTSD, but this effect was not evident for members of the Army or Air Force.

### Trauma exposure

Exposure to traumatic events (those involving actual or threatened death or injury to self or others) is a risk factor for a range of mental health problems. ADF members have significantly higher rates of trauma exposure than their civilian counterparts, with 90 percent experiencing at least one traumatic event at some point in their lives compared to 73 percent of the general community. Importantly, this includes a wide range of events that may occur prior to or during a member’s military service, and may or may not be deployment-related. Indeed, the rate of trauma exposure is similar for both deployed and non-deployed members, although there are some differences when looking at specific types of events. For example, deployed members, as would be expected, are more likely to report participation in combat, while non-deployed members are at increased risk of being involved in life-threatening accidents.

The MHPWS found that the prevalence of trauma exposure across the three services within the ADF was broadly similar, with 88 percent of Navy, 89 percent of Air Force, and
92 percent of Army personnel reporting at least one lifetime traumatic event, although there were some differences in the types of trauma exposure experienced.

**Service use**

Each year, 18 percent of ADF members seek help for stress, emotional, mental health or family problems. This includes members with and without a diagnosable mental disorder. The proportion of members affected by mental health problems who seek care differs across disorder; service use is most common among those with depression, with approximately two thirds of this group receiving treatment in a 12 month period, compared to just 15 percent of those with an alcohol use disorder. Increasing severity of disorder is associated with help-seeking, which suggests that those in early stages of disorder may be less likely to seek help. This is unfortunate given that these individuals may also be the most likely to benefit from intervention, but also less likely to be identified by colleagues, family, and superiors as suffering from a mental health problem. There is some evidence that it is not the disorder itself but the degree to which symptoms impair an individual’s functioning, particularly in his or her home life, that is most closely related to treatment-seeking.

Interestingly, personnel who had been deployed were significantly more likely to seek help, suggesting that post-deployment screens may have value in enhancing members’ awareness of their own mental health and overcoming barriers to care.

**Barriers to care**

Across the ADF, decreased deployability is the most commonly perceived barrier to mental health care, with 37 percent of members reporting that this was a concern. Air Force personnel were less likely to report concerns about stigma and barriers to care than either Navy or Army. Personnel who had been deployed were more likely to perceive that help-seeking would prevent them from being deployed, but were also more likely to seek help, perhaps indicating the success of post-deployment screening and psychoeducation in addressing barriers to care.

Members with a mental health problem are significantly more likely to report stigma and other barriers to care than members with no disorder; however, these issues prevented treatment-seeking for only a minority, and help-seeking remained more likely than not among members with disorder who reported stigma/barriers to care.
In developing the MHSC Framework the minimisation of barriers to care and stigma need to be addressed. This will involve consideration of regular opportunities for members to seek help and in multiple ways (for example, through a website or directly through a medical officer).

**Key points to consider from mental health within the ADF**

- Prevalence of disorder is relatively high among ADF personnel – as high as the general community – and is likely to affect operational effectiveness.

- Depression, PTSD, suicide ideation, and risky alcohol use show higher prevalence rates in the ADF compared to the general Australian community. Mental health screening should prioritise these conditions.

- Both deployed and non-deployed populations need to be addressed in the frameworks as elevated rates of disorder are not specific to deployment.

- Barriers to care and the potential impact of stigma must be taken into consideration when developing a screening framework.

**Current mental health screening in the ADF**

Currently there are a number of time points or key events which trigger mental health screening within the ADF, with around 8,000 members screened every year (Searle, 2013). Most mental health screening takes place around deployment and after a critical incident. Participation of Defence members in psychological screening, both on deployment and returning from deployment is mandated by the Operational Health Support Plan (OHSP) relating to that operation. An alcohol use screen is also a part of the routine physical health checks which occur between three and five years for each member.

**Types of screens**

**Return to Australia Psychological Screening (RtAPS)** is provided to all ADF members who are force-assigned to an Area of Operations (AO) and nearing the completion of their tour. Ideally, RtAPS is provided during the force extraction process in

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1Information in this is sourced from documents in the Department of Defence, including the Annexes to Chapter 34 of PSYMAN, HD810, GP16_25.
the AO, at a staging area, or on a ship as it is en route back to Australia (before returning to Australia). Psychologists and psychological examiners within the AO or onboard ship conduct RtAPS for all personnel returning from the AO.

The aims of the RtAPS process are to:

1. document traumatic exposure
2. document and manage current psychological status
3. provide advice and education to facilitate a smooth post-deployment transition
4. provide information to Command on the psychological health of the deployed force.

The process includes:

1. The provision of a psycho-educational brief (conducted as a group presentation and/or as part of the individual screening interview) covering four key themes:
   a. an introduction to RtAPS aims and process, confidentiality issues, and data use
   b. readjustment to family life, including reactions of partner, children, and friends
   c. readjustment to work, including relationships with peers and career decisions
   d. health issues, including post-deployment fitness, tobacco, and alcohol use.

2. The RtAPS questionnaire administration which includes a core set of screening instruments designed to document and assist in the management of mental health, as well as a set of Command interest and research instruments requested by Command, or which are part of an approved research program. The core screening instruments are: (1) the Deployment Experiences Questionnaire, including data on operational tempo and unit climate; (2) the Kessler Psychological Distress Scale K10: 34 (with a cut-off score of 20); (3) the Traumatic Stress Exposure Scale – Revised (TSES–R); (4) the Major Stressors Inventory—Revised (MSI–R); and (5) the Posttraumatic Checklist PCL: 35 (with a cut-off score of 30). (Note that several of these instruments are described in more detail below).

3. A one-on-one semi-structured screening interview which covers the following (as a minimum): introduction, deployment experiences, potentially traumatic events, coping strategies, current symptoms, homecoming and adjustment issues, screening questionnaire summary, and psycho-education.
4. Feedback of summary information of questionnaire data to Command (as communicated by ADF this information is only provided to the Commanders of larger contingents).

In addition to identifying individuals at risk and arranging referral for more detailed assessment, data gained from the RtAPS interview and questionnaire is captured in order to assist the senior psychologist to provide a dot-point brief to the deployed element commander and to enable trend analysis in the future. Data from land-based operations are sent to 1 Psychology Unit and then distributed to Army Headquarters and Joint Health Command, with the exception of Special Forces personnel data, which are sent to the Staff Officer Grade 1 Psychology Special Operations Command. Data arising from maritime operations is managed jointly by Navy Psychology East and Navy Psychology West.

In the case of a short deployment (30 days or less) to either warlike or non-warlike operations, ADF members are required to complete a risk-indicated RtAPS. These members will be given the RtAPS screening questionnaire (content detailed above) and, based on the clinical thresholds of the screen, may enter the normal RtAPS and Post-Operational Psychological Screening process if scores are within the moderate or higher range for psychological risk. Should the RtAPS questionnaire scores indicate that the member is in a low psychological risk category, there is no requirement for completion of the RtAPS interview or POPS (detailed below). Regardless of screening scores, any member may still elect to undertake the full suite of psychological screening.

**Post Operational Psychological Screening** is a mandatory process to be conducted for all ADF members who were eligible to receive RtAPS (regardless of whether they did or not). The POPS process is normally conducted within a three to six month time frame following a member’s return to Australia from an overseas deployment, although the psychologist conducting the RtAPS is able to recommend a more immediate follow-up, such as “immediate referral” or “non-routine POPS”.

The POPS process aims to identify individuals who have not reintegrated into occupational, familial, or social functioning and/or are demonstrating signs of adverse post-trauma responses. This process comprises:
1. the administration of a questionnaire including the K10, PCL (both with the same cut-off scores as in RtAPS), Alcohol Use Disorders Identification Test AUDIT, with a cut-off score of 8, and additional Command and research questionnaires as approved by the senior psychology asset for the services

2. a one-on-one semi-structured psychological screening interview that should include an introduction and a review of the member’s deployment experience, homecoming, reintegration, current symptoms, and psychoeducation. The interview should conclude with any referral or action recommendations.

Within Australia, psychologists and psychological examiners will usually conduct POPS for military personnel having returned from deployment (psychological examiners may conduct POPS where the RtAPS recommendation is “POPS at 3–6 months”, with a registered psychologist conducting the POPS for all other RtAPS recommendations). The exception is where a member is already in a pre-existing therapeutic relationship with a psychologist, in which case that psychologist may assume responsibility for administering a POPS to that member.

POPS documentation is managed in the following way:

1. The Notification Form is forwarded to the unit commander and medical section responsible for that member. A copy is also provided to the member.
2. Completion of the POPS is recorded on the Personnel Management Key Solution (PMKeyS) Operational Cube.
3. POPS questionnaires are scanned using Teleforms, or data is entered into an Excel spreadsheet, and forwarded to Navy Psychology East, Navy Psychology West, or 1 Psychology Unit as appropriate.
4. Questionnaires and write-up are placed on the member's psychology file and Unit Medical Record (UMR).

A Special Psychological Screen (SPS) may occur for individuals and groups whose operational role routinely exposes them to intense operational stressors, critical incidents, and/or potentially traumatic events while on deployment. The intent of this screen is to aid the monitoring of mental health status of such individuals and groups and may be administered regularly (two to three monthly). The SPS comprises: (1) a psycho-educational briefing; (2) a questionnaire comprising the K10 and the Acute Stress Disorder Scale ASDS; and (3) an individual psychological screening interview.
The requirement for SPS is negotiated between commanders and mental health professionals, with completion of SPS not negating the necessity for RtAPS and POPS. The SPS is only to be conducted by a mental health professional.

**Critical Incident Mental Health Support (CIMHS)** is initiated when a critical incident has occurred. The CIMHS process is comprised of a number of activities, across three stages:

1. Provision of social support, and psychological first aid (PFA) if necessary.
2. Provision of psychoeducation and administration of initial psychological screens (Acute Stress Disorder Scale, Mental Status Examination), facilitating the identification of individuals at risk of psychological injury and initiation of referral for further assessment and treatment.
3. Follow-up (K10, PCL, AUDIT).

The activation and timing of the CIMHS response is determined by the Commanding Officer in consultation with the CIMHS coordinator (the most senior CIMHS-trained mental health professional available), with psychoeducation and initial screening ideally conducted one to two weeks post-incident. The timing of follow-ups is individually determined, but generally takes place between three and six months after the initial screen. Initial or follow-up CIMHS screens may also be incorporated into the RtAPS process where appropriate.

According to the CIMHS data base, between March 2012 and March 2014 a total of 354 individuals received a CIMHS initial screen, with the majority of those 354 individuals also having completed a follow-up screen.

The **Periodic Health Examination (PHE)** aims to assist in ensuring individual effectiveness in the work environment by evaluating the risk of occupational injury and disease, as well as individual member safety. The PHE is conducted at regular intervals which vary according to age, service, specific occupational requirements, and medical employment classification (MEC). Healthy members under the age of 40 complete the PHE every five (Navy and Air Force) or three (Army) years, while those aged 40 to 49 do so biennially, and members aged 50 and over are examined annually.

The PHE includes a review of the member’s medical record, self-report health questionnaire, preliminary examinations (e.g., weight, height, blood pressure), and a
comprehensive physical examination. Mental health screening questions included in the PHE are currently restricted to the AUDIT (with a cut-off of 16 indicating high risk or harmful drinking), with plans for the addition of the K10 not yet realised due to technical difficulties.

The PHE format is also used for Separation Health Examinations (SHE) conducted between six weeks and six months prior to separation from the ADF.

**Pre-deployment** psychoeducation is provided to inform members of the psychological threat on their intended operation and to provide refresher training in key mental toughness skills (including arousal reduction, cognitive stress management, leadership and teamwork). In addition to these briefings, pre-deployment screening of individual members may be conducted upon request from an appropriate authority. Such screening is typically not conducted for groups of personnel.

**Post-transition** screening is not currently conducted by the ADF. However, the Defence Community Organisation emails a post-separation survey to all ADF members who have been discharged for at least three months. This post-separation survey asks questions about the separation experience, the member’s chosen occupation post-transition and perceptions of support received around transition. The survey also includes 50 wellbeing questions provided by the ADF. This process commenced in 2008 and was scheduled to be undertaken every six months, but due to a PMKeyS update in 2013, personal email addresses have not been accessible; however, the process is scheduled to recommence shortly.

**Key points to consider from current practice in the ADF**

- There is an established culture of screening within the ADF which is supported at high command levels.

- The ADF currently has a relatively comprehensive program of screening and this needs to be considered when building an enhanced framework to minimise duplication and burden on resources.

- Most of the current focus of screening is toward the high risk situations such as deployment and critical incidents.
• There are some identifiable gaps in the screening process; non-deployed members only receive very minimal screening.
II. International consultations

The Technical Cooperation Program (TTCP) is an international defence collaboration designed to enhance scientific and technical information exchange, program harmonisation and alignment, and shared research activities for five nations: Australia, Canada, the United Kingdom, the United States of America and New Zealand. It is, therefore, important to look at current screening practices within the TTCP. As part of this report the peer review and grey literature was reviewed and the findings describing the mental health screening practices within each of the TTCP countries is presented below. As part of the consultation process, ACPMH attended the TTCP Technical Panel 13 – Psychological Health and Operational Effectiveness meeting in Sydney in April 2014 and spoke with representatives from each country. The UK representative was not present at this meeting but a number of representatives from the UK were followed up separately and consulted. The consultation notes are reported in text below. Some of this information is repetitive, but reinforces that what has been published is what is occurring in practice in these military organisations.

Canada

Members of the Canadian Forces who are deployed for 60 days or more complete a psychological screen at three to six months post-deployment, comprising the PCL, the Patient Health Questionnaire PHQ-9: 38, Short Form General Health Survey SF-36: 39, and the AUDIT. Regardless of their questionnaire results, members then complete a semi-structured interview with a mental health professional and are monitored to ensure that any recommended follow-up takes place.

Canadian members also complete a psychological screen during their biennial medical examination. This regular screen consists of two depression items Patient Health Questionnaire-2 [PHQ-2]: 40, four PTSD items Primary Care PTSD Screen [PC-PTSD]: 41, the first three items of the AUDIT AUDIT-C: 42, and a two-item conjoint screen for drug and alcohol problems TICS: 43.

In addition to formal screening processes, the Canadian forces have also implemented a comprehensive mental health training and education model to assist in the early identification of mental health problems. The Road to Mental Readiness program is designed to apply across the military lifecycle, with training provided to all members at
key points through their careers. The program aims to provide a context for transient distress that many personnel experience during their careers, and to assist members in managing their mental health, supporting peers, and recognising when they or someone else may need help.

Consultation with the Canadian representative on the TTCP Technical Panel 13 revealed that they first started post-deployment screening after the Balkans war in the early 1990s. They enhanced their screening process in 2002 to incorporate pre-deployment screening, post-deployment screening, and a three to six month follow-up post-deployment. Each member participating in these screens completes a questionnaire and a semi-structured 20 to 40 minute face-to-face interview. At the end of the interview the clinician completes a one-page report but does not specify any diagnosis in the report, rather, identifies individuals as being of major concern, minor concern, or no concern. Six weeks after screening, a member of personnel from within the health system ‘checks in’ with those identified as being of major concern, or those who were flagged for a follow-up. The Canadian representative reported that they had initially expected there to be resistance from members around the enhanced screening process, however, this was not the case, and members accepted the process and for the most part seemed to participate appropriately.

The Canadian representative also noted that members are required to complete a statutory declaration upon completing a deployment. This declaration is reported to have been well-received and is for members to declare any physical or psychological injuries sustained during the member’s deployment. Members are also universally screened for mental health problems at the time of their periodic health evaluation (typically every 2-5 years). During this evaluation members are screened for depression, PTSD, alcohol use/dependence and suicidality. At the transition time point members are given the opportunity of a mental health screen (run through Veterans Affairs), but this screen is not compulsory. It was also noted that the Special Forces members of the Canadian military receive an extra screen above and beyond what has already been mentioned. The Canadian mental health screening program is a tri-service program and therefore does not differ across Army, Air Force, or Navy.

Reflecting upon their system for screening, the Canadian representative noted that general practitioners should be more involved with mental health screening as members
tend to see GPs fairly regularly (providing opportunity for checking in regularly) – something that they are continuing to work on. The Canadian model does not incorporate a stepped process; rather all members who complete a screen are required to also participate in a face-to-face interview. It was considered that this enabled identification of issues that may not be reported in a questionnaire and minimised stigma around screening (as everybody was required to go through the whole process, not just a select few). Finally, with regards to a lesson learned, the Canadian representative stressed the importance of a coordinated online approach to managing an enhanced model of screening, citing the particularly arduous nature of coordinating paper-based screens.

In a further communication with the Canadian representative after the TTCP meeting some very pertinent points about buy-in and perceptions around screening were discussed. Specifically the Canadian representative noted that there was some resistance when they started their screening program. There were some in the chain of command who viewed it as an intrusion whereby they viewed "looking out for their men" as their responsibility, and not that of a medical team. Conversely, some clinicians felt like this could result in Commanders abdicating their responsibility to keep an eye on people. Some in the chain of command were concerned that everyone screened would end up with a diagnosis or would be deemed to need care. Some were concerned that too many would prove to be found unfit, with implications for readiness. Others doubted that anyone would honestly disclose anything. Some were concerned that people would fall ill just under the suggestion of possibly having psychological symptoms after trauma. And some thought that people would all answer positively just in case they later needed to apply for a pension. Within the medical group, some clinicians felt that this shifted the responsibility away from the individual--their perspective was that soldiers know where the clinic is, and if they are having trouble they should go get help. There have been concerns about taking clinicians away from assessing and treating people who have come forward for help in order to screen largely health people. The Canadian representative reported that over time these concerns have pretty much evaporated, and the process now has broad and consistent support. He noted that part of what has helped is that people have come to understand that screening is just one tool of many that is used to assist in transition and recovery. They have also clearly articulated a model of "shared responsibility" when it comes to mental health--responsibility is shared.
among Command, clinicians, and the member himself/herself. Each group has different but overlapping responsibilities, and these vary across the deployment cycle.

Finally, it is worth noting that the Canadian Forces are about to commence a significant validation study of their screening program whereby they will be looking much more carefully at compliance and the factors associated with non-compliance in that study. It would be valuable for ADF to keep appraised of this study and the outcomes as they become available.

New Zealand

The General Health Questionnaire GHQ-30: is administered to New Zealand military personnel by a psychologist at approximately three months post-deployment. This questionnaire is followed by an interview with a psychologist, and those scoring above cut-off are referred for treatment.

During the April meeting of the TTCP Technical Panel 13, consultation with the NZ representative revealed that the NZ military do not currently undertake screening pre-deployment, but they do have provision for a critical incident screen to be given during deployment if required. Their program for post-deployment screening is:

1. Immediately following end of deployment: Initial Psychological Debriefing (IPD) with the completion of an Initial Psychological Questionnaire (IPQ). There are a number of mental health and other measures included in this (such as AUDIT, K10, morale measures, deployment related stressors, CI checklist, PCL-C, PC-PTSD, organisational outcome measures like exposure to harassment, career intentions and the AAD).

