

# Mental Health and the UK Armed Forces



**Professor Neil Greenberg**  
**Academic Centre for Defence Mental Health**  
**King's College London**

# Who am I

- Defence Professor of Mental Health
- Royal Navy Surgeon Captain
- Consultant Psychiatrist
- Varied military career – ships, submarines, Royal Marines





# Aims of the talk

- To examine the psychological health of the UK Armed Forces
- To outline how the UK Armed Forces aim to support the psychological health of their personnel
- Challenge some of the myths surrounding mental health problems in service personnel

**Troubled war veterans leave UK 'sitting on a suicide timebomb'**  
Published Date: 16 July 2009

**THE Sun**  
Forces  
THE LATEST FROM THE FRONTLINE  
**Tsunami of post-traumatic stress haunts our heroes**

guardian.co.uk  
**Revealed: the hidden army in UK prisons**  
More veterans in justice system than soldiers serving in Afghanistan - study  
Alan Travis, home affairs editor  
guardian.co.uk, Thursday 24 September 2009 20:52 BST

**NEWS JERSEY**  
**Holidays for Heroes in Jersey says PTSD cases rising**

theguardian  
**Former soldier wins MoD payout over post-traumatic stress disorder**  
Bomb disposal expert claimed failure to properly diagnose PTSD left him more vulnerable to future stressful events

