



AUSTRALIAN  
DEFENCE FORCE

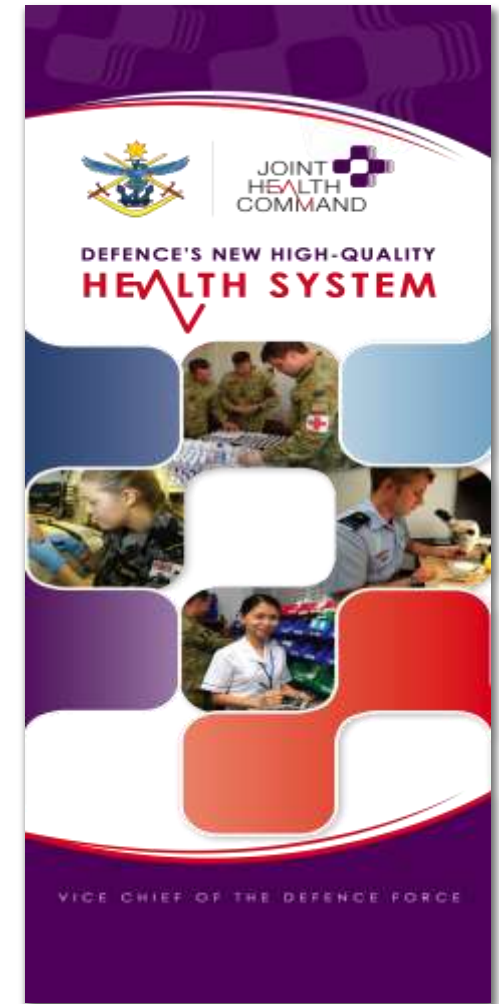
# The Defence Health System – Where to next?