2. Four to six months following deployment: Follow-Up Psychological Debriefing (PFD) and the completion of a Follow Up Psychological Questionnaire (FPQ). Again there are a number of mental health and other measures included in this (such as transition difficulties, K10, AUDIT, transition stressors, PCL-C and PC-PTSD. At this stage we do administer the GHQ in addition to the FPQ, however this will cease shortly upon completion of data analyses for its removal.

Any individual during the debriefing processes who either score over the cut scores or indicate a need for referral, is referred either externally for clinical psychologists, child psychologists (if there is a need for their children), counsellors, relationship counsellors, alcohol and drug counsellors. They also refer internally to medical or chaplaincy.
The purpose of the screen upon return from deployment, and the subsequent follow-up screen, is to identify needs that are unmet rather than screening specifically for disorder. Along with many other military models around the world, high risk and special groups are screened for appropriateness to undertake their role (selecting out those who do not meet standards), but this is not psychological screening for the purpose of identifying disorder. Uniquely, the NZ military undertake regular surveying for harassment, discrimination and bullying in their entry training and they also have a New Zealand Defence Force wide organisational survey (the online attitudes survey) administered quarterly. Similar to the ADF, we also administer PULSE to units and workplaces on occasion and request.

Finally, the NZ representative noted a relative lack of funding for research comparative to other nations (such as the US, Canada and Australia). Leveraging research from other nations and operating as efficiently as possible with available funds has limited their screening programs.

**United Kingdom**

With the exception of a small psychiatric component contained within members’ regular health assessment (whereby the assessing clinician rates the member’s psychiatric stability in the military environment), the UK military does not conduct routine psychological screening. Instead, an informal screening process known as Trauma Risk Management (TRiM) is employed. This peer-based system aims to decrease stigma and improve early identification of mental health problems in the aftermath of a traumatic event. Under the TRiM system, members in junior management positions are trained to provide psychoeducation and to identify and monitor individuals at risk through interviews conducted 72 hours and one month after a traumatic event. Education about TRiM is provided during training for new recruits, as well as during promotion courses for existing members. 46

Consultation with representatives from the UK reinforced that their approach is to focus more on destigmatisation and peer support than screening. Their mandate is to ensure that people know where to get help and to facilitate / encourage leaders and colleagues to look after potentially distressed staff informally. That being said, the UK is in the process of conducting a large trial for the US on UK personnel (with a sample size of
around 9,000) to examine whether post-deployment screening works. The outcomes of this trial are expected to be available in 2015.

One representative from the UK noted that they have dropped their regular health assessment from an annual assessment and have moved to an assessment every five years (more regular for some occupations such as aviators, divers, etc.). Within these universal health assessments is a check for mental health problems. A report from a Member of Parliament and a former Royal Navy Doctor entitled *Fighting Fit: A Mental Health Plan for Servicemen and Veterans* provided a number of recommendations with the aim of improving mental health services. One of the principle recommendations from this report was the “Incorporation of a structured mental health system enquiry into existing medical examinations performed whilst serving”. From this report a pilot study was conducted to assess the practicality of including an enhanced mental health assessment during routine and discharge medicals of serving personnel. The study found that the questionnaire (including screens for PTSD, alcohol use, generalised anxiety disorder and depression) was easy to administer, did not take up a large amount of additional time or resources, and provided a useful check of mental health status. Of the 325 questionnaires collected, one referral was made and a further 26 (8%) patients were categorised as “some concern and patient offered advice and/or reassurance”. The remaining patients were not found to have any mental health problems. From consultations with representatives from the UK it appears that these mental health assessments have become a routine part of the five-yearly medical checks, as well as being incorporated into health checks for members who are entering and leaving the services.

The UK does not have any different processes in place for what might be considered high risk groups (e.g., Special Forces, military police). Instead, these groups may be required to complete a more frequent medical (which therefore results in more frequent formalised mental health assessments).

The opinions of the representatives from the UK varied markedly from the opinions of other nations such as the US and Canada where psychological screening is embedded far more formally. The general opinion in the UK is that there is a lack of evidence to support psychological screening, with additional observations such as, that screening does not work because people will not self-identify due to shame, stigma and damage to
career, and that their TRiM model is generally well-liked and accepted as being somewhat useful.

United States of America

US personnel deploying for 30 days or more complete psychological screens within 30 days prior to deployment (PreDHA), 30 days post-deployment (PDHA), and between 90 and 180 days post-deployment (PDHRA). At all three screens, the serving member initially completes a series of screening questionnaires, and then meets with a health care provider who asks additional questions, reviews questionnaire results, and provides brief counselling or referrals as required. The PreDHA and PDHA are similar in that they both employ a stepped screening process whereby members initially complete brief screens for depression (PHQ-2), PTSD (PC-PTSD), and alcohol use (AUDIT-C), and those who score above cut-off for depression or PTSD then complete more comprehensive questionnaires for those disorders PCL and PHQ-8; \(^{49}\). The PDHA comprises only the brief screens for each condition.

US personnel also complete a universal annual health assessment, which includes questions pertaining to alcohol use (for Navy/Marine Corps only) and depression, although these questions are not taken from validated instruments. In addition, Army personnel presenting to primary care clinics are screened for PTSD and depression under a primary care-based screening, assessment, treatment, and referral program (RESPECT-Mil). Anonymous self-screening and relevant referral information is available for members across all services through the Military Pathways website (http://www.militarymentalhealth.org). The website focuses on depression, anxiety, alcohol, and PTSD. Screening instruments can be accessed either by directly selecting one of these disorders, or by indicating “how you’re feeling” through a drop-down menu of options such as “feeling sad or empty”, and “drinking more than planned”. Alcohol use and PTSD are assessed using the AUDIT and PC-PTSD respectively, while less common instruments are used to assess depression HANDS: \(^{50}\) and anxiety Carroll-Davidson Generalized Anxiety Disorder screen: \(^{51}\). It is worth noting that these instruments form a standard battery used by the website developers (Screening for Mental Health Inc.) rather than indicating a preference of the US military. This website was built as a result of the National Defense Authorization Act of 2006 which required a mental health self-assessment program with the intent to provide a proactive approach
to helping members self-identify symptoms and gain access to services (a more detailed overview of the website is provided in Appendix 3). Finally, personnel discharging from the US military complete a full physical and psychological examination.

Consultation with the US representative on the TTCP Technical Panel 13 revealed that the US has been involved in screening their military members since the Bosnian conflict in the mid-1990s. More recently, the US investigated whether there was a difference in reporting mental health problems depending on whether the member saw a mental health clinician or another generalist medical professional. The outcome of this as yet unpublished trial was that members reported “liking” the clinician more, but that the rate of reporting mental health problems did not differ between the two groups.

Part of the US military’s continuing psychoeducation campaign around mental health and screening included a survey to members around their knowledge of processes and care (for example, asking true/false questions such as “what I tell a practitioner is confidential”). They also offer members access to a free and confidential phone service to talk about mental health issues (to a maximum of 10 sessions). Upon discharge from the US military, the Department of Defense will conduct a personnel information handover with Veterans Affairs.

Consultation with the US revealed a confidence with the breadth and depth of their current screening program and that as an organisation a lot has been learned since those first screening programs in the mid-1990s, but there was also acknowledgement of the difficulties inherent in evaluating the effectiveness of screening programs. When asked whether there was anything about the US model that they would change, the US representative mentioned not a change per se, but a follow-up to the quality assurance process whereby the quality of the clinician (or health professional) interviews should be reviewed regularly.

Key points to consider from the TTCP countries

From the consultations with various representatives of the TTCP countries the following key points can be extracted for consideration when building the MHSC frameworks:

- Giving all members (deployed and not deployed) ready access to mental health support is important.
• Mental health checks during routine medical examinations are feasible and useful.

• Regular use of validated psychometric instruments is routine in many, but not all, other defence forces.
III. Review recent literature

The preceding section highlights the varied approaches to screening taken by allied countries. Importantly, these approaches were developed and continue to be implemented largely in the absence of supporting research evidence. Both prior to and since the release of the CMVH Think Tank report in 2009, the screening literature has been defined by its deficiencies and there continues to be no direct comparison of the different approaches taken by TTCP countries. That is not to say, however, that the literature has not continued to progress, and a number of relevant reports and research papers have been published in the past five years. Acknowledging the limitations of the available evidence in identifying the strengths and weaknesses of the various screening programs across the TTCP, this section discusses the current state of the literature in terms of the timing, modality, and acceptability of screening.

Firstly, two key Australian clinical practice guidelines have been recently updated. The 2012 guidelines of the Royal Australian College of General Practitioners (RACGP) do not recommend routine screening for depression unless appropriate staff-assisted care supports are in place \(^1\). This is in contrast to the 2005 edition of the guidelines which recommended routine screening without caveat. The *Australian Guidelines for the Treatment of Acute Stress Disorder and Posttraumatic Stress Disorder* recommend that people presenting to primary care with repeated non-specific physical health problems be screened for psychological causes \(^52\).

Another relevant publication was the recent review of mental health programs in the US military, conducted by the Institute of Medicine. This review examined existing screening processes in the US and identified unnecessary variability in the content of screens conducted at different points across the military life cycle. The document recommended that validated psychological screening measures be used consistently, with systematic targeted screening conducted annually throughout the military lifecycle for both serving members and their families. The report also identified that, despite the numerous screens completed by members, there is limited information on the extent to which members screening positive are followed up and provided appropriate intervention.
Timing of screens

Broadly speaking, the centrepiece of mental health screening in defence forces internationally has been deployment. There is a general consensus in the literature that pre-deployment screening is not useful, as members are unlikely to put their deployment at risk by reporting mental health problems. At present, the United States is the only country to conduct systematic pre-deployment screening, and research suggests that this screen significantly underestimates the prevalence of disorder. Specifically, of members with a mental health diagnosis identified on their medical records, more than half gave no indication of this diagnosis on their pre-deployment screen. On the other hand, Warner et al. found that a stepped model of pre-deployment screening, tracking, and coordination of care, enhanced both individual outcomes and unit functioning while on deployment.

By far the most common assessment point at present is at three to six months post-deployment, with the Australian, US, Canadian, and New Zealand militaries all conducting a formal mental health screen at this point. Research in the US suggests that screening at three to six months post-deployment is a valid predictor of future engagement in high risk alcohol-related behaviour. However, as Fertout et al. note, there is little research into the optimal timing for post-deployment screening. The currently employed three to six month window has been determined by expert opinion and is subject to ongoing debate, with concerns that both screening too early and too late may undermine the validity of post-deployment screening.

One issue with post-deployment screening is that to date it has not been shown conclusively to improve outcomes for those screened. A randomised controlled trial (RCT) currently being conducted in the UK aims to address this gap in the literature by assessing whether post-deployment screening for members returning from Afghanistan can reduce subsequent symptoms of PTSD, depression, anxiety, and alcohol misuse, and increase health seeking in those affected by any of these conditions.

Given the issues surrounding deployment-centric screening, many authors argue for mental health screening to be conducted at regular intervals, regardless of deployment or other specific events. A recent UK study demonstrated that administration of a mental health questionnaire as part of regular medical examinations did not impose a significant resource or time burden, although the follow-on effects for individuals identified and
referred for further assessment or treatment were not assessed. As with post-deployment screening, there is no empirical evidence to suggest the optimal timing for a regular screen, although annual assessments are most widely promoted. The Australian Guidelines for the Treatment of Acute Stress Disorder and Posttraumatic Stress Disorder suggest that annual screening would be beneficial due to the potential for delayed onset of symptoms, meaning that post-deployment screens may not identify all members who are affected by recent deployment experiences.

Screening modality

While screening questionnaires have traditionally been administered in pencil-and-paper format, recent research has investigated the validity of online administration. The evidence in regards to the psychometric properties of online administration is thus far equivocal, although a recent study with US Army personnel demonstrated that smartphone administration of validated questionnaires (including the PCL) resulted in comparable psychometrics to paper-based versions. Online questionnaires also have the advantage of being less resource intensive, and potentially more acceptable to younger members.

Online questionnaires can be easily completed anonymously, limiting the influence of social desirability in responding. The protection of anonymity appears to have some effect on the reporting of PTSD symptoms in military samples, with both UK and US research reporting that anonymously completed questionnaires result in higher PTSD prevalence. Evidence in regards to other mental disorders is so far equivocal, with personnel in the UK reporting symptoms at a similar level whether their responses are identifiable or not, while their US counterparts report higher rates of depression and alcohol misuse under conditions of anonymity. Anonymous questionnaires also have benefits in allowing the member to take responsibility for following up with a health professional and, in doing so, take control of his or her own mental health.

It is important to acknowledge that some recent literature has focused on alternatives to mental health screening in defence forces. The UK and Canadian militaries both favour peer-support models where the onus of early detection of mental health problems falls on the members themselves, their commanders, and peers. The effectiveness of early detection of mental health problems through peer support programs is relatively unknown. Greenberg and his colleagues evaluated the TRiM using an RCT design.
and found that, while it did not reduce traumatic stress symptoms in members of the UK Navy, it also did no harm. They argued that over time such an approach may lead to cultural shift within the military. In keeping with this conclusion, Frappell-Cooke et al.\(^{46}\) reported that personnel in units with experience of TRiM had lower levels of psychological distress than personnel in units who had not previously used the program. Additional RCTs looking at formal screening processes\(^{63}\) and peer-delivered screening\(^{44}\) are reportedly underway, and may further inform our understanding of the strengths and weaknesses of each approach.

Importantly, Gates et al.\(^{14}\) note that there were limitations inherent in all current screening approaches as well as other approaches to early detection of mental health problems such as peer support models. As a result, the combination of multiple approaches has become standard practice as this approach takes advantage of each method’s strengths and minimises limitations. Of course, this tactic may come with its own limitation as the burden of coordination of different approaches may be costly.\(^{14}\)

**Acceptability of screening**

For any screening program to be worthwhile, it must have value for not only the organisation but also for the members themselves. If the goal of screening is to improve treatment uptake, the post-screening referral processes must also be acceptable. Consistent with earlier research, a recent UK study found that, although the majority of military personnel reported positive views on screening, there was less enthusiasm for psychoeducation or referrals based on screen responses.\(^{63}\) While the available Australian evidence suggests that general attitudes towards screening are positive,\(^{64}\) there is no data to indicate whether this translates into a similar acceptability of referral and follow-up. There is, however, some encouraging evidence that, unlike in the UK where mental health problems appear to decrease the likelihood of treatment seeking, ADF members with a mental health problem (and particularly those with more than one) are more likely to seek help than those without.\(^{18}\)

**Use and acceptability of mental health screening by general practitioners**

The use of general practitioners (GPs) in mental health screening and assessment with follow on collaboration with psychiatrists, clinical psychologists, registered psychologists, and appropriately trained social workers/occupational therapists is supported and
encouraged by the Australian Government Department of Health through the Better Access initiative. Under this initiative, Medicare rebates are available for GPs to provide assessment, early intervention, treatment and management of patients with mental disorders as part of a GP Mental Health Care Plan.

A comprehensive evaluation of the Better Access initiative (Pirkis et al., 2011) reported evidence to suggest that Better Access had improved access to mental health care for people with common mental health disorders (e.g., anxiety, depression and substance use disorders). Uptake of Better Access services was reported as high (increasing every year over the three-year evaluation period) and the initiative was successful in reaching significant numbers of people who had not previously accessed care (for example, data from a study of uptake of Better Access by women found that 93% who used relevant Better Access items had not previously seen a counsellor, psychologist or social worker). This demonstrates that it is feasible to embed mental health screening and assessment in primary care settings.

As has been noted by Engel et al (2008), primary care-based mental health screening and treatment with defence forces is broad in coverage, is able to occur more frequently for those at greatest risk, and can potentially improve the linkage of individuals to mental health services.

Key points to consider from the literature

- The literature focusing on mental health screening within military forces continues to be in its infancy. There have been recent incremental advances especially in the area of utilising internet as a modality for screening.

- Generally mental health screening is positively regarded by Australian defence force members.

- The involvement of general practitioners and medical officers in mental health screening and assessment is a fundamental component of the Australian Government Department of Health Better Access initiative. This initiative has significantly improved the uptake of mental health services within Australia.

- One learning from this literature is that the mental health data coming from different defence forces tends to differ. This is especially the case for the US and UK mental
health research findings. This difference is not just limited to screening issues. There are many factors that may influence mental health within a given military force and this may play a large role in outcomes of research. Thus it is important to be cautious about relying on literature from other military defence forces.

IV. Review measures

Measures of validity

A number of the issues raised in the disadvantages of screening section presented above speak to the importance of choosing appropriate screening instruments. One of the key recommendations from the US Institute of Medicine report, Preventing Psychological Disorders in Service Members and Their Families, was that standardised and validated instruments should be used when screening for mental disorders within the military. There are some basic metrics which are used to identify how well a test performs as a screen.

- **Sensitivity** – the rate of positive test results among patients with the condition in question (i.e., true positives).
- **Specificity** – the rate of negative test results among those who do not have the illness or condition being evaluated (i.e., true negatives).
- **Positive predictive power** – the ratio of true positive results to all positive results.
- **Negative predictive power** – the ratio of true negative results to all negative results.

Receiver Operating Characteristic (ROC) analysis is used to identify the sensitivity, specificity, positive and negative predictive power of possible cut-offs for screening instruments. By plotting a graph of sensitivity versus specificity, an appropriate cut-off can be chosen to suit the purposes of screening. In the case of the MHSC, the purpose is to maximise the proportion of ADF members (both with and without disorder) being correctly identified.

There are a number of things that need to be considered when choosing which screening instruments to use for the MHSC. A key recommendation from the Best Practice Mental Health Screening in the Australian Defence Force report was to utilise screening instruments that have been validated in the Australian military population,
particularly in relation to appropriate cut-offs. Analysis of the data from the 2010 Mental Health Prevalence and Wellbeing Study 25 allowed psychometric determination of the optimal clinical cut-offs for a set of screening instruments. These screening cut-offs maximised the sum of the sensitivity and specificity (the proportion of those with and without the disorder who are correctly classified). Optimal cut-offs were identified for the K10 (17), PCL (29), and the AUDIT (8).

Target mental disorders

The need for routine mental health screening within the ADF should focus on disorders that are prevalent at significantly higher rates than found in the community. As we have discussed previously, the MHPWS identified rates of PTSD, depression, suicide ideation and risky alcohol use that were significantly higher than community norms. In addition, PTSD, depression and risky alcohol use were the most prevalent disorders within their respective domain of mental health (e.g., anxiety, mood and substance use disorders). Thus, there is a strong argument that the MHSC framework should focus mental health screening on depression, PTSD and risky alcohol use. The measurement of each of these mental disorders is described below, with an additional discussion around the issue of screening for suicidal ideation.