**MailOnline**  
**British troops back from Afghanistan are 10 times more likely to suffer mental illness, say MOD**

**Liam Fox: We must defuse timebomb of veterans' mental health**

# Military Life is Different



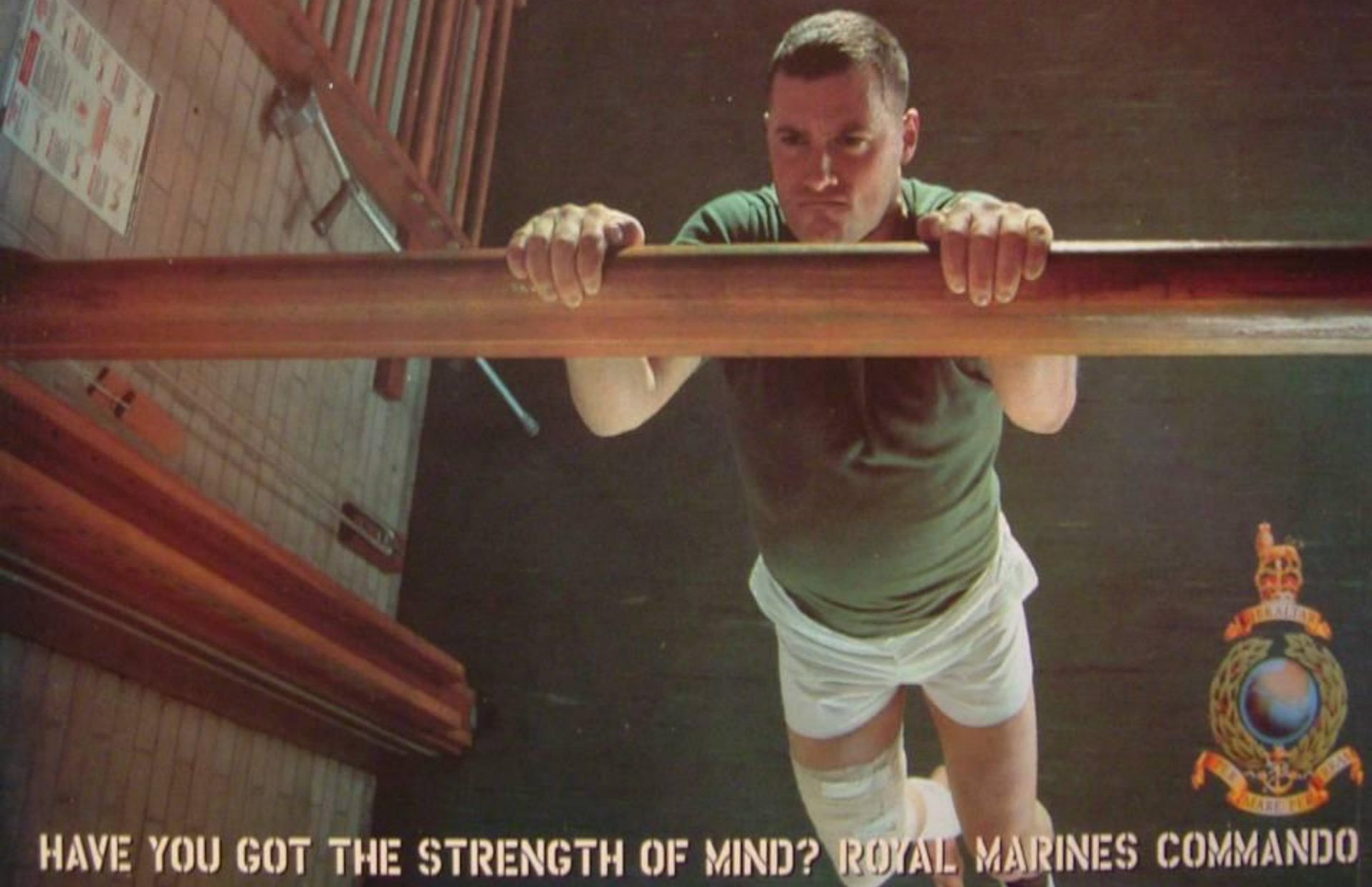






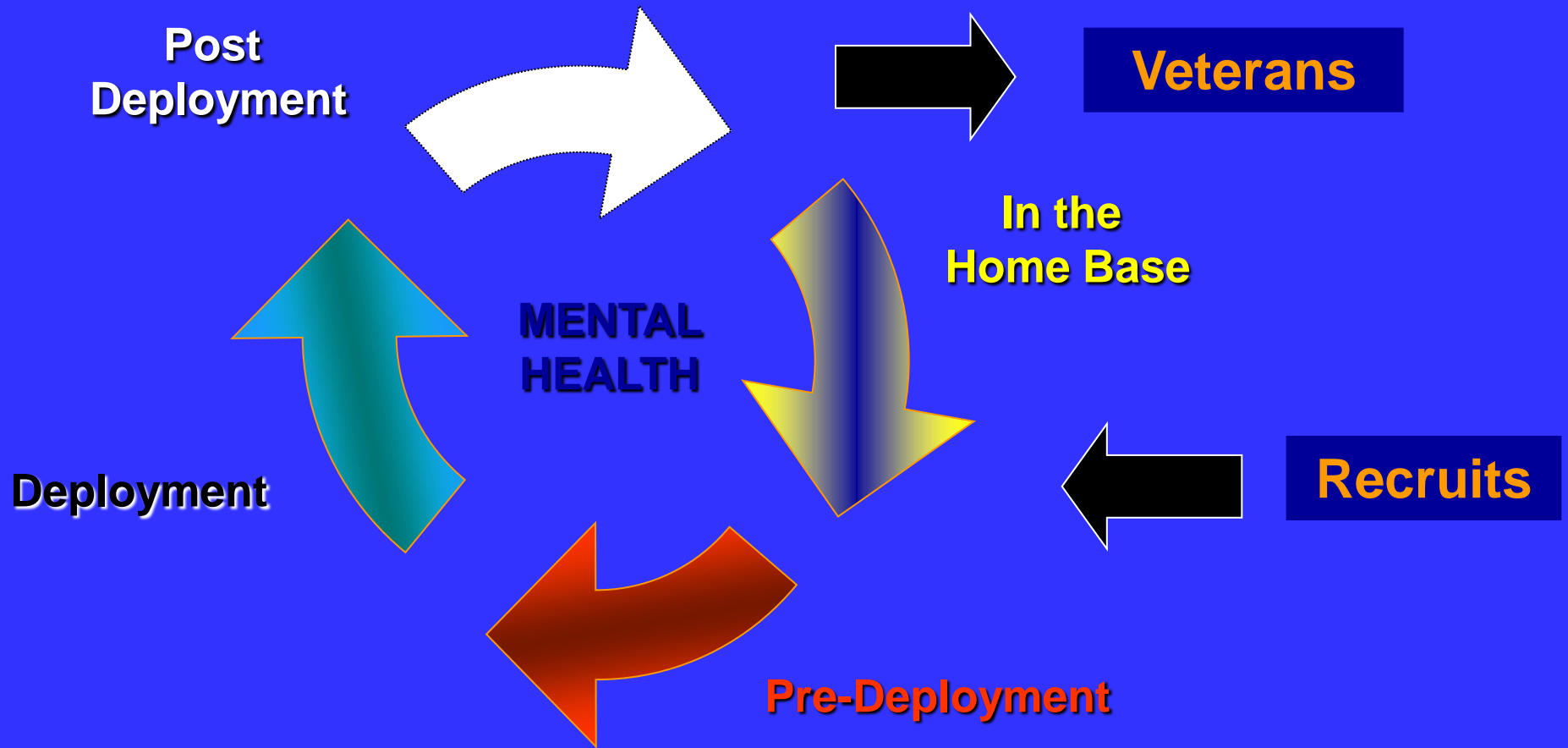


**BROKE? GET SOME BAR WORK.**



**HAVE YOU GOT THE STRENGTH OF MIND? ROYAL MARINES COMMANDO**

# The Deployment Cycle



# The UK Armed Forces

- **Who are they – as of 31 Mar 2012**
  - Full time trained strength - 170,910
  - Intake 14,490 in the last 12 months
  - Outflow 20,700 in the 12 months
- RN ~ 35,000; Army 101,000; RAF; ~ 40,000
- Varied backgrounds; ~10% female

# Defence Mental Health Services (Non-deployed)

- The psychological welfare of troops is primarily a 'Chain of Command' responsibility



- Informal support (peers, welfare, padre)