Brigadier Craig Schramm, CSC  
Director General Health Capability ADF

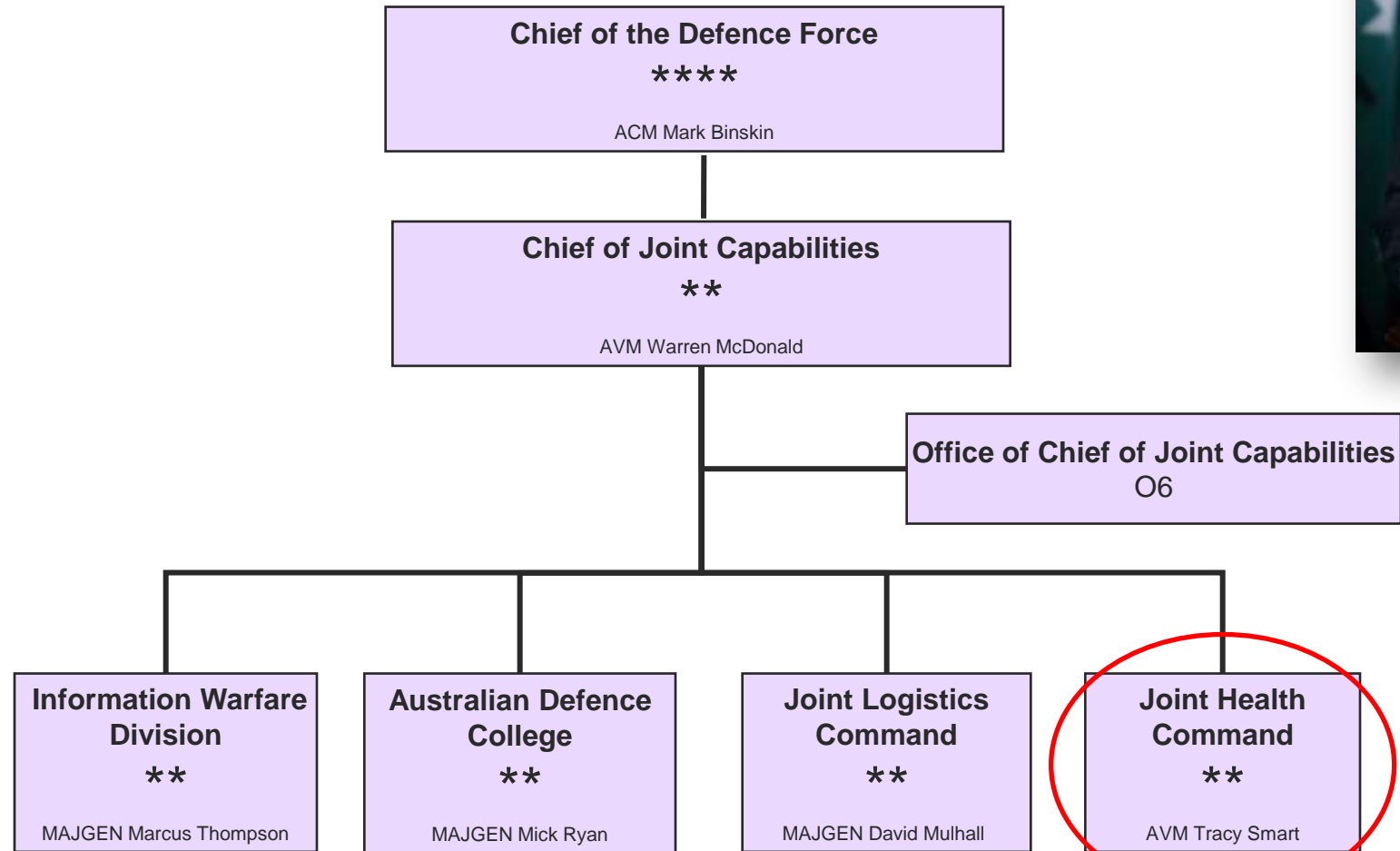


# Scope

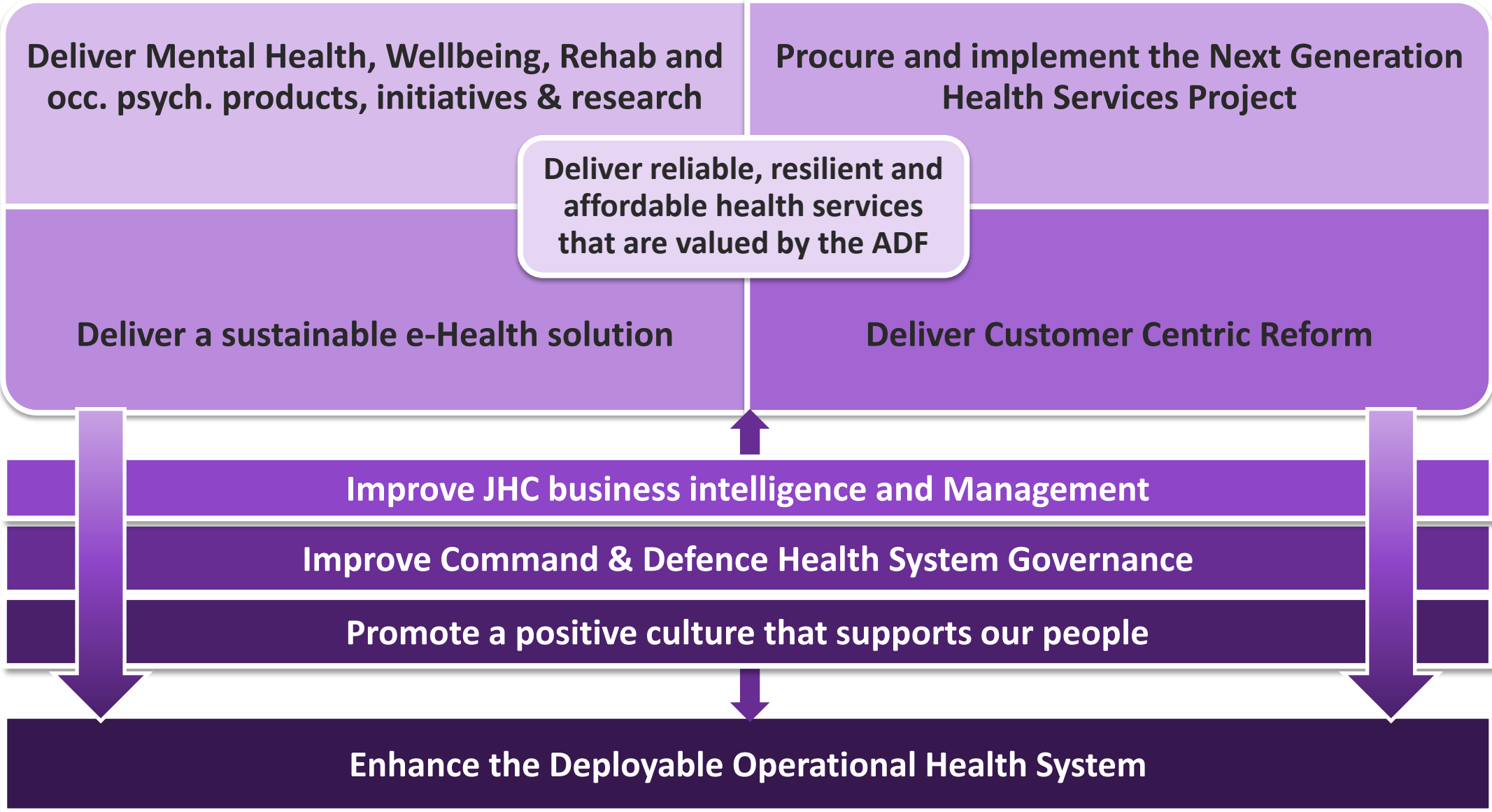
- Strategic overview of Joint Health Command roles
- Health Support to Operations
- Research in support of current & future capability
- Future technology – where are we going?