The selection of screening instruments to incorporate into the MHSC frameworks needs to be underpinned by two key principles. First, is the need for ADF-specific thresholds on a given screen, since the accuracy of screening scales can vary markedly across different populations 67. A measure validated in community samples may not retain the same psychometric properties when applied to ADF members and it is imperative that Defence can be confident that the MHSC process is identifying the correct people – that is, that it identifies those members who need help and does not identify those members who do not need help. The second principle underpinning the selection of screening instruments is that of simplicity and brevity. All else being equal, shorter measures were preferred given their greater efficiency and lower burden on individuals completing the screening battery 67.
Screening instruments

**Depression**

Depression screening questionnaires are ubiquitous and vary widely in psychometric strength, length, content, and ease of completion. The two questionnaires currently employed in the TTCP military environments include the PHQ and the K10.

PHQ: The PHQ is perhaps the most widely used depression screen in military populations, with the US and Canadian militaries administering the 2-, 8- (US), and 9-item (Canada) versions of the PHQ. US evidence suggests that the briefest version (the PHQ-2) performs well, identifying depression in a post-deployment sample with a sensitivity and specificity of .73 and .86 respectively. The PHQ-8 has only been examined using the PHQ-9 as a reference while no studies have reported the efficiency of the PHQ-9 in military samples. The PHQ-9 was used in the Australian Mental Health Prevalence and Wellbeing survey however cut-offs have yet to be established. To date no studies have reported the ability of the PHQ in identifying anxiety disorders in military samples.

K10: The K10 was introduced into screening within the ADF in 2002. It is a 10-item questionnaire providing a global measure of psychological distress, based on questions about anxiety and depressive symptoms. Each item is rated in reference to the past four weeks, with items summed to produce a total score ranging from 10 to 50. The K10 has been tested in the ADF, with the optimal cut-off for affective disorder (e.g., depression) established as 19. At this cut-off, the sensitivity was .75 and specificity was .79. The K10 also screens for anxiety disorder and cut-offs have been established within the ADF. At a cut-off of 17, the K10 has the ability to screen for any anxiety disorder with a sensitivity of .68 and a specificity of .72. Therefore, in order to most effectively identify personnel suffering from either anxiety or depression, the more conservative cut-off of 17 has been recommended.

K6: The K6 is the shortened version of the K10 containing only 6 items. Research with the Australian general population found that the K6 was only marginally less accurate than the slightly longer K10, with a specificity of .89 compared to .90, and was more consistent across subsamples. In addition, the K6 (as well as the K10) has outperformed another commonly used mood and anxiety screening measure (General Health...
The K6 threshold levels have not yet been established within ADF samples.

Summary: The PHQ and the K10 are the two depression screening questionnaires that have been utilised in military samples. While the PHQ is a reliable instrument with high sensitivity and specificity, at this point in time the K10 has advantages to be used in an ADF screening battery because (i) its cut-offs have been established within the ADF, (ii) it has a high sensitivity and specificity in identifying affective disorders within the ADF, (iii) it also identifies anxiety disorders with an adequate level of sensitivity and specificity.

**Posttraumatic stress disorder**

The militaries in the TTCP that screen for PTSD utilise the PC-PTSD or the PCL.

**PC-PTSD**: The PC-PTSD is a four-item screen that was designed for use in primary care and other medical settings. This screen is used in the US and Canadian militaries. It has demonstrated a sensitivity of .85 and specificity of .76 in US military personnel (cut-off of 2).

**PCL**: The PCL consists of 17 items assessing each of the symptoms of PTSD as defined by the Diagnostic and Statistical Manual for Mental Disorders (4th edition; DSM-IV). The PCL is currently used within the ADF and has had cut-offs established. The optimal cut-off in the ADF of 29 which gives a sensitivity 0.79 and a specificity 0.80. The PCL has been tested within the US military and a cut-off of 29 gives a sensitivity of .80 and a specificity of .85.

**PCL-4**: A brief version of the PCL has also been developed, and comprises four items from the full 17-item scale which contribute the most to an individual’s result PCL-4: see Appendix 2. Preliminary research has suggested that the overall accuracy of the PCL-4 in the ADF may be similar to that of the whole scale. However, cut-offs have yet to be established within the ADF.

Summary: The PCL and the PC-PTSD are the two PTSD screens that are currently utilised in military samples. While the PC-PTSD is a reliable instrument with high sensitivity and specificity, at this point in time the PCL has advantages to be used in an ADF screening battery because (i) its cut offs have been established within the ADF, (ii) it has a high sensitivity and specificity in identifying PTSD within the ADF, (iii) it is
currently being used within the ADF so health professionals and members are familiar with it.

**Alcohol use**

There are only a small range of well validated brief screening questionnaires for alcohol use. The Alcohol Use Disorders Identification Test AUDIT; is probably the most well-known alcohol use screen. It is a World Health Organization-recognised brief screening tool that identifies currently active, hazardous and harmful drinkers and demonstrates good reliability and validity across a number of populations. Within the TTCP the majority of militaries that screen for Alcohol use disorders use the AUDIT, although the Canadian Military uses the TICS in addition to the AUDIT.

**AUDIT:** The AUDIT is currently used in the ADF and has established ADF cut-offs. Analysis of the MHPWS identified an optimal screening cut-off of 8 identifying alcohol use disorder with a sensitivity of .95 and specificity of .76. The community cut-off of 16 was also tested in the ADF and this had a sensitivity of .38 and a specificity of .97.

**AUDIT-C:** The US and Canadian militaries both use the shortened version of the AUDIT, the AUDIT-C, however, documentation of the sensitivities and specificities of the AUDIT-C in the US or Canadian militaries could not be identified for this report. The AUDIT-C has been tested in US veterans and a sensitivity of .82 and specificity of .78 was identified at a cut-off of 5. Cut-offs for the AUDIT-C have been identified in the ADF and at a cut-off of 6 gives a sensitivity of .87 and specificity of .71.

**TICS:** This two-item questionnaire asks about using alcohol or drugs more than intended, and desire to cut down drinking or drug use. It is used in the Canadian Armed Forces has also been tested in the US military and has a sensitivity of .97 and a specificity of .64 for identifying a substance use disorder at a cut-off of 1.

**Summary:** The AUDIT is the most frequently used instrument for identifying alcohol use disorders within the TTCP militaries. It tends to be utilised in its shortened version (AUDIT-C). At this point, the full AUDIT or the AUDIT-C are the most appropriate instrument for detecting alcohol use disorders in the ADF because cut-offs have been established within the ADF.
A combined mental health screening battery

In addition to looking at how individual screening instruments function, it is important to recognise the rigorous and detailed explorations that have been conducted around how the PCL, K10 and AUDIT function as an ADF screening battery (that is, how these instruments function together). This battery has been tested in whole-of-ADF samples (including deployed and non-deployed members) as well as specifically with those who have not deployed. Overall, the AUDIT, PCL and K10 as a screening battery showed a good ability to discriminate between personnel with and without current mental disorder, detecting 76 percent of personnel with disorder. It is also recognised, however, that the specificity for the battery was low in this study (specificity = .51). That is, a high proportion of members without the target disorder received a positive screen (false positive). This is a matter of concern, since it has the potential to substantially increase the numbers crossing the threshold and requiring a face-to-face interview. However, many of those in the false positive group were accounted for by the low cut-off score (cut-off of 8) used to predict alcohol abuse or dependence on the AUDIT. That is, a significant number of individuals with acceptable patterns of alcohol consumption fall above this score. This is something that needs to be considered when determining the screening thresholds for MHSC frameworks. An alternate cut-off of 16 could be suggested because in community samples a score of 16 is considered the point at which alcohol use problems are identified as being severe enough to impair functioning and require intervention. However, it is recognised that 16 in ADF samples produced a low sensitivity. Another threshold may need to be established.

In summary, it is important to emphasise that the battery of the PCL, K10 and AUDIT showed an excellent ability to identify the disorders that are of particular focus (those that were above community norms in the MHPWS, i.e., PTSD, depression and alcohol misuse; McFarlane et al., 2011). In addition to this, they showed good ability to pick up other disorders including generalised anxiety disorder, panic disorder, agoraphobia, social phobia and bipolar mood disorder. The disorders they tended to miss were those with a relatively low prevalence in the ADF, such as obsessive compulsive disorder and specific phobia.

Additional measures
The question of whether additional measures or variables would improve screening sensitivity and specificity is an important one. In developing a battery for mental health screening within the ADF, an inherent tension exists between increasing the accuracy of the tests administered and the resource/cost burden associated with administering, completing, and scoring the battery. This question was addressed comprehensively by the Centre for Traumatic Stress Studies. They found that very few measures uniquely predicted mental disorder over and above the K10, PCL, and AUDIT. The variables they explored were: PHQ-9, anger, overall physical health, sleep problems, tobacco use, social support (including family support, family strain, peer strain, supervisor strain), lifetime trauma exposure, days out of role due to psychological distress, and demographic information.

The only additional variable to explain significant unique variance in any mental disorder over and above the PCL, K10 and AUDIT was the number of lifetime trauma types (not the number of discrete events), and this represented only a very small increase in predictive power (OR = 1.13, 95% CI 1.01 - 1.27). In theory, it would be possible to assess this variable as part of the online screening questionnaire, but in practice it would be quite inappropriate. First, as noted elsewhere, the screening process is designed to detect current disorder, not risk factors for disorder. Assessment of vulnerability (risk factors) is a different question that would require a redesign of the protocol. Second, since the variable is lifetime exposures, these are not questions that should necessarily be asked repeatedly (e.g., on an annual basis). Third, although scales are available, they are – by necessity – very lengthy and would add substantially to the time required for completion of the online screen. In summary, this area is far better assessed as part of a face-to-face post-screen interview (see below in Chapter 4 for a suggested outline such an interview).

Thus, the incremental variance obtained by including other measures is minimal. The disadvantage of lengthening of the standardised screening battery for only minimal improvements in accuracy is, therefore, not justified.

**Screening for suicidality**

Suicidal ideation has been reported as significantly higher in the ADF than in community based norms. However, simply administering a screen for suicidal ideation, especially if the screen is online, is not recommended. Given that the risk of suicidality is
significantly increased in the presence of a mental disorder, members who are suicidal are likely to be identified by the standardised screening instrument battery and a suicide screen is highly unlikely to return a positive result if all other measures are below threshold. Accurate risk assessments are relatively complex and need to be completed by a trained mental health professional. Suicidal ideation will therefore be assessed within the MHSC framework as part of a standardised post-screen interview that will occur if an individual screens over threshold on the standardised screening instrument battery. Importantly, it is also recognised that the ADF has a well-established comprehensive Suicide Prevention Program designed to address suicide awareness and intervention. The approach taken to suicidality within the MHSC framework complements this program.

Key points to consider from the review of measures

PTSD, depression, risky alcohol use, and suicide ideation were all at a prevalence rate within the ADF that is significantly higher than that expected within the general community. Furthermore each of these disorders were among the highest prevalence of all mental disorders within the ADF. These were therefore identified as the disorders to target for the MHSC frameworks.

The above section creates a strong argument for the PCL, K10 and AUDIT as the standardised screening battery for the MHSC framework. This argument can be summarised as follows:

- The PCL, K10 and AUDIT all have large empirical literature bases supporting their psychometric properties.

- While there are other instruments that are potentially as good as the PCL in identifying PTSD and the K10 in identifying depression, at this point in time, there is no evidence to suggest that alternative instruments being utilised by other militaries would provide a more suitable screen of these disorders.

- The PCL, K10 and AUDIT have each been tested separately within ADF samples, and thresholds established. PTSD, depression and alcohol use problems have been identified by these instruments within ADF samples with high sensitivity and specificity (PCL – PTSD, K10 – affective disorders, AUDIT – problematic alcohol use).
The K10 holds an advantage over the PHQ for three reasons. First, when the whole battery is administered (K10, PCL, AUDIT), the PHQ does not add any significant improvement in identification of “any disorder”. Furthermore, the K10 also has a good sensitivity and specificity for identifying other anxiety disorders. The argument for parsimony and brevity therefore supports the use of the K10.

The PCL, K10 and AUDIT have been tested together as a battery of instruments and the resulting sensitivity is very high in identifying all mental disorders. While the specificity is only moderate, the “false positives” would include members who have sub-threshold disorder which would be useful for the MHSC frameworks. There is an argument for increasing the AUDIT cut-off score to improve specificity of the battery as a whole and to avoid capturing members who are drinking at higher levels without impairment. Further analyses should be conducted to identify the best threshold for the AUDIT as it operates within the battery.

Adding other measures or variables to the K10, PCL, and AUDIT does not improve the sensitivity or specificity substantially. The only measure that may be useful to help identify “any disorder” is a measure of lifetime trauma. Given that the improved predictive power is very small, and that assessing lifetime trauma as part of a regular screen would be time consuming and repetitive, we propose that assessment of lifetime trauma would become part of a more in-depth assessment that would occur if a member screens above threshold on the K10, PCL and AUDIT battery.

A post-screen interview for use in all face-to-face screening events should be developed that includes specific questions around suicidality.

Future directions: At this point, there is no evidence to suggest that other screening instruments utilised by other TTCP militaries would provide more accurate identification of mental health disorders than the K10, PCL and AUDIT. However, there is an argument to conduct further analyses to identify whether shortened versions of these instruments (e.g., K6 and PCL-4) would be as valid as the full versions, thereby improving efficiency in screening administration. The PHQ should also be tested in the battery (in the absence of the K10) to see how it works as a part of the battery. Finally, the optimal cut-off of the AUDIT (or AUDIT-C) should be established as part of the battery. This data is available as part of the MHPWS so these cut-offs could be explored with minimal cost.
V. Stakeholder consultations

The consultation phase of this project was intended to canvas a representative group of primary stakeholders and service providers involved in mental health screening in the ADF. In total, 48 people were consulted, with a list of all participants presented in Appendix 1. The intent of the consultation phase was to gather ideas and suggestions, as well as to record feedback about current processes and procedures around screening. Many valid and important questions were raised by interviewees during the consultations. The primary purpose of this process, however, was to tease out interviewees’ opinions and thoughts, rather than to compile lists of further questions.

It was apparent when the review team commenced consultations that interviewees had many different understandings of what screening was. We therefore commenced each consultation with a definition of screening. We used a modified version of the Australian Health Ministers’ Advisory Council definition for this purpose (That is, the “identification of unrecognised mental health problems by means of tests, examinations, or other procedures that can be applied rapidly”).

Consultations were formatted as semi-structured interviews and were based around the following themes:

- Purpose – what should be the role of screening in the ADF?
- Target population – who should be screened?
- Timing – when should screening be conducted, and how often?
- Modality – how should screens be administered?
- Acceptability – how can the reliability and validity of responses be ensured?
- Response system – how should the ADF respond to a given screening result?
- Model – what do formal, informal and stepped processes of screening look like? What is the role of peer support models of early detection?
- Content – what disorders should be screened for, and what cut-offs should be used?
- Organisational acceptability – how can a screening framework be successfully implemented, and what other initiatives need to be considered?

Summary of consultations
The **role of screening** in the ADF was certainly the area where opinions diverged and interviewees expressed very strong opinions. Health professionals tended to question the empirical validity of screening and whether mental health screening should occur routinely, given it does not occur routinely in the community. There was a strong emphasis on the need to provide evidence for the use of screening within the ADF. Leadership representatives in the ADF were very clear in stating that the ADF had a duty of care towards its members and that the purpose of screening was to ensure a healthy workforce. RtAPS and POPS were often raised as a discussion point – health professionals generally thought the resource burden of RtAPS and POPS was too high because the perception was that they resulted in very few members attending mental health services. Most interviewees valued the other things that accompanied the screening component of RtAPS such as psychoeducation, validation of a member’s experience, and provision of operational climate to Commanding Officers.

Throughout the discussions about the **target population**, again RtAPS and POPS were raised. Health professionals in particular questioned the screening role component of RtAPS. There was criticism that most members did not report their symptom levels accurately for many reasons including excitement about returning home, and assuming that any issues would resolve upon returning home. There was, however, consistent support for the notion of psychological screening at the POPS time point because there was a view that this screen was reported more accurately. Senior leaders tended to report that both RtAPS and POPS were well accepted by the members. Representatives from identified high risk populations (such as military police and special Air Force police) noted that many groups who did not deploy but were exposed to high risk situations were not currently being screened, and this represented a limitation which needed to be considered in the context of an enhanced screening framework.

The suggested **timing** of screening tended to differ for different groups, with the majority of interviewees noting that special groups (such as high risk occupations) may need more frequent screening than others. Those in senior leadership roles reported that an annual screen may be cost prohibitive, and some middle level leaders reported that a self-led screening process or a risk-based screening process was more feasible. Health professionals were also concerned about resourcing an annual screen for all, but supported targeted screening (i.e., screen those who are not already picked up by current screening processes, and potentially screen high risk groups more frequently).
It was suggested by a number of interviewees that a more flexible process, possibly biennial or triennial, could be more feasible (note that in this context “screen” was referred to as the administration of psychological questionnaires followed by a face-to-face interview).

During the discussions about timing, the process at transition was raised. Both senior leaders and health professionals noted that screening at transition was challenging as members may be concerned that identifying mental health problems may delay their discharge. There were some suggestions that, if screening were to be included in the transition process, it should occur around six months prior to transition in order to be able to address any concerns without the risk of delaying the member’s leave.

How screening should be administered, or the modality for screening, was raised, and almost all interviewees agreed that a web-based process would be acceptable. Further to this, many interviewees noted that any web-based screening should be accessible outside the Defence Restricted Network and should be usable on smartphones. It was noted that there would be instances where members may not have access to the web and that there would need to be a back-up system in place for this if screening was expected to be conducted in those locations. There were disparate views on whether a web-based screen should be identifiable (i.e., the member could be identified) and also whether it should be mandatory. Feedback was mixed in regards to this for most interviewees. Health professionals tended to hold the view that screening should be non-identifiable because it would increase the accuracy of reporting, however senior leaders said that Defence had a responsibility to know about the mental health of its members so all screening should be identifiable. There was general agreement that screening should be mandatory.

The discussions around screens being identifiable and mandatory (or not) led to considerations of acceptability. In order to make responses to screening as reliable and valid as possible it was generally thought that screens should be able to be traced back to the member completing them. However, again there was debate over who is responsible for the mental health of members – whether it should be the member’s responsibility (and therefore an anonymous screen would be acceptable) or whether the ADF has a duty of care in regards to mental health and, as such, any screening would need to be identifiable. The idea was raised that both of these responsibilities could be
met by the development of an online anonymous screening tool coupled with an identified semi-regular screen. There was support for this idea amongst many interviewees including all levels of leadership representatives and health professionals, with senior leaders in particular favouring this dual responsibility approach.

The notion of stigma related to mental health screening was frequently raised when discussing acceptability. It was acknowledged by most interviewees that stigma related to mental health issues exists and it would be very challenging, if not impossible, to eliminate it completely. There was a view (generally held by health professionals) that interventions that aimed to decrease stigma would be a better use of funds rather than screening programs, however, there was also recognition that the mental health strategic objectives incorporated a focus on reducing stigma. It was also recognised by most interviewees that a screen for all members (regardless of time of implementation) would not add to current stigma as the process of screening in itself is already embedded and accepted within the ADF workforce.