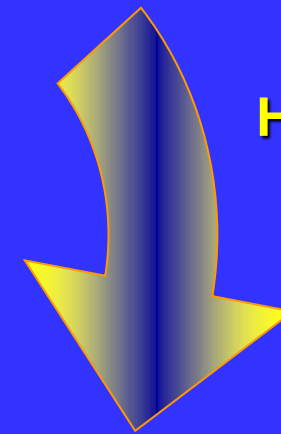
- Primary Care (GPs)



- Departments of Community Mental Health (DCMH)



- Hospital Care (ISP)

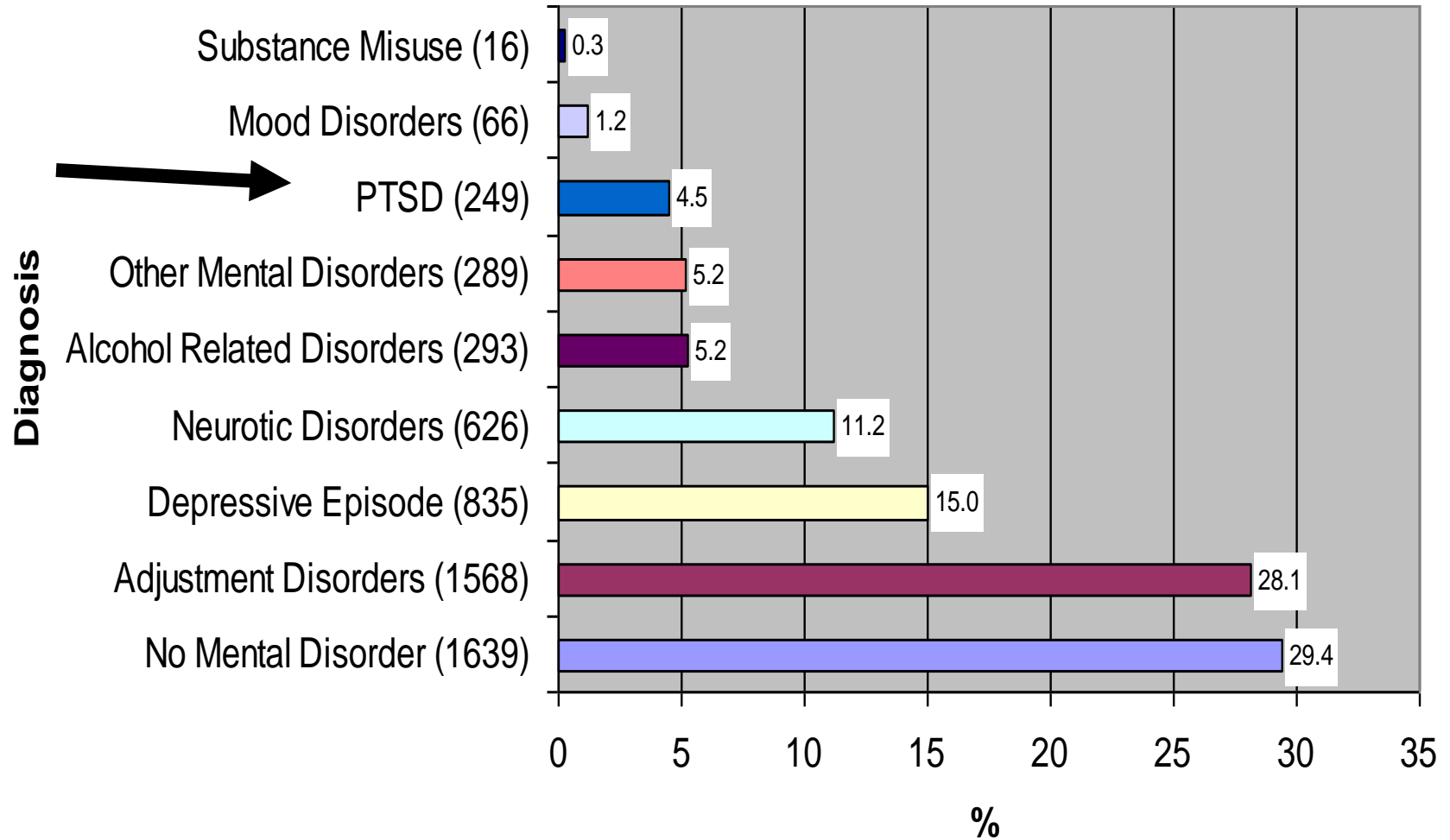


**In the  
Home Base**

# Mental Health Support – DCMH 2010

- During 2010 the DCMHs received
  - 5,581 referrals (~2% of the AF population) of which
  - 3,942 new cases of mental disorder were identified
  - So, approximately 1/3 had no diagnosis
- Referral was significantly more likely for (rates per 1000)
  - Army (21.7) and RAF (21.8) personnel than RN(11.8)/RM(7.1)
  - Females (43.1) than males (17.2)
  - Other ranks (21.4) than Officers (10.5)
  - Had been deployed to Iraq/Afghan (20.4) than not (18.3)