# Joint Capabilities Group



# JHC Priorities



# ADF puts people in harm's way...

- High risk activities
- Extreme environments
- From training to war
- Physical & mental stressors



# Mitigators

- Risk assessment & planning
- Force protection
- Workplace Health and Safety
- ADF health services
  - Maximise health fitness
  - Force health protection
  - Treatment services



Exercising Defence's Extreme Duty of Care on behalf of the Nation

# ADF Health Support

- A key **combat enabler** of ADF Capability
  - capabilities that bind military capabilities together to maximise Defence's operational effectiveness
- Care for our people



## ADF Capability



Defence of Australia and its National Interests

# Defence Health System

## Defence Health System Surgeon General ADF

Joint Capability Coordinator for Health, LCM Health Materiel:  
policy, governance, accreditation, direction & oversight

Deployed Operational HS  
*Services, JOC*

Garrison HS  
*Commander Joint Health*

Joint Deployable Role 2E

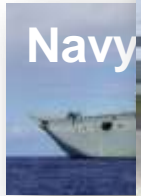
On-base Primary Care

Civilian HS



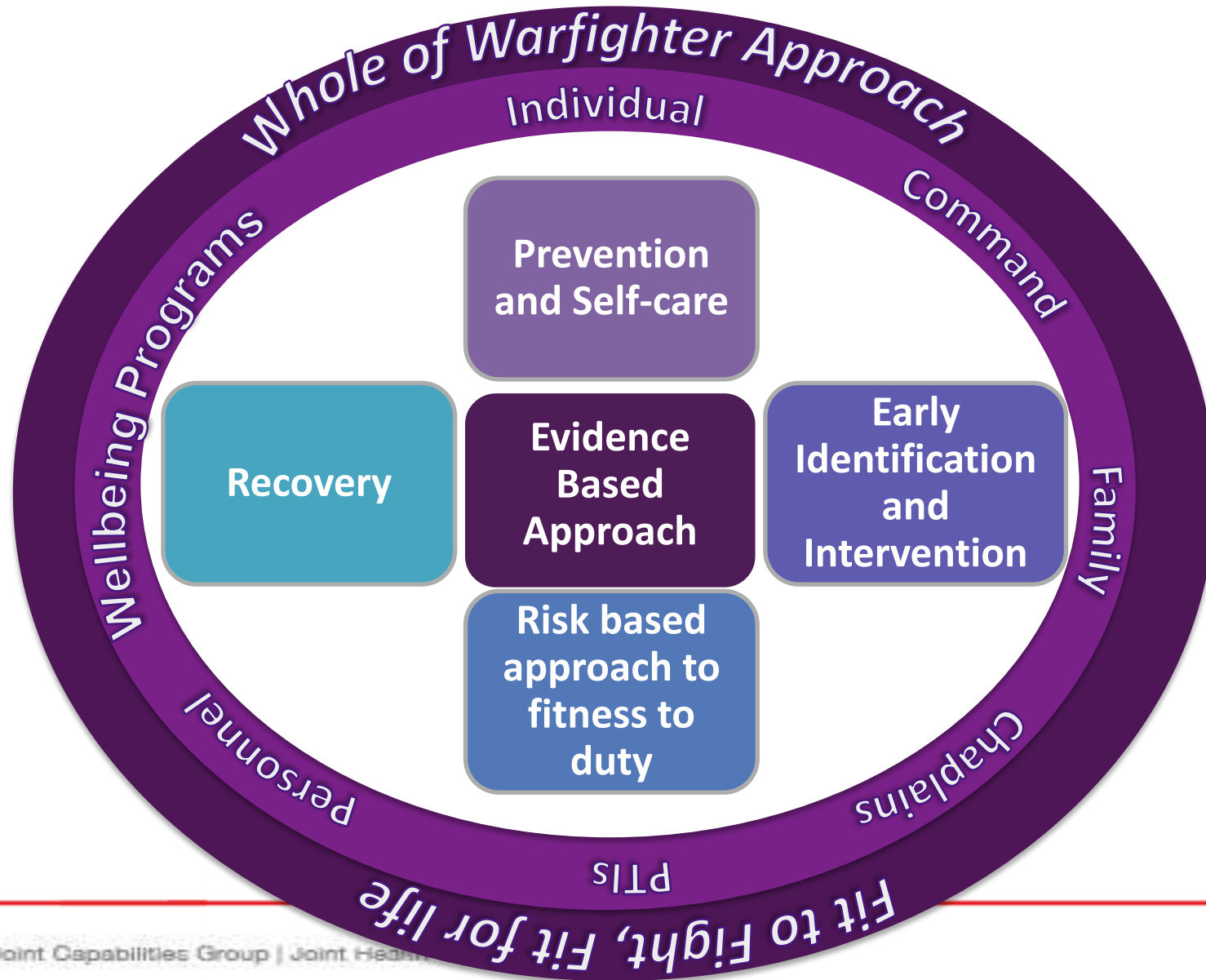
**Australian civilian health sector through ADF Health Services contract**