In responding to a screen it was felt that the response system should be multi-dimensional. Linkage to an existing e-system (such as PMKeyS) was cited by many as critical, and it was suggested that any new process would fail if it was not linked into existing (and future) systems. The notion of a stepped response was raised with interviewees (e.g., that only members who score above cut-offs would receive a face-to-face interview) but there was mixed support for this idea. Some felt that a stepped process would be helpful in managing any additional burden of a new screening process, but others thought that they may still ‘miss’ people by adopting this process. It was felt that members knew how to answer screening questionnaires in a way that would indicate no mental health problems and, as such, it was the face-to-face interview that often picked up these members (although most interviewees acknowledged that the cost of this approach outweighed the benefits of identifying a few additional people). Health professionals and representatives of high risk groups tended to agree in principle with the idea of a stepped approach (though this was not the case for everyone). The notion of a back brief to Commanders was raised with the thought that this could occur on a semi-annual basis (depending on what type of screening model was implemented), although health professionals did not agree that screening information should be fed back to Commanding Officers (COs).
When discussing models of screening, some interviewees talked about a peer support model as a mechanism for early identification of mental health problems. There was general endorsement of a more formalised peer support model (with many interviewees noting that it already happens informally), but that this type of model should only be adjunctive to a more formalised process rather than relied upon as the only opportunity for screening. It was noted that peer support has been adopted in the Mate to Mate program and that this could be expanded to mental health. The notion of a more formal peer support program was mainly raised by service and military police representatives.

Discussions about the content of screens resulted in fairly consistent opinions. Most interviewees felt that the existing psychological questionnaires (the K10, PCL, and the AUDIT) were valuable. There was mixed agreement about asking questions around suicide ideation. Health professionals thought that questions around suicide ideation should only be embedded in a face-to-face interview, rather than be part of a questionnaire. Cut-offs currently in use for K10, PCL, and the AUDIT were agreed by most to be appropriate and sensitive enough (although many commented that they did not necessarily have evidence to support this idea). Many interviewees acknowledged that most members knew how to score below threshold, adding weight to the notion of a face-to-face interview to assist with identifying areas of concern. Interviewees who talked about the idea of a self-led screening process (such as doing a screen anonymously online) thought extra questions could be included around anger and sleep.

A number of interviewees at this point raised questions about how data would be collected, stored, and who would be responsible for following up with members. It was raised that any new screening system, if it were to be an online system, would need to be fully functioning before it was rolled out. It was also noted that the completion of a screen needed to be able to be recorded in a pre-existing IT system, and that in order to ensure compliance, incentives or sanctions should be considered as part of the broader process.

In thinking about organisational acceptability, interviewees (particularly the health professionals) spoke about the role of Medical Officers (MOs). The notion of involving MOs more comprehensively in a screening process was raised, as was the need to upskill MOs in such processes. Interviewees frequently mentioned that an enhanced
screening process would need to be seen as a whole of health response, and not just the primary responsibility of the psychology teams.

The development of a campaign to roll out an enhanced screening process was also seen as crucial by almost all interviewees, and it was felt that without this type of education any new process would fail.

Key points to consider from the national consultations

Key factors extracted from these consultations that need to be considered when developing the MHSC frameworks include:

- Mental health screening does have a place in the ADF.
- Current screening programs appear to be well accepted by members, although there may also be a place for a self-led screening program.
- The potential gains in honest reporting through anonymous processes must be balanced with the duty of care that ADF has towards its members.
- Integration with existing systems and processes is important for both acceptability and to help mitigate any additional burden on staff.

VI. Review recent ADF reports

It is important in developing the MHSC Framework to acknowledge a set of important recommendations made to the ADF around the issue of mental health screening. The Dunt Review of Mental Health Care in the ADF made three key recommendations around screening, including:

1. Continue the POPS in its present form, with an added brief for families and additional resourcing so that follow-up and referral for members can occur where necessary.
2. Retain only the ‘briefs’ component of the RtAPS, discontinuing the psychological screen and counselling component. Briefs should involve both members and their families, and include both educational and social activities.
3. Reservists should receive the same post-deployment screening and follow-up treatment as regular members.
Recommendations made by the CMVH Think Tank \(^2\) in relation to screening are as follows:

- Take steps to ensure that members take a proactive approach to maintaining mental wellness and are empowered to take responsibility for their own mental health.
- Ensure that the right people are screened by establishing a risk profile of who is most likely to develop mental disorders.
- Validate screening instruments in the Australian military population, particularly in relation to appropriate cut-offs.
- Consider using POPS as an annual mental health screen for members who have deployed.
- Screens should include measures to address broader mental health issues including workplace stressors and organisational factors.
- Perform mental health screens at discharge, negotiating with the Department of Veterans’ Affairs (DVA) on responsibility for follow-up care.
- Explore the development of both monitored and anonymous online mental health screens and treatments, and the circumstances in which these could be used.
- Develop a quality assurance mechanism to ensure that screens are carried out when necessary and that there is appropriate follow-up of positive screens.

The CMVH Think Tank report suggested a number of options for mental health screening in the ADF, including:

- Maintain current screening practices with the addition of an annual mental health screen for all members; consider shorter screens.
- Implement an annual screen only for members who have not deployed in the previous 12 months.
- Use RtAPS or POPS as the annual screen for members who do deploy (adding questions as necessary to meet the objectives of both post-deployment and annual screens).
- Continue RtAPS and replace the POPS with an annual screen, or continue POPS and replace the RtAPS with an annual screen.
- Screen members opportunistically when they present to primary care.
- Screen only those most likely to suffer mental health problems, or screen everyone briefly and this group fully.
• Conduct a mental health screen at discharge.

These recommendations have been considered in the development of the MHSC framework.

**Synthesis and interpretation**

**What to screen for**

The need for routine mental health screening within the ADF should focus on mental problems or disorders that are prevalent at significantly higher rates than found in the community. These are PTSD, depression, suicide ideation and risky alcohol use. In addition, PTSD, depression and risky alcohol use were the most prevalent disorders within their respective domain of mental health (e.g., anxiety, mood and substance use disorders). Thus, there is a strong argument that the MHSC framework should focus mental health screening on depression, PTSD and alcohol use. The measurement of each of these mental disorders is described below, with an additional discussion around the issue of screening for suicidal ideation.

**Who to screen**

There are two competing models for consideration in designing a screening framework for the ADF: a risk indicated model which would only screen subpopulations within the ADF who were deemed to be at higher risk of having mental disorders than other subpopulations; and a universal model screens everyone.

The question of whether there are subpopulations at higher risk for PTSD, depression, suicidal ideation and risk alcohol has been examined. Currently, most ADF mental health screening occurs around deployment (similar to most international defence forces). While deployment is a risk factor for the experiencing traumatic events, the MHPWS reported that deployment in and of itself was not a risk factor for the development of these target mental disorders. Furthermore, the MHPWS failed to clearly identify specific subgroups that were at risk for having mental health difficulties to the exclusion of others. For example, there were no differences across the three services in the prevalence of PTSD, and there were no differences between ranks in the prevalence of affective or alcohol use disorders. In general, a whole mental health screening framework that is...
limited to using a risk indicated model of screening was deemed to be problematic. For example, should an analysis be undertaken to identify who these specific subgroups are within the whole of the ADF, this would need to be undertaken on a regular basis as there would be an inherent risk of missing groups and individuals due to changes in role, operational tempo, and culture over time. Furthermore, the issue of not screening some groups because they are deemed ‘low risk’ for having mental disorder may result in marginalising and alienating these non-screened groups. The consultations identified stigma as an important issue to consider when developing the framework and the issue of screening some groups but not others may increase the potential for stigma (a notion that was also part of the US and Canada’s model of screening everyone). A framework that takes a universal screening approach would address the majority of these issues. Of course a comprehensive mental health screening approach could include both a universal approach, and additional targeting to high risk situations such as critical incidents and deployment.

How to screen

- The ADF currently has a relatively comprehensive existing program of screening and this needs to be considered when building an enhanced framework to minimise duplication and burden on resources. Furthermore, integration with existing systems and processes is important for both acceptability and to help mitigate any additional burden on staff.

- The consultations identified that the medical officers were a useful resource to utilise when developing the MHSC Framework. This is consistent with the approach taken by the ADF in the design and rollout of the new service delivery model to better integrate physical and mental health.

- Through the stakeholder and international consultations, the value of face-to-face screening was emphasised. There was also recognition that face-to-face screening was highly resource-intensive. Thus, the MHSC Framework needs to balance these two aspects of face-to-face screening.

- The literature review and consultation identified that there was a trade-off between identifiable screening processes and anonymous processes. A comprehensive mental
health screening framework may, therefore, want to utilise both forms of screening (similar to the US approach).

- Both the stakeholder and international consultations highlighted the importance of a coordinated online approach to screening. The development of the MHSC Framework needs to consider the use of online screening and data collection for members where possible.

What measures to use

- The review of the measures and data reports from the ADF identified that the PCL, K10 and AUDIT were the key measures to utilise within the MHSC Framework. They target the key disorders of focus for the framework, their cut-offs have been tested and established within ADF samples, they operate well as a battery of tests, Importantly they identify almost all other affective and anxiety disorders so offer a comprehensive approach to screening.

- It was argued that suicide ideation should be assessed in face-to-face settings through a standardised post-screen interview.

The following chapter introduces the three mental health screening frameworks that aim to translate the points made above into an enhanced mental health screening continuum.
Chapter 4 - Mental Health Screening Continuum Framework

General overview

Three mental health screening frameworks will be presented in the following section. Framework 1 is the prototype from which the other two frameworks were developed and is the recommended option. Framework 2 represents a minimal mental health screening approach, and Framework 3 represents an enriched approach. Note that an implementation guide along with a discussion of costs and resource demands are presented in Chapter 5.

A brief overview is provided here to help orientate the reader to the frameworks. These approaches generally aim to minimise the resource burden, increase coordination and enhance accessibility.

- The frameworks generally operate on a 12-month cycle, with a 3-yearly cycle for compulsory face-to-face screening, and have a tri-service focus.
- A standardised screening instrument battery consisting of the PCL, K10, and AUDIT will be utilised across all screening events. Other screens can be added into the standardised battery if other information is required.
- A ‘screening event’ is defined as a discrete opportunity to conduct mental health screening. Existing screening events will be maintained but all will adopt the standardised screening instrument battery. These existing events include (i) RtAPS; (ii) POPS; (iii) CIMHS; (iv) SPS; (v) PHE; and (vi) SHE. As assessment of alcohol use is not relevant at RtAPS and deployment-related SPS and CIMHS, the standardised screening battery for these screening events will be modified slightly to exclude the AUDIT.
- In any 12-month cycle, members who do not complete screening as part of any other screening event will be required to complete an online screen. Individuals who screen above threshold on this screen will receive a face-to-face assessment, performed by either an MO or a mental health clinician in Garrison Health.
- A triennial face-to-face screen will occur only if a member does not receive a face-to-face screen via other screening events over a three year period.
• When an individual attends a face-to-face assessment after they have screened above threshold on the standardised screening instrument battery, the person conducting the face-to-face assessment will utilise a standardised post-screen interview. The interview will include assessment of suicidality and lifetime trauma exposure. The main purpose of this post-screen interview is to provide the assessor with further information so that tailored treatment options can be identified.

• An automated computerised processing system will coordinate the timing of screening, track completion of each screen, collect the data from members, collate and store that data, activate a set of referral pathways for those who screen above threshold, and generate reports for specific target audiences (Framework 1 and 3 only).

• A voluntarily and anonymously accessed screening website will allow the member to complete mental health screens at any time and receive feedback and simple advice about improving or maintaining their current psychological health.

Guiding principles and definitions

Screening events

For the purpose of this document, opportunities for screening will be referred to as ‘screening events’. These are opportunities (time or event based) for members to complete a brief questionnaire and, if required, attend a face-to-face meeting with a member of the Defence medical team (e.g., psychologist, Medical Officer, psychology examiner, intake officer). At the time the MHSC frameworks were being developed, six such screening events already existed within ADF (detailed in the section entitled “Current mental health screening in the ADF” above). These events are spread across the lifecycle of the member’s employment with Defence and include: (1) RtAPS; (2) POPS; (3) CIMHS; (4) PHE (5) SHE; and (6) Special Mental Health Screens (including SPS, the Mental Health and Wellbeing Questionnaire, the Specialist Employment Stream Annual Health Assessment, Command-initiated screening).

The MHSC frameworks characterise these screening events into independent, dependent, and one-time screening events. Independent screening events are those events described above that are triggered by time (e.g., PHE) or an event (e.g., deployment triggers the POPS), and may therefore occur more than once during a given
year. **Dependent screening events** occur only if no independent screening events have occurred in a given 12-month period. A **one-time screening event** occurs only once within a member’s Defence career.

**Standardised screening instrument battery**

A standardised screening instrument battery will be administered across all screening events. It will comprise a minimum set of screening instruments which will be made up of the PCL, K10 and AUDIT. To allow for flexibility of need, other questionnaires may be added in at certain screening events, but only in addition to the standardised screening instrument battery. Questionnaires may be introduced to provide other information that is useful at an organisational level such as operation tempo or unit climate (such as currently occurs at RtAPS with the administration of the Deployment Experiences Questionnaire).

**Modifications to established screening events**

A fundamental premise of the MHSC Framework is that the same instruments will be used for all types of screening across the ADF lifecycle. Thus, some modifications to current practice will be required. For example, the proposed framework will result in the removal of the ASDS from the CIMHS and SPS. The rationale for the removal of the ASDS is that research has identified that the utility of the acute stress disorder (ASD) diagnosis as an early screening strategy is limited because the majority of people who develop PTSD will not display ASD or subsyndromal ASD. Furthermore, there are no established ADF cut-offs for the ASDS. We recommend, therefore, that the CIMHS and SPS use the PCL to replace the ASDS. (Depending on the time of administration, this may require a minor wording modification to the stem question; rather than saying “in the past four weeks” it should read “since the incident”). The standardisation across screening events will also require the addition of the PCL and K10 to the PHE and the SHE.

The standardised screening instrument battery is a fundamental component of the MHSC Framework. However, it is important to recognise that there will be occasional exceptions to the use of the full battery. For example, given that alcohol is not available on deployments, the administration of the AUDIT during RtAPS is unnecessary.
Furthermore, a number of screening events currently have additional measures within them. For example, the RtAPS has additional measures designed to provide operational feedback to commanders. The MHSC Framework supports the inclusion of this and other existing measures that provide important organisational information.

Annual cycle

The MHSC frameworks operate within a 12-month cycle\(^2\). That is, there is a requirement that a member receive at least one mental health screen in a given 12-month period. The 12-month period will operate in a way that is consistent with other annual requirements such as the Army Individual Readiness Notice (AIRN), triggered by anniversary date. In addition to the annual cycle, a face-to-face interview with a health provider is required every three years\(^3\).

Tri-Service focus

The frameworks proposed within the MHSC have a tri-Service focus. That is, the three Services within the ADF (the Navy, Army, and Air Force) will utilise the same MHSC framework. The rationale for this approach is threefold. First, the rates of trauma exposure and mental disorders are relatively similar across Services suggesting that a similar approach for each Service is appropriate. Second, a tri-Service approach has been adopted by all other Defence Services within the TTCP so there is a precedent for this approach. Finally, a whole-of-service approach supports a consistent and parsimonious model of operationalisation and implementation.

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\(^2\) The recommendation to operate on a 12-month cycle is based on expert opinion. This is based on a) feedback received through consultations, with certain groups expressing a desire for regular check-ups, b) consistent with the annual cycle utilised in the US military, and c) improving the likelihood of early identification of members suffering from mental disorder, rather than allowing these individuals to go unrecognised with symptoms becoming increasingly entrenched and causing significant psychosocial problems.

\(^3\) The recommendation to conduct a face-to-face interview every three years is based on expert opinion. It reflects feedback received through consultations, which indicated that such contact is valued at all levels of the ADF, while taking into account the resource burden that would be imposed by a more frequent face-to-face interview process. Face-to-face interview would also counter the possibility of consistent underreporting that was raised as an issue thru the consultations.
Non-deployment related mental health screening

As mentioned previously in this document, deployment in and of itself does not appear to be linked to the onset of mental disorders. Indeed, the prevalence of mental disorders and trauma exposure is similar between those deployed and those not deployed, highlighting the need for regular screening of non-deployed personnel also. There is, however, a relationship between deployment-related exposures and mental disorder, suggesting that retaining a post-deployment mental health screen is appropriate. This is also consistent with most, albeit not all, screening programs in other countries.

Special populations

Within the frameworks is the provision for managing the particular screening requirements of populations of members who are regularly exposed to stressful events that do not meet the criteria of a critical incident (and therefore do not meet criteria for a CIMHS). This includes screening around deployment (e.g., RtAPS and POPS) and screens for non deployed members who undergo significant stressful challenges (see Special Mental Health Screens below).

Face-to-face post-screen interview

The frameworks require a post-screen interview to be conducted whenever a member participates in a screening event that has a face-to-face component (i.e. RtAPS, POPS, CIMHS, SHE, PHE etc). This post-screen interview is also conducted when a member scores above threshold on the standardised screening battery and attends a face-to-face follow-up assessment. This interview aims to guide the clinician in making decisions about whether a referral is indicated. Although substantial clinical judgement is required in this process, there are benefits to making the interview as standardised as possible. It

4 Note that the face-to-face post-screen interview will occur in some circumstances where the member scores both above or below threshold (by nature of the screening event, e.g. RtAPS). In the instance of the member scoring below threshold on the standardised screening instrument battery clinicians should be advised to use their clinical judgement regarding the depth at which the post-screen interview needs to be conducted. It would be expected that some, but potentially not all components of the post-screen interview described above would be relevant in these circumstances. For example, the post-screen interview conducted as part of the triennial face-to-face screen when a member scores low on the standardised screening instrument battery might include only a discussion about current life circumstances and current stressors – clinical judgement will determine what needs to be assessed.
is beyond the scope of this report to detail the actual interview, but it is likely to be structured around two broad areas:

- **Current mental state and functioning**: The interview would follow up on the standardised screening instrument battery completed as part of the (online) process, exploring the frequency and intensity of any reported symptoms and/or substance abuse. If there is any suggestion of depression or overt suicidality, a full risk assessment should be completed. Any recent behavioural changes should be explored, including aggression/irritability, especially if commented upon by others. Finally, a brief review of current social and occupational functioning is recommended.

- **Risk and protective factors**: The key factors shown by research to predict the development and maintenance of disorders such as PTSD and depression fall broadly into three main areas, which should be covered at least briefly:
  
  (i) **Prior history**: Although asking about inherited characteristics such as genotype and gender is clearly not appropriate, areas such as personality (particularly “neuroticism”: general tendencies towards anxiety and depression), adverse childhood experiences, and prior trauma can be explored.
  