## DCMH Referrals - Diagnostic Categories 2010

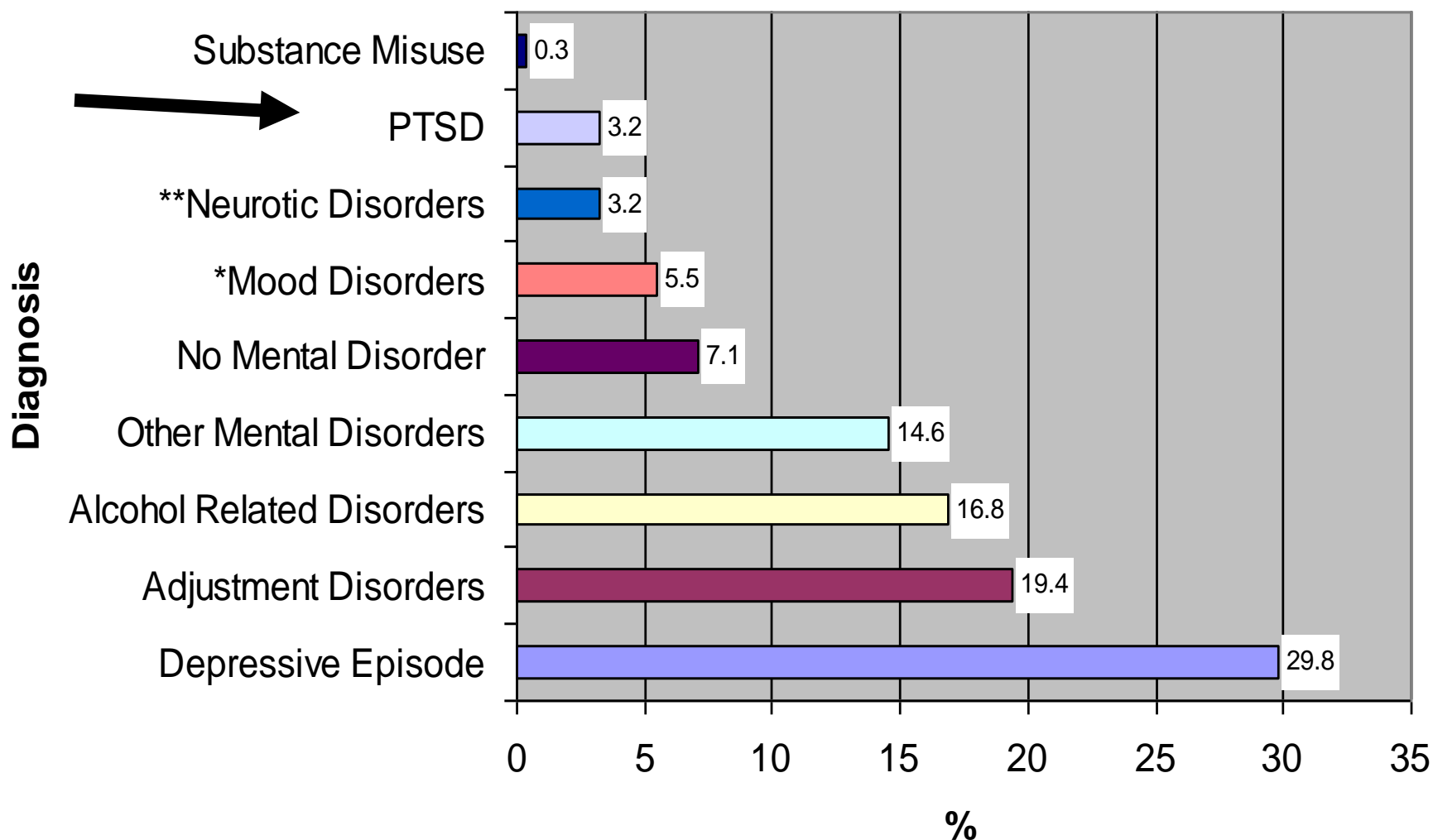


Source – DASA.mod.uk 2011

# Mental Health Hospitalisations

- Compared to the Service population, those admitted to hospital are:
  - more likely be junior
  - to be under 25 years of age
  - have a combat role
- 74% were prematurely discharged
- 73% in the first year following hospitalisation