- Off-base - Specialists, allied health, hospitals
  - Pathology
  - Radiology & Imaging
  - Hotline





# Not just “free medical” ...



# JHC Roles

- Key military enabler
- Strategic health advice to CDF and Government
- Integral with command to assure the raise train and sustain of the force in being
- Support the Services operational health elements
- Technical control over ADF Health
- Materiel sustainment
- Use research to develop contemporary health policy, procedures and countermeasures

# ADF Health Support

- Enable operational tasks
  - Minimizing preventable casualties through Force health protection measures
  - Treatment of wounded, ill and injured
- Provide health care to civilians deployed with a force
- Provide health care to civilian populations to relieve human suffering
- Provide health care to detained persons in accordance with International Humanitarian Law

# Joint Operations

- Defence health support is deployed in:
  - Maritime
  - Land
  - Air
  - Amphibious



# Joint Operations

- Across a broad range of operational tasks
  - Warfighting
  - Peace enforcement
  - Security operations including evacuation operations
  - Humanitarian assistance
  - Disaster relief



# Regional Security

- Exercises with partners
  - e.g. Pacific Partnership, Pacific Angel
- Knowledge Exchange
- Capacity building
- Training
- Clinical services
- Interoperability

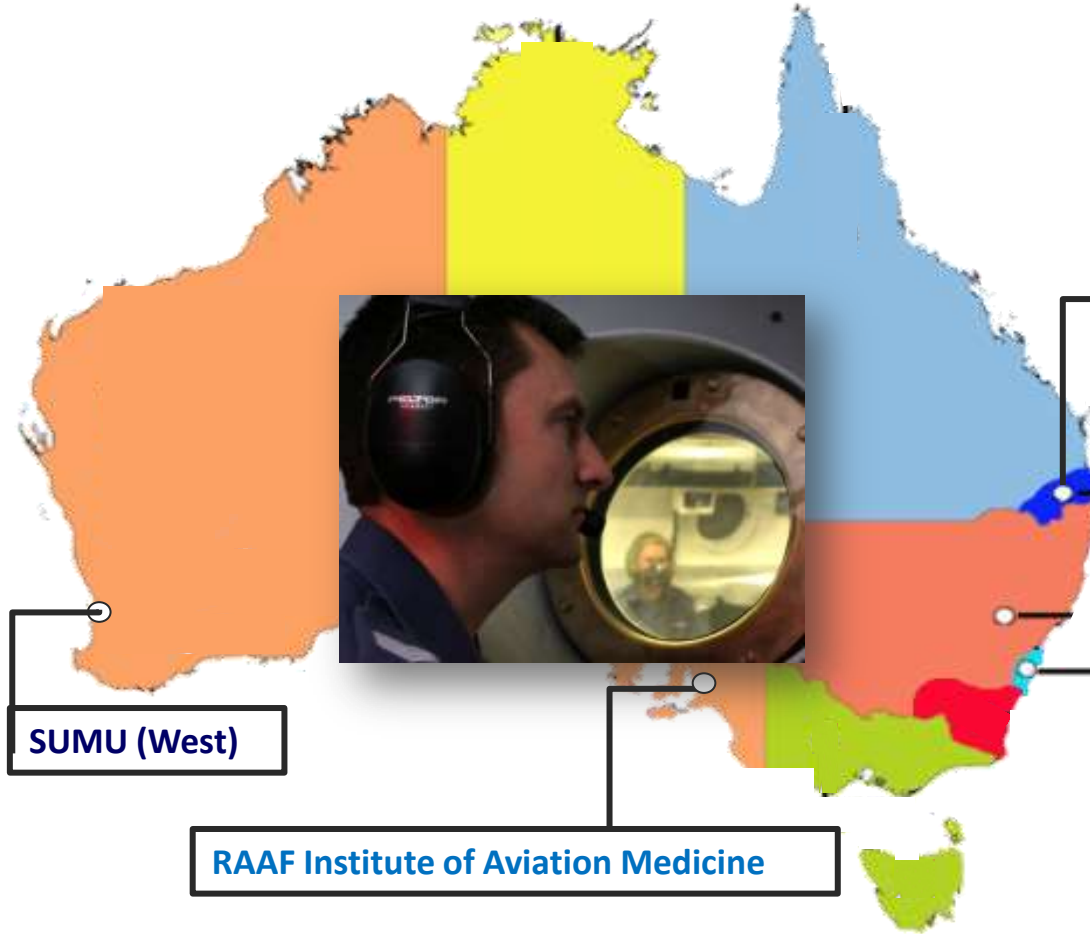


# Research required across the spectrum

- Mental Health
- Combat Casualty Care
- Infectious Diseases
- CBR medical countermeasures
- Injury Prevention & mitigation
- Health Informatics
- Occupational Medicine
- Aviation Medicine
- Underwater Medicine



# Specialist Health Support



**ADF Malaria and Infectious Disease Institute**



**Submarine Underwater Medicine Unit (E)  
ADF Centre for Mental Health**





# ADF Malaria & Infectious Disease Institute

*(formerly Known as AMI)*

- Roles:
  - clinical advice
  - diagnostic testing
  - research/clinical trials
  - Training
  - regional capacity building
  - WHO Collaborating Centre for Malaria.
- International partnerships with region, US



# JHC's Research Partners

- UQ – Professor Military Medicine
- DVA
- DSTG
- International organisations
  - CBR MOU
  - TTCP
  - NATO
  - others



# Medical Countermeasures

- Very broad scope and well beyond military applications
- Natural and man made contingencies
- Across spectrum
  - Prevention
  - Detection
  - Diagnostics
  - Treatment/management
- Need for organic Australian industry capacity



**Prevention:**  
Behavior/Lifestyle/  
Treatment intervention to  
prevent disease



**Detection:**  
Early detection of disease  
at the molecular level



**Diagnosis:**  
Accurate disease diagnosis  
enabling individualized  
treatment strategy



**Treatment:**  
Improved outcomes through  
targeted treatments and  
reduced side effects

# CBR MedCM Research

- Non-traditional Agent prophylaxis, and treatment
- BW toxins prophylaxis and treatment
- Rapid field diagnostics and biosurveillance
- Bioscavengers
- Broad spectrum BW antimicrobials
- Enhanced tissue engineering techniques
- Development of decision support tools
- Medical countermeasures
  - Plague, Q Fever, viral hemorrhagic fevers
- Novel therapeutics for treatment of traditional agents
- Domestic and regional capacity building in diagnostics



# Technology – Where are we going?

- Health Knowledge Management Systems
  - Much more than an electronic health record
- Wearable devices
- Artificial Intelligence
- Genetic/genomic screening
- Personalised medicine/nutrition
- Performance optimisation
- Unmanned Aerial Systems
- VR consultation/training
- Remote/robotic surgery

# Unmanned Aerial Systems

- Delivery of equipment/diagnostics/medication/blood/advice
- Evacuation



# VR Consultation/Training

- Telemedicine +
- Training in surgical and other invasive techniques



# Remote/Robotic Surgery

- Austere environments
- Remote localities





# Remote/Robotic Surgery



# Remote/Robotic Surgery

- Jerri Nielsen



# Remote/Robotic Surgery

- Leonid Rogozov



# Questions?

## Defence Health Services



*Trusted to Care*