  (ii) **Stressful life events**: The clinician should inquire about recent and, if appropriate, lifetime traumatic event history. This may include two categories of event:
    
    a. Exposure to traumatic events (or potentially traumatic events) such as threat to life or exposure to the suffering of others (an example of a short scale to measure this can be found in Appendix 2). This may be facilitated by using a list of common events that can be reviewed by the clinician and discussed with the member. “Psychometric” use of such scales (e.g., using total scores or cut-offs), however, is not recommended. This is because one single event may be more psychologically damaging than multiple other events.
    
    b. More common life stressors such as financial, health, relationship, and occupational problems that are a common precipitating factor for mental health problems such as depression, particularly when multiple events occur concurrently or in close proximity.
(iii) **Current circumstances**: The key factors in this domain are social support (the ability to access and use naturally occurring support networks), current life stress (as above, with particular reference to relationship difficulties), and current coping strategies (including both adaptive and maladaptive strategies).

Finally, the interview should inquire about perceived need for self-help and/or professional assistance. Taken together, the responses to the above questions will guide the clinician in making decisions about whether a referral is indicated.

**Framework 1**

This MHSC framework consists of a set of ten screening events (see Figure 2 below). Six of the screening events (represented by navy blue) are independent screening events in that they occur for specific reasons (e.g., deployment, critical incident) and are already established ADF processes. Two screening events (represented by grey) are dependent screening events in that they only occur in the absence of any prior screening (i.e., they are initiated ONLY if the member has not already completed one of the independent screening events during the requisite time period). One screening event (represented in grey and green) is voluntary and is not dependent upon any other events. Members can take a voluntary screen once, many times or never. The final screening event occurs only once in the lifecycle of the ADF member, at discharge (represented by pale blue). Figure 2 provides a pictorial representation of the MHSC Framework 1.

Within this model, the independent (navy blue) screening events take precedence over the dependent (grey) events, such that a dependent screening event only occurs in the absence of any independent event within that 12-month cycle (or 3-year cycle for a face-to-face screening event). For example, if a member receives a POPS (independent), then they are not required to do another online screen (dependent) for the next 12 months. The voluntary Check-In Online Screen (ChIO) can be completed at any time, any number of times per calendar year. This screening event is initiated by members themselves and is anonymous; therefore, completion of this screening event does not count towards the requirement for one mental health screening event per 12-month cycle.
The details of each screening event for Framework 1 are presented below.

Independent screening events

**Periodic Health Examination**

The Period Health Examination (PHE) will be expanded to include the standardised screening instrument battery which will be completed online prior to the examination (in a similar timeframe to the members health questionnaire part of the PHE). Note that as per
the ADF Health Manual Volume 3 Chapter 2 Annex B, the PHE currently already includes the K10 and the AUDIT, so only the PCL needs to be added.

If the member scores above threshold on the standardised screening instrument battery, the Medical Officer will continue with the standardised post-screen interview to determine if a further referral is required. The MO (or administrative support staff) will acknowledge the completion of the screen and post-screen interview in the data management system. If the member has not undertaken a face-to-face post-screen interview in the last three years, for example, as part of a post-deployment or critical incident screen, the PHE will serve this purpose.

**Critical Incident Mental Health Support**

The CIMHS will continue to be administered as currently mandated, including a mandatory face-to-face post-screen interview. However, the standardised screening instrument battery (completed online if possible) will replace the current screening questionnaires (i.e., the ASDS replaced by the PCL) and, as such, the CIMHS screen will be shorter to administer and score.

**Return to Australia Personnel Support**

The name of RtAPS will be changed to Return to Australia Personnel Support. This is to reflect that RtAPS serves a broader purpose than pure screening. RtAPS will continue to be administered as is currently mandated and utilise the standardised screening instrument battery without the AUDIT (completed online if possible). Other existing questionnaires that provide operational information will be maintained.

**Post Operational Personnel Support**

The name of POPS will be changed to Post Operational Personnel Support. This is to reflect that POPS serves a broader service than pure screening. POPS will continue to be administered as is currently mandated and utilise the standardised screening instrument battery (completed online if possible).

**Mental health service system**

The MHSC Framework acknowledges that, in a given 12-month period, approximately 18 percent of the ADF workforce will be receiving care from mental health services within Garrison Health (Van Hoof, Searle, Tran, & McFarlane, 2012). If the member’s pathway to mental health services did not involve a particular screening event, then members will
be required to complete the standardised screening instrument battery (online if possible) as part of their entry to clinical assessment and this will count toward the member’s requirement for an annual (or triennial) mental health screen.

**Medical Officer mental health screen**

When a member visits a MO for any reason during the 12-month screen cycle, the MO may choose to conduct the standard screening instrument battery (note that this will not occur during sick parade). This would normally occur only once during the 12-month cycle unless there is a clinical reason to do so more frequently. If the member scores above threshold the MO will continue with the post-screen interview to determine whether intervention is required, what that intervention will consist of, and how that intervention will occur. Similarly, if a face-to-face mental health screen is required (i.e., one has not been completed in the last three years), the MO may choose to complete that at the visit. The MO (or administrative support staff) will acknowledge the completion of the screen in the data management system. Given that the screen will be administered infrequently (i.e. not at every visit and at the preference of the member), it is not anticipated that its introduction to MO visits will act as a deterrent to individuals seeking help for physical illness.

**Special mental health screens**

This is a group of screening events that aims to increase the responsiveness and flexibility of the MHSC. This group of screening events can be requested at any time by commanders or other senior personnel who have concerns about the mental health of their members. A number of existing screens fall under the category of Special Mental Health Screening Events, including screens developed for specific operations that have exposure to particularly stressful or traumatic events (such as the Mental Health and Wellbeing Questionnaire (MHWQ) developed for Operation Resolute). The Special Psychological Screen would also fall under this group of screens.

Under this group of screening events is a new screening event – the Command Requested Mental Health Screen (C-Req). The C-Req allows commanders to request screening for members they identify as being at high risk due to their role or other circumstances. To trigger this screening event, Commanding Officers will contact Joint Health Command to discuss their concerns and together a decision will be made as to whether the screening event is the most appropriate response. The standardised
screening instrument battery will be utilised (completed online), along with any other screens that JHC suggests as being particularly relevant to the role or circumstance.

Dependent screening events

**Annual online mental health screen**

Should a member not participate in any of the independent screening events within a given 12-month cycle they will be required to complete the standardised screening instrument battery online. This is an identifiable mental health screen and the website will register that the member has completed the screen. The website will contain psychoeducational information as well as the standardised screening instrument battery. Upon entering the website, the member will be provided with the rationale for screening, emphasising that good psychological health is an important part of wellbeing and operational effectiveness. They will be provided with information about what will happen if they score above threshold on the screens, and their rights. Issues of confidentiality will be addressed explicitly. They will also be advised that if they do not score above threshold but want to speak with a mental health professional about their wellbeing, they can request a follow-up call. All those who score above threshold will be followed up by a mental health professional and the post-screen interview will be administered to identify the appropriate follow-up response (more information about this process is described below in the Referral Pathways section).

**Triennial face-to-face mental health screen**

Alongside the annual screening cycle will run a three-year face-to-face interview cycle. Every third year members who have not completed a face-to-face interview as part of other screening events will be required to do so. The member will be able to choose whether this triennial face-to-face interview will be conducted by an MO or a clinician within Mental Health Services. This interview will reflect back the screening results and if the member scores above threshold on any of the screens, the post-screen interview will be conducted. If the member scores below threshold on the screens, then a modified version of the post-screen interview will be conducted at the clinician’s discretion.

**Check-in online mental online screen (ChIO screen)**

A website will be developed for members to access at any time, as many times as they wish. This website will allow members to complete screening questionnaires
anonymously and be provided with information regarding referrals, extra support, and ideas for next steps. It will also be possible for family members and peers to access the website and find information. The website will be somewhat similar to the US Military Pathways website (https://www.militarymentalhealth.org/). A detailed overview of the content and purpose of the website, suggested areas where ADF could improve upon the website, and screen shots, are presented in Appendix 3.

One time screening event

**Separation Health Examination screen**

The SHE is mandated to occur within six months of a member’s discharge out of Defence. The standardised screening instrument battery will be administered as part of this health examination. If the member scores above threshold the MO will continue with the post-screen interview to determine whether intervention is required, what that intervention will consist of, and how that intervention will occur.

**Summary of the process for members**

Bringing the above information together, the process from the perspective of an ADF member is as follows.

- Any time the member wishes, he/she will be able to visit the ChIO screen website anonymously, to access information about mental health and to take the screening battery where simple feedback and advice would be provided.

- If the member undergoes any of the psychological screens, health checks, or MO visits outlined in the framework above (e.g., shown in Figure 2 as dark or light blue), the standardised screening instrument battery will be conducted as part of that process (but only once in a 12-month cycle). The member will complete the screen and the data will be logged automatically in his/her medical record on the Defence e-Health System. If the member scores above the cut-off (or shows other indications of need for mental health assessment/treatment), the person administering the screen will organise the post-screen interview to occur. That information will also be logged on the Defence e-Health System.

- If the member goes for a period of 12 months without a mental health screen, he/she will receive a reminder email from the Defence e-Health System to log on and complete the annual online screen. The data will be recorded automatically in
his/her medical record. If indicated by an above threshold screen, the member will be given information about where to access a post-screen interview (e.g., MO visit, contacting the nearest intake officer). If the member fails to attend a follow-up assessment within two months, the Defence e-Health System will send notification to the screening administration officer who will contact the member’s closest intake officer (or equivalent health administrator) to organise a follow-up assessment.

- If the member goes for a period of three years without a face-to-face mental health screen, the Defence e-Health System will notify the member that they are due for their triennial screen, and provide information about how to access this screen (e.g., through an MO visit or intake officer assessment referral once the member has completed the annual online screen). If the member fails to complete this event (including both the online screen and the post-screen interview) within two months\(^5\), the Defence e-Health System will send notification to the screening administration officer who will contact the member’s closest intake officer (or equivalent) for a follow-up assessment.

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\(^5\) The recommendation that members attend a follow-up assessment within 2 months of its due date is based on expert opinion. This timeframe has been suggested in order to allow time for the necessary processes to occur, in terms of the member organising an appointment, arranging time off to attend, and so on. It is suggested as a guide to the maximum time between screening and follow-up, and does not preclude a follow-up assessment being completed sooner where possible.
Framework 2

Framework 2 takes a minimalist approach to screening and consists of the six independent screening events presented above (which already occur as part of normal ADF practice), the voluntary ChIO screen, and the SHE screening event. Thus, Framework 2 involves the removal of both the annual screen and the triennial face-to-face screen (two dependent events). However, significantly it does not utilise the Defence e-Health System so does not have the high level of coordination and monitoring as the other two frameworks. Figure 3 below provides a pictorial representation of the MHSC Framework 2.

![Figure 3: Mental Health Screening Continuum Framework 2](image_url)

Australian Centre for Posttraumatic Mental Health © 2014
The intent of Framework 2 is to provide a framework that has minimal additional resource implications for Defence and its members. Framework 2 takes the screening events currently offered by Defence and increases their consistency by standardising the screening instrument battery. It allows for the administration of the standardised screening instrument battery during medical officer visits and it expands mental health screening options under the C-Req screening event. It also allows the opportunity for members who do not participate in any independent screening event to choose to participate in mental health screening through the voluntary ChIO screen via the Wellness Portal (see below for a description of this proposed website). Therefore this framework, although minimalist in design, is still an enhancement of current screening practices.

This framework represents the most minimal burden on existing resources and is based primarily on existing practice with the addition of the Wellness Portal and a standardised screening instrument battery across all screening settings. It does not utilise the Defence e-Health System and is, therefore, not dependent on that system being active. It also does not, however, require that all Defence members will receive the standardised screening instrument battery in a given 12-month cycle. Furthermore, because the ChIO screen is anonymous, the data collected cannot be linked to a particular individual. Underpinning this framework is the notion that most members who are involved in high risk events will be screened via the deployment-related screening events (RtAPS and POPS), CIMHS, or a Commander Requested Screening Event. Medical Officer screens should also pick up those members who have developed mental health problems outside a specific high risk event. However, in this framework more emphasis is placed on the responsibility of the member for their own mental health by relying on the voluntary ChIO screen to assist members in identifying their own mental health needs.

Framework 2 is consistent with Framework 1. As such, it could be adopted as an interim developmental stage until the Defence e-Health System is fully functional.
Framework 3

Framework 3 builds upon Framework 1 and represents the most elaborate MHSC framework. There are two key points of difference between Framework 1 and Framework 3.

First, Framework 3 adds an additional screening event, Recruit Training Screening, to the screening events presented in Framework 1. This will require that members are screened shortly after commencing their service with the ADF (within one month of joining). This screen will be completed online (as per a standard annual screen), with face-to-face post-screen interviews conducted with those scoring above the threshold. This will provide important baseline mental health screening information against which to compare subsequent adjustment. It will also make possible the identification of those who may require some assistance in adjusting to military life, providing an opportunity for early intervention before problems become entrenched and maladaptive coping strategies develop.

Second, Framework 3 incorporates a substantially more sophisticated coordinating and reporting system that will underpin the framework. This reporting system will allow health professionals to see a member’s trajectory of screening scores over time, which is one of the most useful ways to use repeated mental health screening information. This approach recognises that mental health and wellbeing fluctuate over time and that the trajectory of symptoms – particularly when matched against key lifecycle events such as deployments, postings and promotions – provides valuable clinical information. The addition of the recruitment screen allows the full lifecycle to be monitored on an annual basis throughout the member’s career. The use of actual scores for each instrument will show subtle variations in the nature and severity of symptoms, facilitating clinical decision making.

As well as providing individual trajectories for clinical use, Framework 3 will produce de-identified group or cohort-based reports. This will allow commanding officers to examine the mental health of their workforce overtime and will be a unique source of data to better understand and predict key patterns in psychological health and wellbeing, as well as their relationship to other factors such as age, length of service, and multiple

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6 The Recruit Training Screen is recommended based on expert opinion regarding the clinical value of having a baseline assessment which can inform knowledge of mental health trajectories over time.
deployments. Such information has the potential to be of enormous value in making workforce planning decisions such as those designed to improve operational effectiveness, retention, unit capability and cohesion.

Framework 3 is presented graphically in Figure 4.

![Figure 4: Mental Health Screening Continuum Framework 3](image)

**Final comments on the frameworks**

The three MHSC frameworks presented above have been guided by the aim to:

(i) minimise the screening burden on ADF members while maximising opportunities to
identify mental health problems, and (ii) minimise the resource burden that comes with the administration of mental health screening processes. Framework 1 is the one recommended by ACPMH, with Framework 2 representing a minimal approach, and Framework 3 representing an enriched approach. The rationale for selecting Framework 1 over the other two models presented is comprised of a number of reasons:

- Provides an opportunity for all members to complete a mental health screen and have a face-to-face post-screen interview on a regular basis (compared to Framework 2)
- Gives the leadership at ADF confidence that all members are being provided with multiple opportunities to enter into the health care system (compared to Framework 2 which is more limiting)
- Less of a resource burden than Framework 3 which encompasses an additional screen after recruitment.
- Many of the advantages of Framework 3 such as the heavier emphasis on data reporting / tracking can be integrated Framework 1 once it has been established.
- Provides an overall balance between the three frameworks presented, not as resource intensive as Framework 3 but more comprehensive than Framework 2.

It is worth noting that if Framework 2 is not accepted as the final model, it could usefully be considered as the first stage of development towards Frameworks 1 or 3. Central to Frameworks 1 and 3 is an information processing system that acts to coordinate the screening events and the data produced from them. Further details of this system are presented below in the implementation guide. This guide will also provide advice on the recommended rollout of the chosen framework.

**Referral pathways**

When the standardised screening instrument battery is administered as part of a face-to-face process and the member scores above threshold, the health provider will conduct the post-screen interview and may make a referral to a mental health specialist for further assessment and/or treatment if appropriate. This will be no different to current practice. As part of the MHSC framework, however, the face-to-face assessment will consist of the post-screen interview (that has been described earlier – see Face-to-Face Post-Screen Interview) which is an attempt to increase consistency and reliability of this assessment. Note that this face-to-face post-screen interview is the same regardless of
the setting in which it is conducted (e.g., RtAPS, POPS, CIMHS, PHE, etc.), and is the same for members scoring above threshold in the annual online screen and those undergoing a triennial face-to-face screen.

When the annual screen is completed online and the member screens above threshold they will be given two options for follow-up. They will be advised to either: (i) make an appointment to visit their MO, or (ii) call their local Garrison Health organisation to arrange a face-to-face post-screen interview with a mental health clinician. If it is not possible (or reasonable) for the member to attend Garrison Health, the clinician may take the option of conducting the post-screen interview over the phone.

If the member fails to present for this face-to-face post-screen interview within a given timeframe (two months), the information technology coordinating system will send the member’s details to a screening administrative officer. This is a new ADF administrative role and is envisaged to be a high level administrative person who is familiar with issues surrounding confidentiality and sensitivity of data. The screening administrative officer identifies the location of the member and then contacts the nearest intake officer (or appropriate equivalent) who would then follow up with the member to conduct the post-screen interview. The same process will occur should the member fail to attend the triennial mental health screening event. The screening administrative officer will also run reports on screening data as requested by ADF leadership (Framework 3 only) and provide basic help to members as required (e.g., explaining which part of the website to log in to).

The next section of this report will provide a guide to implementation that will cover system and organisational readiness, stakeholder engagement, ongoing support and monitoring and review.
Chapter 5 – Implementation guide

The following section describes a guide to the implementation of the MHSC framework. It focuses not only on the initial set up of the framework but also on longer term support and evaluation to ensure sustainable adoption of the screening continuum across the ADF health system. Given this, implementation is presented as an ongoing cycle which includes: (i) organisational and system readiness, (ii) stakeholder engagement, (iii) ongoing support for change, and (iv) monitoring and review. This cycle is presented below in Figure 5 and each of these sections will be described in more detail below. This implementation guide will outline a number of issues for consideration including infrastructure, staffing, policy, leadership, factors likely to affect acceptability (or “buy-in”), access to screening for members, and efficient use of screening by providers. While many of these issues will be shared across all three proposed frameworks for the MHSC, any points of difference will be identified.

It should be emphasised that implementing a system as comprehensive as this across an organisation as large and diverse as ADF will inevitably encounter teething problems and atypical cases that require resolution. It is essential that structures are in place to “problem solve” these issues promptly as they arise.
Figure 5: Implementation model overview

- Establish information technology coordinating system
- Establish IT and administrative support required
- Policy development and leadership roles
- Conduct appropriate training for clinical staff

- Engaging members and command
- Engaging health practitioners
- Managing a potentially complex message
- Engaging leadership

- Monitoring outcomes
- Monitoring resource demands
- Review processes integral to implementation

- Champions and clear leadership
- Teams facilitate change - make screening part of team process
- Health practitioners: use of data to reinforce behaviour
- Ongoing clinical, admin and IT education and support
Operation and implementation: The MHSC Framework in practice

I. System and organisational readiness

Establishing an information technology coordinating system

Central to two of the three frameworks is the information technology system which will coordinate the screens, store data, and generate reports. This linking system will be made up of two computer systems – the Wellness Portal (also used in Framework 2) and the Defence e-Health System.