# Mental Health Support – Hospitals 2009



\*Other than Depressive Episode \*\* Other than Adjustment Disorders and PTSD

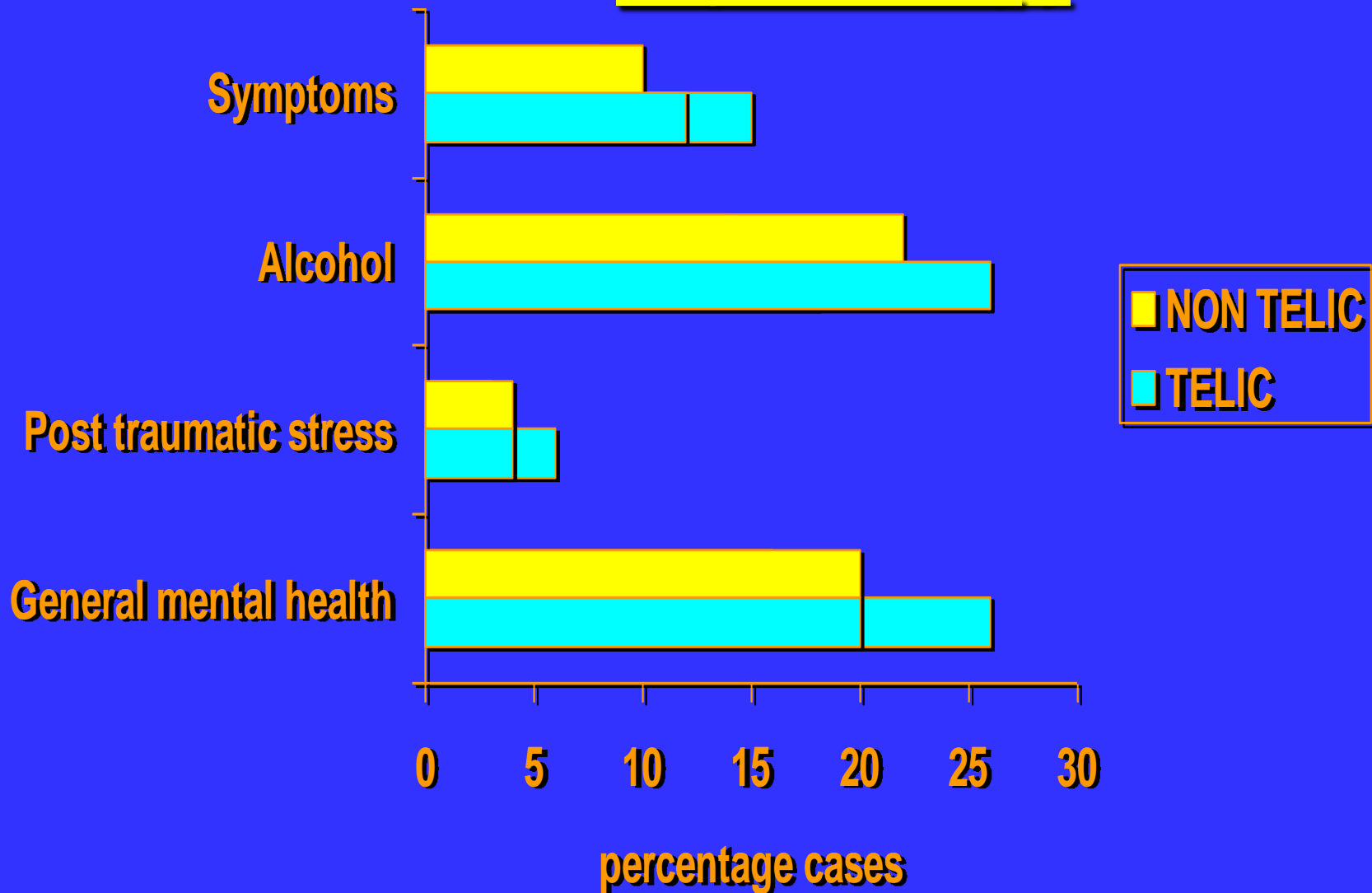
313 Admissions \*4 Cases with no recorded diagnosis

# The King's Cohort Study

- Large study 20,000 Personnel (~60% response rate)
- Case definition: OP TELIC 1 vs. everyone else
- Tri Service (proportional to TELIC orbat)
- Serving and non serving excluding SF
- 2:1 over sample of reservists
- 5 Year follow up, inc replenishment & HERRICK

# Overall Probable Mental Disorder Rates

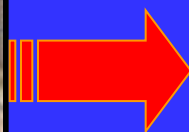
Regularly  
only



# So, What Has Happened Since Then?

**\*5 Year Follow Up**

**(9990 subjects including a Herrick Sample)**



# Overall prevalence of outcomes (at 5 years)

Outcome	Overall, % (95% confidence interval)
<b>*Probable PTSD</b>	4.0% (3.5%-4.5%)
<b>**Common Mental Disorder</b>	19.7% (18.7%-20.6%)
<b>**Alcohol Misuse</b>	13.0% (12.2%-13.8%)