The Wellness Portal will be a web interface that sits outside the Defence Restricted Network and would be accessible from any computer or smartphone. The Wellness Portal will contain some educational materials but will essentially be designed for data entry and simple computations. This is the portal – or website – through which the screening instrument battery will be completed. Following completion of the standardised screening instrument battery, the Wellness Portal will send summary data to the Defence e-Health System for storage on the member’s medical record. The data sent will depend on the framework chosen. This process does not occur in Framework 2. In Framework 1 it would be restricted to simple and brief numerical data, and whether the member crossed the threshold on the screening battery; there would be no text entry. Framework 3, however, would have more detailed data sent (including scores on individual items). The Defence e-Health System will also be responsible for tracking compliance, and sending reminders to members.

Wellness Portal

The Wellness Portal will have two functions. First and foremost, it will function as a web interface to allow the screening instrument battery to be completed and scored. Second, it will be a source of simple self-care information, including links to other useful sites.

This system will have three entry points:

- **Voluntary:** This allows members to complete the anonymous, self-initiated screening battery at any time (the ChIO screen). The screening battery will be scored and the user provided with simple feedback which may involve, for example, direction to
appropriate educational material and/or websites, as well as details of how to access professional help if required (see the framework section above for further details on the ChIO screen). No data will be sent to the Defence e-Health System for this screening event.

- **Annual screen:** This entry point will be used by members who have been sent a reminder email or text message by the Defence e-Health System to complete their annual online screen. (As noted above, these are members who have not completed the battery as part of another screening event). An algorithm that sits behind the screening battery will score the screen and, if the individual screens above threshold, they will be given a number of options to complete a face-to-face screen as described earlier (referral pathways section). Summary information from the screening battery (with the level of data sent dependent on the framework selected) will be sent to the Defence e-Health System. In addition, the member may request a face-to-face post-screen interview (and, via that process, possible referral for mental health care) through the Wellness Portal even if their scores are below the cut-offs.

- **Face-to-face screen:** Many members will complete the standardised screening instrument battery as part of another process such as RtAPS, POPS, a periodic health examination, or a voluntary MO visit. In such cases, the health provider may be physically present while the member completes the screening battery. Therefore information via this entry site will need to reflect the presence of a health care provider. The online battery may be completed via computer, smartphone or other IT interface, whichever is most convenient. (In rare circumstances where online entry is not possible, a paper and pencil form will be used). Upon completion of the battery, the health care provider will identify whether the member has scored above threshold. If so, the health care professional will conduct the post-screen interview to determine whether referral is required. Upon completion of this, the health provider will log in to the Defence e-Health System and indicate whether the member was offered a referral for specialist mental health care.

Note that, for Framework 2, the Wellness Portal would only incorporate two entry sites: the voluntary screen (the ChIO screen), and an entry for members undertaking RtAPS, POPS, PHE, etc (i.e. a screening event in the presence of a practitioner).
The Wellness Portal, therefore, requires:

- an engaging front page showing the three entry points (or two for Framework 2)
- an online form to enter responses to questions
- the capacity to score the three scales and determine whether the user is above the cut-off on each
- the capacity to use the scale scores to generate standardised feedback to the user regarding their mental health status (3 to 4 plain language responses based on scoring ranges)
- the capacity to provide those who screen above threshold with the two options for undertaking a more detailed assessment
- the capacity to link the user from the feedback screen back to specific educational materials and/or useful websites
- the capacity to allow the member to request a referral even when scoring below cut-offs (for the ChIO screen only)
- the capacity to send data to the Defence e-Health System.

**Defence e-Health System requirements**

The key tasks for the Defence e-Health System would be: a) tracking compliance and sending reminders; b) receiving information from the Wellness Portal; c) storing the results of the screening instrument battery on the member’s record; and d) providing aggregate reports on request (Framework 3 only).

- **Tracking and compliance:** Whenever the member completes the screening instrument battery, regardless of the setting in which that occurs, the member’s annual “clock” will be reset. If the member goes for 12 months without completing the screening battery at all, the Defence e-Health System will automatically generate a reminder to the member (via email or text according to the member’s preference) requesting that they complete the screen within three months. Repeat reminders will be sent (e.g., fortnightly) until the online screen is completed; each reminder will note that, if the screen is not completed by the set date, the member’s CO will be informed. Similarly, if the member goes for 3 years without completing a face-to-face screening event, the Defence e-Health System will notify the member and provide them with options about how to arrange their triennial mental health screening.
event. If the member does not follow through and complete their triennial mental health screening event within three months, the Defence e-Health System will automatically generate a message to the screening administration officer who will then contact the closest health intake officer (or appropriate equivalent) to the member’s location and they will be required to contact the member to provide him or her with information about how and where to do the triennial mental health screening event, and encourage the member to attend.

- **Receiving information from the Wellness Portal:** When the member has completed the annual screen (regardless of context) the data will be sent to the Defence e-Health System for storage on the member’s record. For the annual online screen, the Defence e-Health System will record: i) date annual screen completed; ii) yes/no cut-offs for each of the three screening measures; and iii) self-initiated request for referral (yes/no). For the face-to-face screening events, (a) and (b) will be recorded along with whether the person was offered a referral (yes/no). In Framework 3 all the above information would be recorded, as well as additional information including actual scores on each individual question in the screening battery.

- **Referral:** For those undergoing a face-to-face screening event, referral will be managed by the health provider and recorded as above. For those completing the annual online screen, the Defence e-Health System will follow up those who screen over threshold and who fail to have a follow-up assessment within a three month period by sending this information to the screening administrative officer.

- **Storage:** The information provided to the Defence e-Health System from the member’s screen will be recorded on the medical record in a form that is easily accessible each time the record is accessed.

- **Reporting:** Simple reports will be generated for health care providers who wish to see a member’s screening battery information. The information on these reports will include when screening events were conducted, whether or not members scored over threshold on each of the screening instruments, and referral information. Framework 3 would include more detailed reports, including graphical displays of severity scores over time for an individual member on each of the three screens. Another report that Framework 3 would be able to generate is de-identified aggregate reports of a group of members, which may be of value to Commanding Officers. If Framework 3 was adopted, storage of mental health screening data on
the Defence e-Health System would be in a form that allowed the database to be interrogated for simple de-identified aggregate reports (e.g., percentage of unit members meeting cut-offs in the last 12 months).

**Paper versions**

Paper versions will be provided for the rare situations in which computerised data entry is not possible. These paper versions will be returned to the Directorate of Occupational Psychology and Health Analysis (DOPHA) and entered into the Wellness Portal when the forms are returned to ensure that all data are stored on the same system. It should be noted that in the majority of circumstances it is expected that members will have access to computers or smartphones to complete the screening battery. The exception to this may be when returning from a deployment in which case there is a pre-existing process and system for collecting paper based versions of questionnaires. When a member is on deployment (and therefore in the least likely position to be accessing technology) it is not expected that they will be required to complete the annual screening event during this time period (since they will be picked up by either RtAPS, CIMHS or one of the Special Mental Health Screens – and therefore will fulfil the requirement of completing an annual screen through these events).

**Establishing IT and administrative support required**

The information technology coordinating system described above with linkages between the Wellness Portal and the Defence e-Health System, would require ongoing IT and administrative support. Specifically, it would require:

- The development of a user guide for the system, with detail around the different entry points and the role of IT, administration, health providers and members.
- Appropriate training for those involved in administering the system.
- Provision of a central number to call if members cannot access the website. It is recommended that one number be provided for IT support and a second number be provided for the screening administrative officer who can recommend ways to access other screening or other mental health support if required.

**Conduct appropriate training for clinical staff**

The requirements for clinical staff should be comfortably within their existing expertise, although some training will be required. These personnel will require training in how the
system works – the overall picture, how to access the Wellness Portal and enter data, what the new records on the Defence e-Health System will contain, and so on.

The primary role for clinical staff (defined as psychologists, MOs and those from mental health teams) will be conducting the post-screen interview and making decisions regarding whether a referral for treatment is required (and, if so, to whom). This is a role that is essentially already being carried out by the health providers in the screening events described above (such as RtAPS, POPS, CIMHS, etc.), the only difference being a move to a more structured approach. Although it is not necessarily a role currently being carried out by MOs in Garrison Health settings, the conduct of the post-screen interview and determination for referral or not is well within the range of skills that could reasonably be expected of, for example, a general practitioner.

Nevertheless, in addition to training in the system administration, the clinicians will require some training in the post-screen interview. While it is important not to undermine clinical judgement, the more the post-screen interview can be administered in a standardised fashion, the greater the reliability will be. Thus, a manual should be prepared with sample questions for each area, along with a guide for interpreting responses. We recommend that this be supplemented by brief (e.g., 2 hour) in-service training for all those administering the post-screen interviews in order to optimise consistency.

**Policy development and leadership roles**

Each of the three frameworks involves changes to existing screening protocols, screening entry points and, to some extent, the role of screening (no longer being linked only to a critical incident or deployment). Thus, clarity around policy, leadership, and the place of screening in the service delivery model is crucial for effective implementation of the change. This will require:

- Provision of a consistent and accessible message about the screening continuum through an overarching policy on screening and policy linkages.
- Establishment of leadership roles in the MHSC roll-out at the level of JHC as well as local health regions. It will be important to be clear about who owns the MHSC and who reports to whom if there are problems. It is suggested that a steering group be established to take oversight of the setting up, monitoring and adjusting of MHSC framework implementation over a period of one to two years.
• Establishment of local administrative systems to support MOs taking up screening or to help with ensuring computers are available for data entry (e.g., practice managers may need to set up an appointment system to include screening time when required). Practice managers and others providing administrative support to clinicians may need to be consulted and be provided with a clear mandate to help ensure the smooth running of the MHSC framework.

II. Stakeholder engagement

Engaging members and Command

A key challenge in the implementation of an enhanced screening continuum will be engaging members in using a flexible system that requires some initiative and “buy-in” on their part. Getting buy-in will be particularly important to ensure that members and commanders understand that the screening process is not primarily about surveillance but about helping people access mental health services. An education campaign aimed at members and commanders will be crucial so that they understand the role of screening and the assessment and referral process attached to screening. It should be coordinated or embedded with existing education about mental health so that stigma associated with help-seeking is addressed and so that information overload is minimised. Use of reminders with attached consequences (via the Defence e-Health System) will be important in enforcing participation in the annual screening event.

Each framework requires a whole-of-service approach where screening will be the responsibility of both mental health clinicians and MOs, and will require a coordinated approach to managing those scoring above threshold through the annual online screen. As such, it will be critical to ensure wide-spread buy-in across JHC. In addition, as members will now be expected to participate in screening events regardless of their deployment status or exposure to critical incidents, they will need to be educated alongside their commanders about the new system. An overview of engagement strategies are listed in Table 1. Particular issues to prioritise when engaging stakeholders in the implementation of the framework are detailed below.

Engaging health practitioners

It should be emphasised again that for a significant number of members, the requirement for completing an annual online screen and a three-yearly face-to-face
screening event will be conducted in the context of screening events that already exist, so the additional workload should not be over-estimated. Nevertheless, the MHSC relies on a whole-of-service approach rather than the previous model which relied heavily on mental health staff. This will mean getting buy-in from MOs about adding another role to what many perceive as an already busy workload (although it should be acknowledged that routine mental health check-ups in general are not outside the mandate of an MO and in fact are encouraged / expected through the Better Access Australian government initiative). Mental health providers already involved in screening events may perceive the requirement of a triennial face-to-face screening event as an additional burden that they are under-resourced to bear. The drop in operational tempo (for some services) and screening associated with deployment may not change this perception. Consistent and ongoing education will be needed both to promote acceptance of the MHSC and to ensure that all involved have the skills to screen and conduct a brief post-screen interview if required. Workshops with skill development components and academic detailing have been shown to be effective in changing medical and/or mental health professionals’ clinical behaviour, while didactic training or written instructions alone have not proven effective. Engagement will also be bolstered if a barriers and needs analysis is conducted regarding screening at a regional level, so that staff can be engaged in discussion about implementation early on.

**Engaging leadership**

Getting buy-in across JHC branches and amongst Regional Health Directors as well as local health service managers will ensure that messages provided through policy and education are reinforced at the local level. Ensuring that managers are involved in early identification of problematic issues for implementation and are asked to report on implementation progress (e.g., impact on workflows) will also facilitate and promote buy-in. See Table 1 for more detail.

**Managing a potentially complex message**

The MHSC provides more varied entry points to screening. While this makes the new system more user friendly, it also makes the message about the screening system more complex. The introduction of universal screening (rather than simply screening those involved in high risk events) adds another level of complexity. Providing clear, detailed instructions will be essential.
III. Ongoing support

In order for the adoption of the MHSC to be useful, functional, and sustainable, it is important to consider strategies that will help maintain buy-in and participation in the screening process over the longer term.

Champions and clear leadership

Nurturing long-term champions amongst health practitioners, Commanders and members is an effective way of enhancing adoption and maintenance of new programs. Choosing people who are well known and respected, yet who are also “credible” models to advocate for the importance of the screening process can go a long way to ensuring success. More broadly, there is good evidence that, in order to embed change in clinicians’ day-to-day practice, strong leadership and management is crucial. If senior JHC personnel are clearly and unequivocally supporting the model, clinicians will be more likely to engage productively. Clear and regular messages from regional health directors, making screening an explicit part of the job description, and monitoring implementation through supervisory processes will all assist.

Screening as part of the team process

Taking a team approach to the introduction and maintenance of the MHSC is an important component of implementation e.g., 80. For example, changed practices and experiences with the screening procedures should be a regular topic for discussion at team meetings and should become part of the team’s overall agenda. Team members are then in a position to support and encourage each other in ensuring the success of the initiative.

Use of data to reinforce behaviour

One of the most effective ways of ensuring engagement with a new initiative is to demonstrate the benefits for those involved – in this case, the ADF members and clinicians. The opportunity for members to get regular feedback on their psychological health – with a view to optimising their wellbeing, as well as social and occupational functioning – should be marketed as a strength of the new system. Similarly, clinicians should be able to see the benefits to their patient management of having the data available on medical records. It is stating the obvious to say that psychological health
and physical health are closely related; the MHSC gives clinicians an opportunity to access key information about their patients regularly and simply.

Although there is less evidence that getting feedback on performance based on data (e.g., screening statistics compared to other regions/staff, referral to screening ratio) is helpful, it nevertheless provides benchmarks to identify outliers and to enhance consistency across settings.

**Ongoing education and support**

For the MHSC framework to be successful in the longer term, ongoing education and support for both administrative and clinical personnel will be important. This does not have to be onerous, but it does need to be regular and easily accessible. Teething problems and atypical scenarios will inevitably arise and it is important that help and support are readily available. Further training (perhaps in the form of email updates, or as part of scheduled professional development events) may be beneficial from time to time. A particular area for ongoing support may stem from resource demands. As noted in detail below, it is difficult to predict the extent of any potential increased load. If it turns out to be significant, high level support to address the concerns of those involved will be essential to the ongoing success of the model.

**IV. Monitoring and review**

**Monitoring outcomes**

Monitoring desired outcomes of an annual cycle of screening will be an important consideration during the initial set up of the screening process and the ongoing engagement of stakeholders. Data collection and reporting systems in the Defence e-Health System will need to be set up so that the ADF can track not only the process of screening (e.g., numbers of screens conducted) but also the impact of the MHSC on the number of members referred for further assessment (e.g., proportion of positive screens that result in referrals for further assessment). Similarly, early decisions about key messages to be disseminated to stakeholders about the role and purpose of the MHSC will need to match data being collected. For example, if the role of the annual screen in helping people access services is emphasised in dissemination materials, it is important that data regarding referrals following screening can inform future planning and ongoing
implementation of the MHSC and can be provided to key stakeholders to reinforce the long-term adoption of the MHSC.

**Monitoring resource demands**

There are several unknowns about resource demands for rolling out the MHSC and some staff groups have expressed apprehension about workloads. It will therefore be important to track the cost and workload implications of the administration of face-to-face screening events, the referral and assessment process resulting from screening, administration and IT support, and ongoing implementation strategies (e.g., education of Commanders and members). Regular online surveys or reporting from Regional Health Directors could be used to monitor this over time.

**Review process integral to implementation**

It would be valuable to use data collected through the Defence e-Health System, surveys, or reports from health regions to inform ongoing implementation. Ideally, a steering group would be established to guide the long-term implementation of the MHSC, and this steering group could use the data to adjust plans at national or local levels to ensure that screening is used effectively and sustainably.
### Table 1: Engagement map

<table>
<thead>
<tr>
<th>Stakeholders group</th>
<th>Suggested engagement strategies</th>
</tr>
</thead>
</table>
| JHC – across all areas from Mental Health, Psychology & Rehabilitation Branch to GHO | - Ongoing implementation working group that involves high level decision makers across all relevant branches.  
- Review of policy and policy linkages that involves consultation with all relevant branches.                                                                   |
| GHO – Regional Health Directors and managers of local health services                | - Overarching policy on screening that is linked to other policies such as operational screening and CIMHS.  
- A brief survey of potential impact on region including intake system, resource needs, and staff climate. Use to inform overall implementation plan.  
- Running pilots across sites that cater primarily to one of the three Defence services may help plan and engage regions in process.  
- Provide a call for action that delineates Regional Health Directors’ and managers’ roles in rolling out screening in their region, including adaptations to local need.  
- Provide a document that describes screening in a clear and engaging way, including its aims, benefits for members, how screening information will be used, and how screening will impact on service system and staff roles.  
- Provide an upfront evaluation and review plan that includes assessment and review of impact of MHSC on resources and workflow at regular intervals. |
| RMHT                                                                               | - Provide a call for action that delineates roles in promoting and educating health personnel and members about the screening process.  
- Could be considered in role of champion.                                                                                                                                                                                              |
| Frontline staff including MOs, practice managers, clinicians on intake or likely to deliver screening | - Overarching policy on screening that is linked to other policies such as operational screening and CIMHS.                                                                                                                                                                      |
A brief survey of potential impact on region including intake system, resource needs, and staff climate. Use to inform overall implementation plan.

Provide a standardised education campaign to both engage and up skill the workforce about screening tools and processes, their benefits and limitations, the potential for further assessment if someone screens positive, and the referral process.

Provide a document that describes screening in a clear and engaging way, including its aims, benefits for members, how screening information will be used, and how screening will impact on service system and staff roles.

Use dedicated champions to provide education and raise MHSC at staff meetings and other forums.