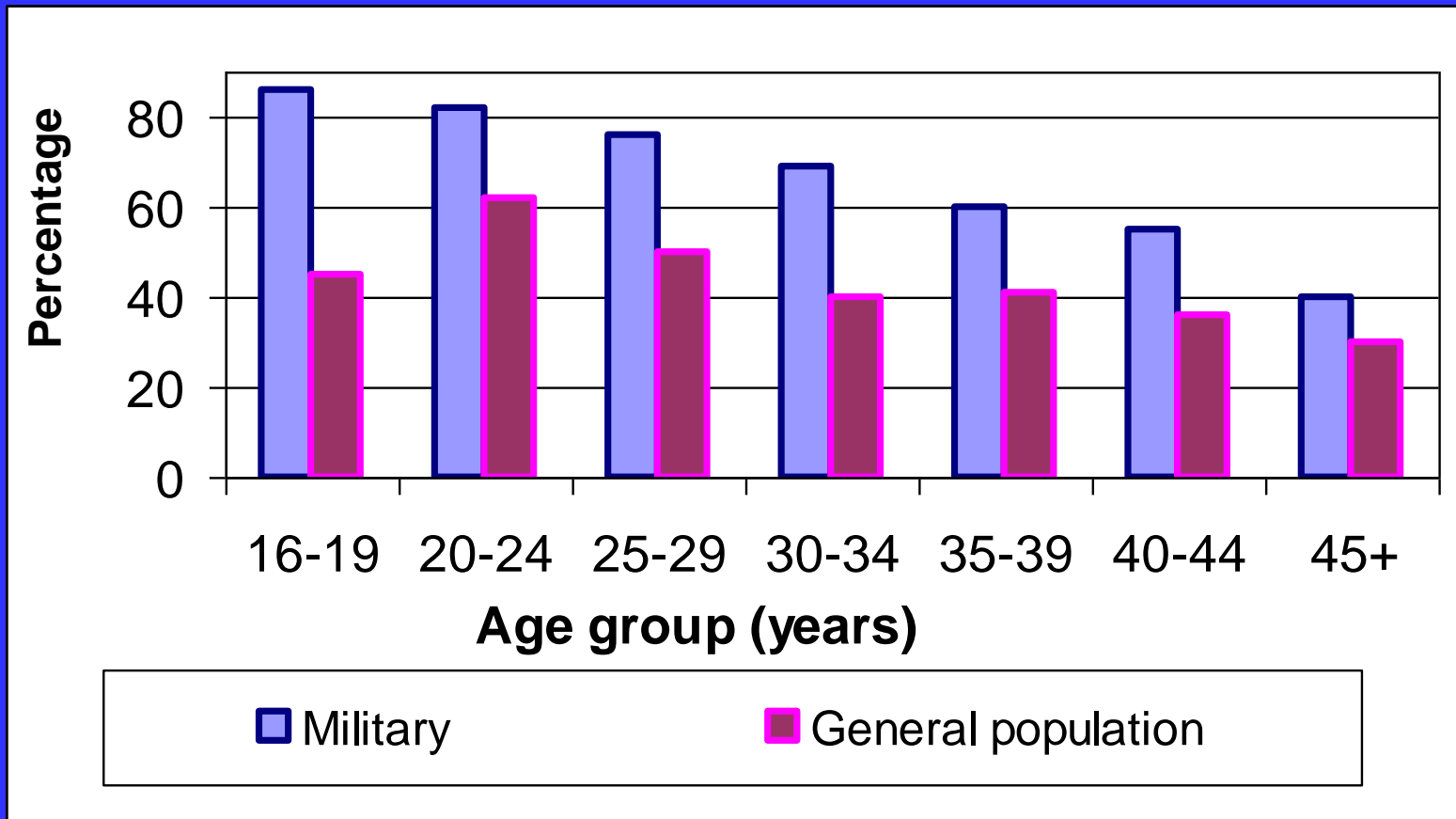
# Role of combat

Outcome	Combat (25.0%)	Combat support (12.0%)	Combat service support (63.1%)
Probable PTSD	6.9%	2.1%	3.6%
Common mental disorders	20.6%	18.3%	19.7%
Alcohol misuse	22.5%	10.8%	14.2%

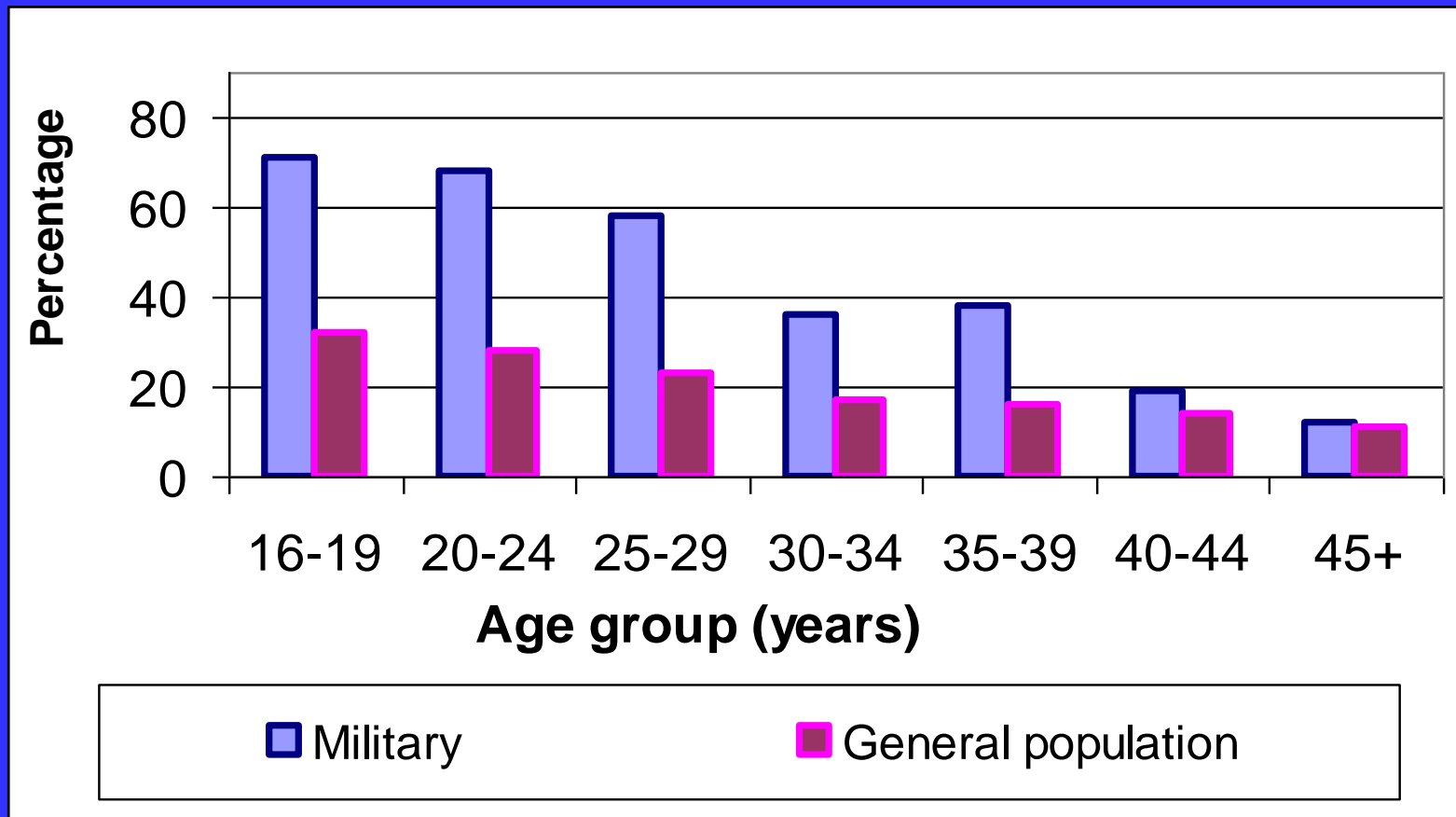
# Alcohol (mis)use in the military



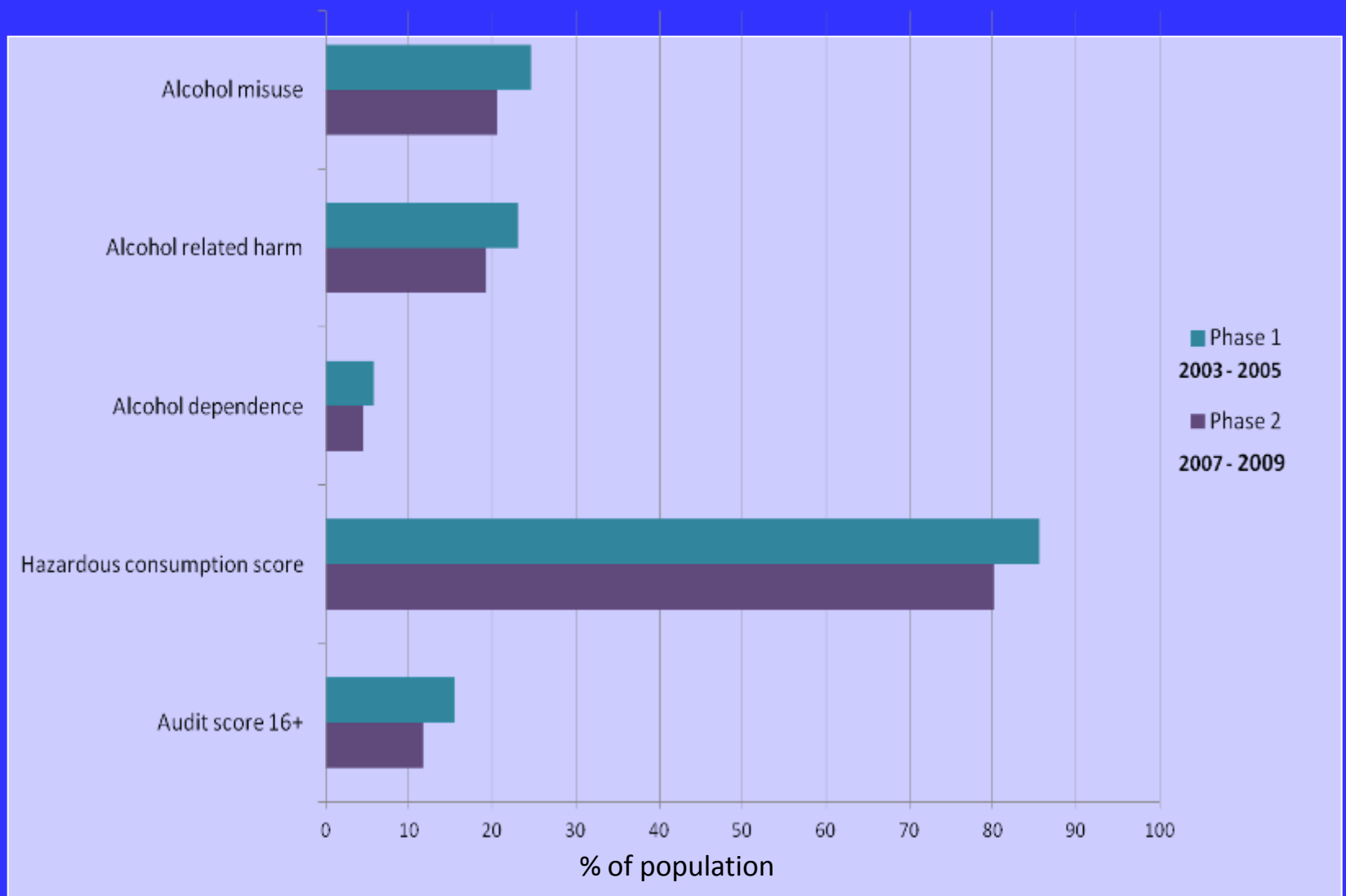
# UK Armed Forces vs. the general population: **Males (67% vs. 38%)**