<table>
<thead>
<tr>
<th>Commanders</th>
<th>Members</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education about screening with a focus on the benefits of early interventions when a mental health problem is detected on team morale and functioning. Provide information on expectations on members, confidentiality, and the flexible and accessible nature of the MHSC. Ensure that any education or information on screening is part of an overall strategy to reduce stigma.</td>
<td>Provide a standardised education campaign about benefits of screening, the screening process including timing, confidentiality, and the referral process. Develop a pamphlet that can be provided to those who have screened positive about what it means (and doesn’t mean), referral options, and encouragement for ongoing monitoring through health practitioner or screening website.</td>
</tr>
</tbody>
</table>
Costs and resource demands

The resource burden implications for the set up and ongoing implementation of all three frameworks will be briefly outlined. However, it is difficult to estimate the exact burden that the face-to-face triennial screen and the annual online screen proposed in Frameworks 1 and 3 will have on the different parts of the health system. While we know about the current number of screening events conducted as part of processes such as CIMHS or RtAPS, it remains to be seen how issues such as the potential decrease in operational tempo (primarily for Army and Air Force) or members’ preference for undertaking their post-screen interview with an MO or other health professional (e.g. psychologist) will impact on resource use. For this reason, the implementation guide above paid particular attention to the management of perceptions related to staff capacity and resource demand, as well as recommendations for monitoring resource demand. It is recommended that the MHSC be rolled out in a stepped approach in order to engage stakeholders and continually monitor and evaluation potential resource burdens (a phased approach to rolling out the frameworks is provided in detail below).

Our approach to costing the MHSC framework is to utilise existing systems and processes where possible in setting up and facilitating the introduction of any of the frameworks presented above. However, the introduction of any new framework will, of course, necessitate some additional costs.

One-off set up costs will include:

- Establishment of the Wellness Portal platform (it is understood through consultation with ADF that similar platforms have been built in the past and that the concept is relatively simple and achievable).
- Design and content for the Wellness Portal, including:
  - page design
  - development (or identification) of psychoeducation materials, appropriate web links, etc.
  - design of questionnaire layouts
  - programming for data entry, scoring, algorithm calculations, feedback statements to users, etc.
• Establishing and verifying the link between the Wellness Portal and the Defence e-Health System (it is understood that links between systems such as these already exist, so the process (from a technology perspective) should be straightforward and costs limited).

• Modifications to the Defence e-Health System to monitor compliance and send reminders, to incorporate the screening battery data into the medical records, to send alerts for referrals when required, etc. (it is understood that capabilities such as these already exist within the Defence e-Health System, so time and costs should be limited).

• Time to update existing policies and procedures to align with the chosen framework and develop an overarching screening policy.

• Time allocation for staff to participate in setting up and engaging with implementation of the chosen framework: for example, high level implementation steering group at JHC level, consultation with Regional Health Directors and/or survey to assess local barriers and facilitators, identification of “champions” of the enhanced MHSC to oversee the operations and implementation of the chosen framework at regional level.

• Development of dissemination materials: for example, pamphlets and an education campaign for members and commanders, overview of the screening process, and training for frontline health practitioners.

Running costs will include:

• The appointment of a screening administration officer, probably at a mid-level administrative classification. This would be a new position and have new costs associated with it. There will be some additional administrative tasks for intake officers (or appropriate equivalent) in arranging post-screen interviews when required (i.e., when they have not been done as part of an existing screening event and therefore are required by the triennial face-to-face screening event or when the member scores above threshold), as well as for clinicians conducting these post-screening interviews.

• Data entry support for paper-based versions of screening events. Note that this will only be required in the rare circumstances in which no IT platform (e.g., computer, smartphone) is available for data entry. Processes already exist for the entry and storage of paper-based questionnaires, and the online structure of the proposed
model will result in a substantial drop in the number of paper versions being completed. Thus, it is anticipated that the impact of paper-based screens will be minimal and, as such, this work could be embedded into existing resources and processes.

- Ongoing IT support - It is understood that such support already exists, so additional costs should be fairly minimal.
- Member time to complete the screen (approximately 10-15 minutes per annum (significantly less if shortened versions of measures are adopted), with an additional 15-30 minutes for post-screen interviews if required).
- Delivering education and training for members, Commanders and frontline workers. This should be incorporated into existing education or training as far as possible in order to minimise use of additional resources.

While the costs mentioned above are additional to current costs, it also should be recognised that the automation and standardisation of processes that currently exist should substantially reduce the current load on personnel involved in current screening practices.

A high degree of coordination is required to underpin the framework so that the occurrence of an independent screening event replaces the need for an annual online or triennial face-to-face screening event. This will also act to minimise both member and resource burden. Information about the potential resource burden resulting from implementing a new screening framework is discussed in detail below.

**Resource burden**

It is difficult to accurately predict the resource burden of the proposed MHSC framework, since limited information (including figures that fluctuate significantly from year to year) is available to inform these predictions. In addition, the flexibility of the proposed framework, while one of its strengths, makes prediction of definitive numbers for each screening event unreliable. It is, however, important to firstly acknowledge that there is an administrative resource burden associated with running the frameworks, such that there will need to be involvement from JHC staff to monitor and action any liability that goes beyond acceptable times (to be determined by ADF). There may also need to be involvement from COs or managers to enforce compliance with the chosen framework.
Both of these burdens are difficult to estimate without insight into the current time taken to complete these types of processes for existing screening events.

Secondly, aside from the time taken to complete the standardised screening instrument battery and potential face-to-face post-screen interview (detailed below) the member will also have to obtain appropriate approvals from COs to attend appointments, travel to appointments and wait for appointments to commence (NB: when the screen is included in an existing medical appointment the additional burden of approval, travel and wait-time would not be relevant). With little information to predict what this burden may be (in terms of member time) it is not possible to accurately estimate the additional administrative burden on the members themselves. Given there are a number of screening events already in place within ADF whereby the member would have to undertake these administrative activities, it is recommended that an estimate of this time is taken from this data.

Finally, the requirements for report writing after screening events are conducted needs to be considered. It is understood that the requirements differ depending on the health professional and on the screening event. It is recommended that ADF investigate the minimum reporting requirements for screening events and standardise this across all events. Until such time as this investigation is done it is not possible to predict the burden on health professionals in terms of time to write reports – however it is a very real cost and should be borne in mind.

The following section provides a rough guide of estimated numbers and associated resource burden

The triennial face-to-face screening event

All ADF members will be required to undergo a face-to-face screening event at least every three years as part of the triennial screening event requirement (note that this event incorporates administration of the standardised screening instrument battery and the face-to-face post-screen interview). As soon as this occurs the “clock will be reset” and the next mandatory requirement for a face-to-face screening event will be three years hence. It is recommended that this event be initiated in a rolling sequence with a third of the workforce per year being required to undergo this event. Thus, approximately
18,500 members (assuming a total population of around 56,000 - current as of 01 March 2014) will be required each year to complete a triennial face-to-face screening event.

It is possible that the actual number of face-to-face post-screen interviews conducted could be higher due to the requirements of post-screen interviews during RtAPS, POPS, CIMHS etc, and the fact that the member may go through more than one of these events within a three year period. However, participation in any of these events will fulfil the triennial face-to-face requirement and thus opt the member out of the specific triennial face-to-face mental health screening event. In short, the requirement is for one face-to-face post-screen interview every third year, regardless of what event this occurs in.

Some approximate numbers to guide estimates of the resource burden for the triennial face-to-face screening event are as follows, although it should be borne in mind that these do not necessarily represent unique individuals.

a) RtAPS / POPS: Approximately 7,200 (figure represents number of personnel returning from deployment between July 2011 and June 2012) members per annum in recent years have gone through these screening events; future numbers will, of course, depend on operational tempo. A post-screen interview is already conducted for both these screening events.

b) CIMHS / Special Mental Health Screens: As per the above screens, both of these already include a post-screen interview. The numbers, however, are smaller than for RtAPS/POPS – approximately 300 personnel per year for CIMHS (based on the average number of CIMHS screens conducted between March 2012 and December 2013); and around 300 for the Navy MHWQ special screen (based on an average of figures provided for the period June 2011 to March 2014). A point to note in this category is the addition of the C-Req event. As described in Framework 1 above, the C-Req allows commanders to request screening for members they identify as being at high risk due to their role or other circumstances. The addition of this screening event, when taken up, will result in an increased burden for members and health professionals, however without a more detailed assessment of who may choose to take up this event and how frequently it is not possible to provide an estimation of the burden. It is recommended that this event be monitored for usage (once implemented) and data collected to record frequency and duration.
c) Separation Health Examination: It is understood that approximately 5,000 ADF personnel undergo the SHE each year. This event includes both the standardised screening instrument battery and the post-screen interview.

d) Periodic Health Examination: Approximately 13,000 of these are conducted annually (based on data provided for the previous 12 months). In accordance with the Health Manual Volume 3, Chapter 2, Annex B both the K10 and the AUDIT are pre-existing components of the PHE. The addition of the PCL to this battery (in order to ensure consistency with the broader standardised screening instrument battery) would result in a very small increase in time for the member and health professional. The mandatory nature of the PHE provides an opportunity to ‘tick off’ the triennial face-to-face post-screen interview requirement for members.

In collating the numbers for items a) through d) above (acknowledging that there may be some overlap at times) there appears to be the following pre-existing screening events that would satisfy the three-yearly (triennial) requirement for a face-to-face post-screen interview:

<table>
<thead>
<tr>
<th>Pre-existing screening event</th>
<th>Average number of members completing per year</th>
</tr>
</thead>
<tbody>
<tr>
<td>RtAPS / POPS</td>
<td>7,200</td>
</tr>
<tr>
<td>CIMHS / Special screens</td>
<td>600</td>
</tr>
<tr>
<td>SHE</td>
<td>5,000</td>
</tr>
<tr>
<td>PHE</td>
<td>13,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>25,800</strong></td>
</tr>
</tbody>
</table>

If the requirement for the triennial face-to-face assessment is spread out upon implementation such that a third of the ADF population is ‘due’ in year 1, a further third in year 2, and the final third in year 3 (in order to spread out the burden of time for post-screening interview), then this equates to a need for 18,500 face-to-face post-screen interviews per year. Currently, according to the numbers provided this is more than covered within existing screening events, with over 25,000 members per year completing a screening event which incorporates the face-to-face post-screen interview. In saying this, it is important to acknowledge that the numbers presented above do represent an average and may include duplicates and / or fluctuate from year to year. Therefore, it is still important to consider the cost of any screening events on top of these
– particularly those that require the face-to-face component (i.e. the triennial screening event).

An opportunity exists for those who do not fall into the above categories but who are ‘due’ for their triennial face-to-face screening event to undertake this during a routine medical officer visit. It is understood from data provided by JHC that over 50,000 unique individuals – representing almost the whole ADF – have had a consultation in the past 12 months with an MO. Thus, this provides another forum in which the triennial face-to-face screening event can be conducted (only required when it has not been completed in another screening event at the time point due). If the MO does complete the triennial face-to-face mental health screen (i.e. the standardised screening instrument battery and the post-screen interview) then it is anticipated that this would add time to the medical appointment. The MO would need to determine if that time could be reasonably accommodated on the spot or whether another appointment would be required to undertake this process (as is done in the general community through the Better Access initiative). The degree to which members will choose to utilise the MOs for this purpose has the potential to increase the burden of work for the MOs, however it is not possible to predict the impact of this burden without knowing member preferences for the screening process and without a more comprehensive understanding of the current load / capacity of work the MOs have.

The exact numbers of additional resources (and time) for the implementation of the triennial face-to-face screening event are difficult to estimate at this time. However given that it appears from the numbers provided by ADF that a significant proportion of members are likely to be picked up by existing screening events, the additional resource burden may be more limited than expected. That being said, conducting the three-yearly standardised screening instrument battery and post-screen interview during the PHE would require a small amount of extra time per person (due to the addition of the PCL questionnaire – estimated to take around 5 minutes). Given that mental health questionnaires are already embedded within the PHE it is assumed that there is a discussion of these variables within this examination already – although this is unclear how much time this usually takes. It is recommended that this discussion be formalised to the post-screen interview for consistency with the framework which has the potential that this could add another 10 to 15 minutes of time. Therefore, in total for this event
there may be an extra 15 to 20 minutes of time required per member and health professional for each PHE.

Extra time would also be required from both members and health professionals (such as psychologists, MOs) should members who are not picked up by existing screening events choose instead to do their face-to-face screening event with a particular health professional. Finally, the new screening event – the C-Req – would require new resources/time when initiated. It is impossible to estimate the extra burden to the system for the different health professionals and the team that would manage the C-Req options since they are contingent upon member preferences (which at this point are unknown) and Command requesting a screening event (which again, to what extent this will occur is unknown). It is recommended that as part of the consideration of implementing the triennial face-to-face screening event that ADF survey or consult with a sample of members and Command in order to provide a foundation for such estimates.

The annual online mental health screen

Resources required to conduct the annual online mental health screen (the standardised screening instrument battery) should be minimal, since, by design, this screening event is fully automated and can be done by the member online from any location. An annual online screen in the absence of a face-to-face post-screen interview could potentially be required in up to two thirds of the ADF per annum (i.e. the group of members who ADF knows each year will not be undertaking their PHE). In reality, however, it is likely that a proportion of these two thirds will have met the requirement for one of the pre-existing screening events (such as RtAPS) and thus completed the standardised battery. For members who have not met the requirement to participate in one of the pre-existing screening events (approximately half of the ADF, or 28,000), the reminder from the Defence e-Health System will prompt the member to complete the online screen. This will take approximately ten minutes of the member’s time which results in a time burden for members of around 4,650 hours per year (10 minutes per member x half of the ADF or 28,000 members).

As noted at the beginning of this resource burden section, despite the automated nature of this screening event there may be some administrative costs with maintaining the system (reports, quality assurance checks, troubleshooting, administrative ‘help’ type support). These costs would be dependent on the extent to which the ADF would like to
system to do these activities (i.e. what reports would be needed and how frequently) and so are difficult to estimate at this point in time.

Face-to-face post-screen interviews following annual online screens

For members completing the annual online mental health screen scoring above a predetermined cut-off will require them to attend the face-to-face post-screen interview.

The first question is how many members will this affect? Around half of the ADF will complete both the standard screening instrument battery plus the post-screen interview per year through participating in a screening event that involves a face-to-face component. This is based on the assumption that around a third will do so in the PHE, and a further proportion through the triennial event, RtAPS, POPS, CIMHS etc per year. Therefore, the other half of the ADF will still need to complete the annual online screen – approximately 28,000 members. It is worth noting that these numbers are gross estimates and it would be worthwhile fine-tuning them through modelling based on pre-existing ADF data (specifically, the forecast for the numbers to go through the PHE each year for the coming years).

The second question, then, is how many of these 28,000 members will score above the cut-off and require a face-to-face post-screen interview? This depends in part on the cut-off used. The higher the cut-off, the lower the numbers and the lower the risk of false positives, but the higher the risk of false negatives – missing someone who actually needs help. Setting the cut-off too low generates the opposite problem – too many false positives will be identified: people scoring above the cut-off but who do not need help. The challenge is to find an appropriate mid-point, and we strongly recommend that data collected as part of the screening process be closely monitored to determine appropriate cut-offs to optimise sensitivity and specificity.

ADF POPS data are available from 2010/2011 (see Technical Brief 04/2012) using cut-offs for the K10 at 20, the PCL at 30, and the AUDIT at 8. Between 5 and 9 percent scored above the cut-off for the K10 (across the three services), between 5 and 10 percent on the PCL, and between 7 and 20 percent on the AUDIT. This suggests that using a cut-off score of 8 on the AUDIT is probably identifying a substantial proportion of people who drink heavily but who do not have associated mental health problems. For this reason, we have recommended that a higher cut-off be established for the AUDIT.
This will substantially reduce the numbers meeting threshold on the AUDIT. It is reasonable to assume a high level of overlap between K10 and PCL, such that a reasonable figure for "caseness" (that is, those who would score above threshold and therefore require a face-to-face post-screen interview) is probably between 5 and 10 percent. This estimate is consistent with the figures presented in the CMVH Think Tank Report, which states "a possible referral rate of 10.8% is expected for all ADF personnel who are administered the Annual Mental Health Screen" (p.25). It should be noted that, since the POPS figures were obtained from post-deployment samples, we would expect this to represent an upper limit. It is also worth noting that the rates in the recent Military Health Outcomes Program (MilHOP) studies were higher, but since these were based on anonymous self-report data they are not directly comparable. In our opinion, the POPS data reflect a more accurate prediction.

Taking, then, an approximate figure of 28,000 personnel completing the annual online screen in the absence of any other screening event, with between 5 and 10 percent scoring above the cut-off, between 1,400 and 2,800 personnel per year across Australia, or between 27 and 54 per week, will require follow-up with a face-to-face post-screen interview. Although since this is a 'referred' visit and some problems have already been endorsed through the instrument battery, we would allocate an average of 30 minutes per case to this process (instead of the 15 minutes suggested above). This load will presumably be split between Medical Officers and mental health providers according to availability.

In order to understand what these extra post-screen interviews represent in terms of burden it is useful to review the numbers of mental health professionals with ADF who could complete this process. The following numbers have been provided to ACPMH by ADF over the course of the project (and therefore are current as of April/May 2014):

- Garrison Health (note that numbers include reservists and not all positions are filled)
  - 169 psychology officers
  - 118 psychology examiners
- 1PSYCH (filled positions)
  - 21 psychologists
  - 11 psychology examiners
  - 21 psychologists – reserves
  - 10 psychology examiners - reserves
- Army
  - 88 psychology officers
  - 48 psychology examiners
Navy Psychology Service Delivery
  - 9.4 psychologists
  - 2 psychology assistants

When combined (acknowledging that not all positions are filled, that some are reservists, that the role of these positions incorporates more than client consultations, and that it would not be appropriate for all of these roles to complete the post-screen interview with members) there are a total of over 497 psychology positions. It would be useful to know how many of these positions could fulfil this function (i.e. undertake post-screen interviews) in order to have a more accurate understanding of the spread of the burden.

Medical officers would also assist in conducting post-screen interviews for those who score above threshold on their annual screen. Unfortunately the numbers of medical officers currently employed within the ADF was not available at the time of writing this report. Therefore their contribution to managing the resource burden associated with annual screen post screen interviews could not be calculated – but is critical to take into account.

In very gross terms if an additional 1,400 and 2,800 post-screen interviews are required per year, this represents between 3 and 5 extra consultations per year per psychology position (and far less when MO positions are included).

Recruit training screening

The additional resource requirements for Framework 3 are not substantial. There would be the cost of additional face-to-face interviews for recruit screening (the online component would be cost neutral once the system had been established for Framework 1). For each new recruit coming into the ADF the addition of the recruit training screening event will equate to 10 minutes of member time to complete the standardised screening instrument battery, 15 minutes of member time to attend a post-screen interview, and 15 minutes of health professional time to conduct the interview. In order to translate this burden to a meaningful number it is recommended that ADF forecast future numbers for recruitment.

Predicting the number of recruits who will score above threshold and require an interview is difficult, although it may be assumed that at this early point of their career the numbers would be towards the lower end of the range. There would also be additional establishment costs to design and program the enhanced reporting systems.
Summary

In summary, the additional resource burden of the proposed MHSC frameworks is challenging to accurately predict. It appears, however, that existing screening events would cover much of the requirements for the three-yearly face-to-face screening event (once all events were made consistent through use of the standardised screening instrument battery and post-screen interview). For members who would still be liable to complete the face-to-face screening event (i.e. not picked up by existing events), it appears that routine medical appointments provide another low-resource option for fulfilling this requirement. The additional face-to-face assessment for those who score above the cut-off on the annual online screen will result in a resource burden, though given the numbers of health professionals across ADF it is anticipated that this burden could be managed by existing staff (though as noted above, this needs more analysis to confirm). In reality the resource burden can only truly be accurately estimated through a stepped roll out of the frameworks in order to trial the new system, monitor the additional resource load and, if necessary, make adjustments accordingly. This highlights the importance of building in an effective evaluation process from the outset.

Despite the potential for an increase in cost, the implementation of a universal screening program is justifiable for a number of reasons: (a) ADF have a duty of care towards all members (regardless of deployment status) in ensuring positive mental health and support; (b) screening provides an opportunity for psychoeducation which may result in members being more proactive about their mental health, may help with decreasing issues of stigma that continue to surround mental health and will ensure a consistent message to members about the importance of mental health care; and (c) the frameworks provide another opportunity for ADF to interact with their members and check in on their mental health status, potentially leading to the early identification of mental health problems.
A phased approach to rollout

Full implementation of the proposed model will take some time and is dependent on a range of other factors, the most salient of which is the nation-wide rollout of the Defence e-Health System. It is worth considering how a stepped approach to implementation might be achieved, making substantial improvements to existing models before the whole MHSC Framework is operational. This section proposes several self-contained stages that could be considered as phases of a gradual rollout. The order in which these stages are approached is open for discussion. The important outcome of a phased approach is that progress is made towards enhancing the quality of mental health screening in the ADF even if the implementation of the full Framework is not immediately practical. Furthermore each stage can be evaluated before the implementation of another component of the framework is commenced. As such a staged approach ensures that problems in each component can be resolved prior to putting them together and activating the full model.

Stage 1: Standardise the screens

There are clear advantages to adopting a standardised approach to screening across time and settings. This point was made strongly by the US Institute of Medicine, which identified unnecessary variability in the content of screens and recommended that standardised and validated instruments should be used consistently across different settings. Such an approach has the potential to improve consistency, reliability, and validity, as well as enhancing opportunities for comparisons across time and settings.

First, the minimum data set and agreed cut-offs need to be established. Further analyses should be conducted to identify whether the shortened versions of the K10, PCL and AUDIT could be utilised as part of the standardised screening instrument battery. Second, key stakeholders need to be engaged in the process of changing screening measures where necessary to comply with this standardised approach (it is understood that these scales are being used in most settings, so this should not be too great a challenge). Finally, a standardised package should be developed for distribution.
Stage 2: Commence development of the Wellness Portal

All three frameworks propose the development of a “Wellness Portal”. Although the ultimate aim is to make this the entry point for the three automated screening options, work could usefully commence on designing the portal and adding the self-care information. Initially, this could function simply as a source of information on psychological health and wellbeing for members and their families, before building it into a screening and self-help portal along the lines of the US Military Pathways website (described in detail in Appendix 3). It would be appropriate and useful to conduct a small evaluation of this website before moving onto any further stages. This evaluation may in fact conclude that the website is effectively providing mental health psychoeducation and facilitating pathways to care through self-referrals, that a significant proportion of members are accessing it regularly in a positive way, or that there is still estimated to be a significant unmet need in terms of reaching members with mental health screening options and support. Regardless, the evaluation of the website will serve to inform ADF and potentially refine the implementation strategy in terms of next steps.

Stage 3: Automate the screens

A continued reliance on paper versions of the mental health screening battery creates substantial human resource demands in the collection, collation, and entering of data. As a first step to addressing this issue, the core scales could be programmed for online completion. When this component is ready, it can be added to the portal described in Stage 2 to allow members to complete the scale and receive minimal feedback. This portal is central to the frameworks and, when complete, would allow the “Voluntary Screen” option to become fully functional. By the time this stage is complete, it would meet all the requirements for the Framework 2 option.

Stage 4: Standardise the post-screen interview for existing screening events

Face-to-face interviews currently occur in many of the screening events already underway within the ADF, such as POPS, RtAPS, and CIMHS. At present, however, there is no standard way of approaching this process and wide variation exists across settings and individual providers. A brief manual to guide the conduct of the post-screen interview, with sample questions for each component, suggestions on how to interpret
responses, and an outline of reporting requirements would be the first step. This would
be followed by trials with selected providers in selected settings, modifying the interview
as required in response to feedback, before establishing the protocol as the approved
process for all post-screen interviews regardless of the setting in which they occur.

Stage 5: Preliminary training in enhanced screening processes

Once the Wellness Portal and automated screening battery have become operational, a
preliminary training program can be offered in how the revised screening program works,
how to administer and interpret the online screens, and how to conduct and interpret the
post-screen interview.

Stage 6: Conduct further data analyses

The proposed screening instrument battery (at this point) includes full versions of the
PCL, K10 and AUDIT – a total of 37 questions. As noted above, however, well-validated
short versions of all these scales are available (PCL-4, K6, and AUDIT-C – a total of 13
questions). These short versions have not been proposed at this stage, since the validity
of the combined shortened battery has not been tested. Given their validity, however, it
is reasonable to assume that they would perform well – possibly as well as the full set.

Further data analyses on existing and new datasets could be conducted to inform
modifications to the model, exploring the predictive validity of the PCL-4 / K6 / AUDIT-C
combination and establishing the optimum thresholds.

It is recognised that the diagnostic criteria for PTSD were modified in the newly released
Diagnostic and Statistical Manual 5th Edition DSM-5: ¹. A new version of the PCL has
been developed to reflect this change PCL-5: œ. However, before the standardised
screening instrument battery incorporates the PCL-5 (or a shortened version of the PCL-
5), the predictive validity and appropriate cut-offs need to be first established.

Stage 7: Integration with the Defence e-Health System

Once the Defence e-Health System is operational and the system has been
programmed to meet the requirements for the MHSC Framework, the system will need
to be trialled across a range of selected settings. This is likely to be a lengthy process as
the various components are integrated and the process is activated. Problems can be
identified and resolved as they arise, ensuring a high likelihood of success when the Framework is eventually adopted across the ADF.

Stage 8: Final training and implementation

By this stage, those personnel who are involved in the screening process should be familiar with the Wellness Portal, with how to conduct the online screen, and with how to administer the post-screen interview. The final training will reinforce these processes and demonstrate how to use the information provided by the Defence e-Health System. This stage will also include the broader communication strategy to all members, along with the other implementation procedures outlined in the “Operation and Implementation” section above.
Chapter 6 – Future research directions

The proposed frameworks open a number of important avenues for future research within the ADF. These include, but are not limited to:

- How effectively does a screening battery comprising shortened versions of current measures detect mental disorder in the ADF?
- Are there other measures not currently used by the ADF which are more efficient in identifying mental disorder?
- What implications do the diagnostic changes in DSM-5 and ICD-10 have for mental health screening in the ADF, particularly the screening measures and cut-offs used?
- What proportion of mental health screens are conducted by MOs, and how does this affect the workload of the MO workforce?
- What proportion of ADF members who are referred for treatment following a positive screen actually take up treatment?
Chapter 7 – Summary and conclusions

The Mental Health Screening Continuum Framework described in this document provides the structure and processes required to conduct consistent, regular and high quality psychological screening across the ADF. The flexibility takes account of the varying needs of the organisation across Services, settings, and time. It allows screening to be conducted at times of high need (e.g., event driven, at the request of key personnel, or at the member’s own request), as well as ensuring that those who are not screened as part of those processes do not miss out. While no screening system is perfect, the proposed model optimises the chances of early identification of psychological problems and provides the stepping stone for pathways to appropriate early intervention and care.

Implementing a program of this complexity in an organisation as large and diverse as ADF will inevitably present teething problems and unforeseen obstacles. All of these, however, can be solved as they arise provided the organisation is committed to the process and there is a shared vision regarding the potential for improved outcomes in terms of operational effectiveness and psychological health and wellbeing.
Chapter 7 – References


64. Sadler N, Benassi H. Mental health screening in the ADF: Are we getting it right? AMMA Conference; 2013; Adelaide.


## Appendix 1

### List of consultation participants

<table>
<thead>
<tr>
<th>International consultations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr Amy Adler (Research Psychologist, Walter Reed Army Institute of Research, US)</td>
</tr>
<tr>
<td>Prof Neil Greenberg (Defence Professor of Mental Health, King’s College, UK)</td>
</tr>
<tr>
<td>Dr Charles Hoge (Psychiatrist, Walter Reed Army Institute of Research, US)</td>
</tr>
<tr>
<td>MAJ Alana MacDonald (Joint Forces Operational Psychologist, New Zealand Defence Force)</td>
</tr>
<tr>
<td>Dr Ian Palmer (Consultant Psychiatrist, Veterans Aid, UK)</td>
</tr>
<tr>
<td>Surgeon Captain John Sharpley (Royal Navy, UK)</td>
</tr>
<tr>
<td>Prof Col HGJM Eric Vermetten (Head of Research Military Mental Health, Ministry of Defense, Service Command, Staff Military Mental Health, Netherlands)</td>
</tr>
<tr>
<td>Dr Mark Zamorski (Head, Deployment Health Section, Department of National Defence, Canada)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Australian Defence Consultations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr Kim Anderson (Regional Medical Advisor, NNSW)</td>
</tr>
<tr>
<td>LTCOL Kurt Black-Sinclair (Commanding Officer, 1st Military Police Battalion)</td>
</tr>
<tr>
<td>CAPT Jonathan Burt (SO3 Directorate of Occupational Psychology and Health Analysis)</td>
</tr>
<tr>
<td>SGT Noel Butler (Examiner Psychology)</td>
</tr>
<tr>
<td>AIRCDRE Alan Clements (Commandant, ADFA)</td>
</tr>
<tr>
<td>LTCOL Andrew Cohn (CO 1st Psychology Unit)</td>
</tr>
<tr>
<td>COL Genevieve Constantine (Director Defence Force Dentistry and Director Specialist Clinical Advice)</td>
</tr>
<tr>
<td>Dr Dorothy Coote (Senior Medical Advisor, Clinical Policy, SHO)</td>
</tr>
<tr>
<td>CAPT Nicole Curtis (J07)</td>
</tr>
<tr>
<td>Ms Cathy Davis (Director National Operations, Defence Community Organisation)</td>
</tr>
<tr>
<td>GPCAPT Stephen Davis (Director Air Force Health)</td>
</tr>
<tr>
<td>Dr Darrell Duncan (Regional Health Director, NNSW)</td>
</tr>
<tr>
<td>LTCOL George Georgiadis (Senior Health Office, Special Operations Command)</td>
</tr>
<tr>
<td>WO2 Glen Henderson (Practice Manager, MHPS QLD)</td>
</tr>
<tr>
<td>Mr Tony Hewson (Director of Organisational Development and Culture - Air Force)</td>
</tr>
<tr>
<td>WO1 Iain Lewington (Examiner Psychology Corps Warrant Officer AAPSYCH Corps)</td>
</tr>
</tbody>
</table>
Mr Kim Malaphant (Director, CompleXia)
WGCDR Tony Monson (Service Security Authority - Air Force)
MAJ Sean O’Brien (Commanding Officer, DPU)
CAPT Bryan Parker (Provost Marshall ADF)
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John Rutherford (A/D IT in JHC)
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Ms Jen Wheeler (Director, Navy Psychology Policy)

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Professor David Dunt
Professor David Forbes
Professor Ian Hickie
Professor Sandy McFarlane

**Ex-service organisations**

Mr John Bale (Soldier On)
Appendix 2

PCL-4

Below is a list of problems and complaints that people sometimes have in response to stressful life experiences. Please read each question carefully and then indicate, by filling in the circle, the response that best describes how much you have been bothered by that problem in the past month.

<table>
<thead>
<tr>
<th></th>
<th>Repeated disturbing memories, thoughts, or images of the stressful experience</th>
<th>Not at all</th>
<th>A little bit</th>
<th>Moderately</th>
<th>Quite a bit</th>
<th>Extremely</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Having physical reactions (like heart pounding, trouble breathing, sweating) when something reminded you of the stressful experience</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Avoiding activities or situations because they reminded you of the stressful experience</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>Having difficulty concentrating</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

AUDIT-C

In answering the following questions, please remember that a standard drink contains 10g of pure alcohol. Each of these is a standard drink: 1 middy/pot of standard beer – 1 glass of wine – 1 glass of sherry – 1 nip of spirits.

Please read each question carefully and then indicate, by filling in the circle, the best response that describes your behaviour.

<table>
<thead>
<tr>
<th></th>
<th>How often do you have a drink containing alcohol?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Never</td>
</tr>
<tr>
<td>1.</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>How many standard drinks containing alcohol do you have on a typical day when you are drinking?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 or 2</td>
</tr>
<tr>
<td>1.</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>How often do you have six or more drinks on one occasion?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Never</td>
</tr>
<tr>
<td>1.</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td></td>
</tr>
</tbody>
</table>
**Lifetime trauma exposure**

Below is a set of extremely stressful or upsetting events that sometimes occur to people. Please indicate which of these events you have experienced in your life by ticking either yes or no.

<table>
<thead>
<tr>
<th>Event</th>
<th>No</th>
<th>Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Direct combat experience in a war</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>2. Life-threatening accident</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>3. Fire, flood or natural disaster</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>4. Witnessed someone being badly injured or killed</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>5. Rape, that is, someone had sexual intercourse with you when you did not want to, by threatening you or using some degree of force</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>6. Sexual molestation, that is someone touched or felt your genitals when you did not want them to</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>7. Seriously physically attacked or assaulted</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>8. Threatened with a weapon, held captive or kidnapped</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>9. Tortured or the victim of terrorism</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>10. Any other extremely stressful or upsetting event</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>11. Suffered a great shock because one of the events on the list happened to someone close to you</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>
Appendix 3

The website into which the ChIO screen is developed will be similar to the US Military Pathways website (http://www.militarymentalhealth.org). The program was created by a not-for-profit organisation (Screening for Mental Health Inc.) in partnership with the Department of Defense, after the National Defense Authorization Act of 2006 required the provision of a mental health self-assessment program. Military Pathways provides free and anonymous access to mental health information, self-screening, and referral information for military personnel (including reserves) and their families. The website aims to reduce stigma, increase mental health literacy, and connect those in need to appropriate services. It provides individuals the option of selecting their state for customised information (e.g., resources available in the local community), although this is available only for a minority of states.

Screening instruments available through Military Pathways assess generalised anxiety disorder, depression, bipolar disorder, PTSD, and alcohol use. The latter two are assessed using instruments familiar to US military personnel through deployment screening (PC-PTSD and AUDIT respectively). Anxiety, depression, and bipolar disorder on the other hand are assessed using instruments not included elsewhere in the US screening program. The Harvard Department of Psychiatry/National Depression Screening Day instrument HANDS; is a 10-item scale with good internal consistency and validity, a sensitivity of 0.96 and specificity of 0.60. Items are scored on a four point scale from 0 to 3, with a cut off of 9 indicating a need for further evaluation. The Carroll-Davidson Generalized Anxiety Disorder screen contains 12 yes/no items, with six or more "yes" responses indicative of disorder with a sensitivity of 0.64 and specificity of 0.90. Bipolar disorder is assessed using the Mood Disorder Questionnaire, a 15-item scale that, with a cut-off of seven positively scored items, identifies the disorder with a sensitivity of 0.73 and specificity of 0.90.

Screening instruments can be accessed by either directly selecting a mental disorder, or by the individual indicating how they are feeling through a drop-down menu of options such as “feeling sad or empty” and “drinking more than planned”. The introduction to screening provides a normalising explanation of what screening is and importantly, that screening is not diagnostic. Importantly, immediate feedback to screening is provided in response to positive answers to the question on suicide in the depression screen. Such
responses result in the appearance of a pop-up dialog box recommending that the individual call National Suicide Prevention Lifeline, “911”, or present to their nearest hospital emergency department.

After completing a screen, individuals are taken to a “Results & Recommendations” page for feedback on their responses. For all site visitors, this page provides links to self-management tools, and presents options for further evaluation. Related links such as articles and videos on the disorder of interest are listed on the right hand side of the page. Those scoring below threshold are informed that their results are not consistent with symptoms of the relevant disorder, but that if they are concerned they should see a mental health professional for a complete evaluation. Individuals scoring above threshold are informed that their results are consistent with symptoms of the disorder but that a full evaluation is required for diagnosis. A ‘video doctor’ pop-up appears with information about the disorder being assessed.

Military Pathways also provides access to information and referral details without taking a self-assessment. A range of PDF articles with information about the target disorders and their management (e.g., tips for cutting down drinking) are available for download, as well as articles about mental health more generally such as choosing a therapist, and helping children cope during a parent’s deployment. The site also contains a regular military mental health blog, with posts on topics such as accessing mental health care for military families, alcohol and PTSD, and traumatic brain injury.

As yet there is no published research on the effectiveness of the Military Pathways website in identifying mental disorder and improving treatment uptake among US personnel. However, the site itself asks individuals who complete a screen if they will seek further evaluation, with analysis of this data indicating that 70 percent of users reported they would be likely to do so (http://www.mentalhealthscreening.org/programs/military/faqs.aspx).

The opportunity for all members at any time to access anonymous screening, information and resources, is considered a useful adjunct to the formal screening events that comprise the majority of the MHSC. Such an approach may be more acceptable to some members who do not wish to disclose mental health information in compulsory and identifiable screens. While the Military Pathways website provides a good model for the MHSC, there are also a number of areas which could be improved, including:
The screening instruments incorporated in the Military Pathways website deviate from the identifiable screens completed by US military personnel at other points of the military lifecycle. In addition to new screens for depression and anxiety, the website includes a screen for bipolar disorder. In contrast, a consistent approach is recommended for the Australian context, using the standardised MHSC battery as the ChIO screen. In addition to this battery being familiar and acceptable to members, and the availability of population specific cut-offs, using the standardised battery has the benefit of allowing an analysis of the effect of anonymity on survey responses within the ADF.

Military Pathways provides links to PDF articles on military and general mental health. While helpful, the need to continually update the available articles means this approach is likely to be highly resource intensive. To minimise the resource burden and ensure that the information on the ChIO website remains current, it is suggested that rather than offering individual documents for download, the website links to other relevant sites (e.g., At Ease, mates4mates, Defence Community Organisation).

Although the Military Pathways site is promoted as being anonymous, individuals wishing to complete a mental health screen must first answer nine demographic questions addressing topics such as age, gender, location, rank, and number of deployments. Some individuals may be concerned that providing this level of detail would allow them to be identified and may act as a deterrent to completing the screen. Therefore, it is recommended that the ChIO site either not collect demographic information at all, or collect only minimal information such as age, gender, and Service.
Screen shots taken from the US Military Pathways website:  
https://www.militarymentalhealth.org/
Many service members and their families face difficulties during deployments, homecoming, and other major events during and after their time in uniform. To learn more about common challenges, coping strategies, and other useful information, please select a topic above.

Take an anonymous mental health self-assessment