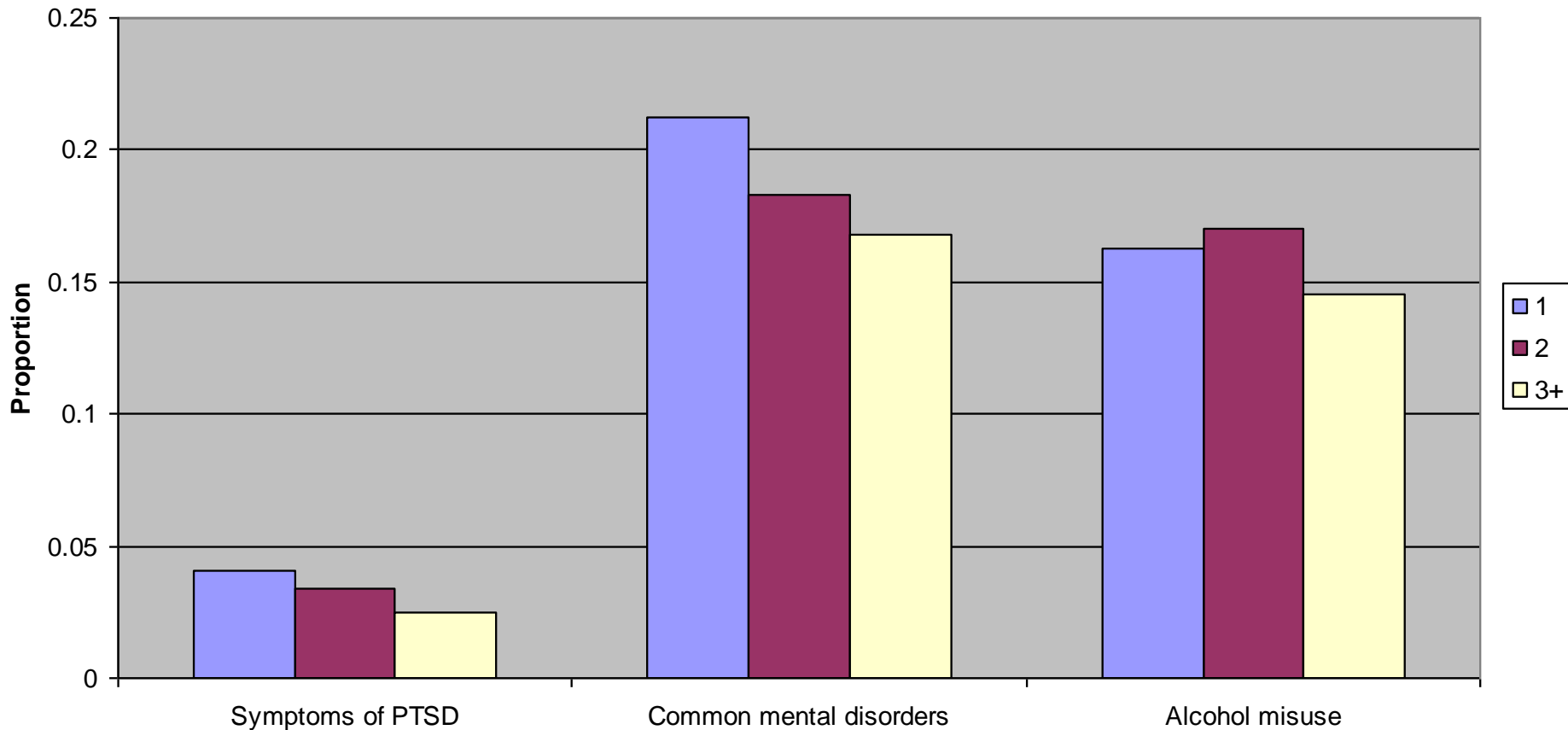
# UK Armed Forces vs. the general population: **Females (49% vs. 16%)**



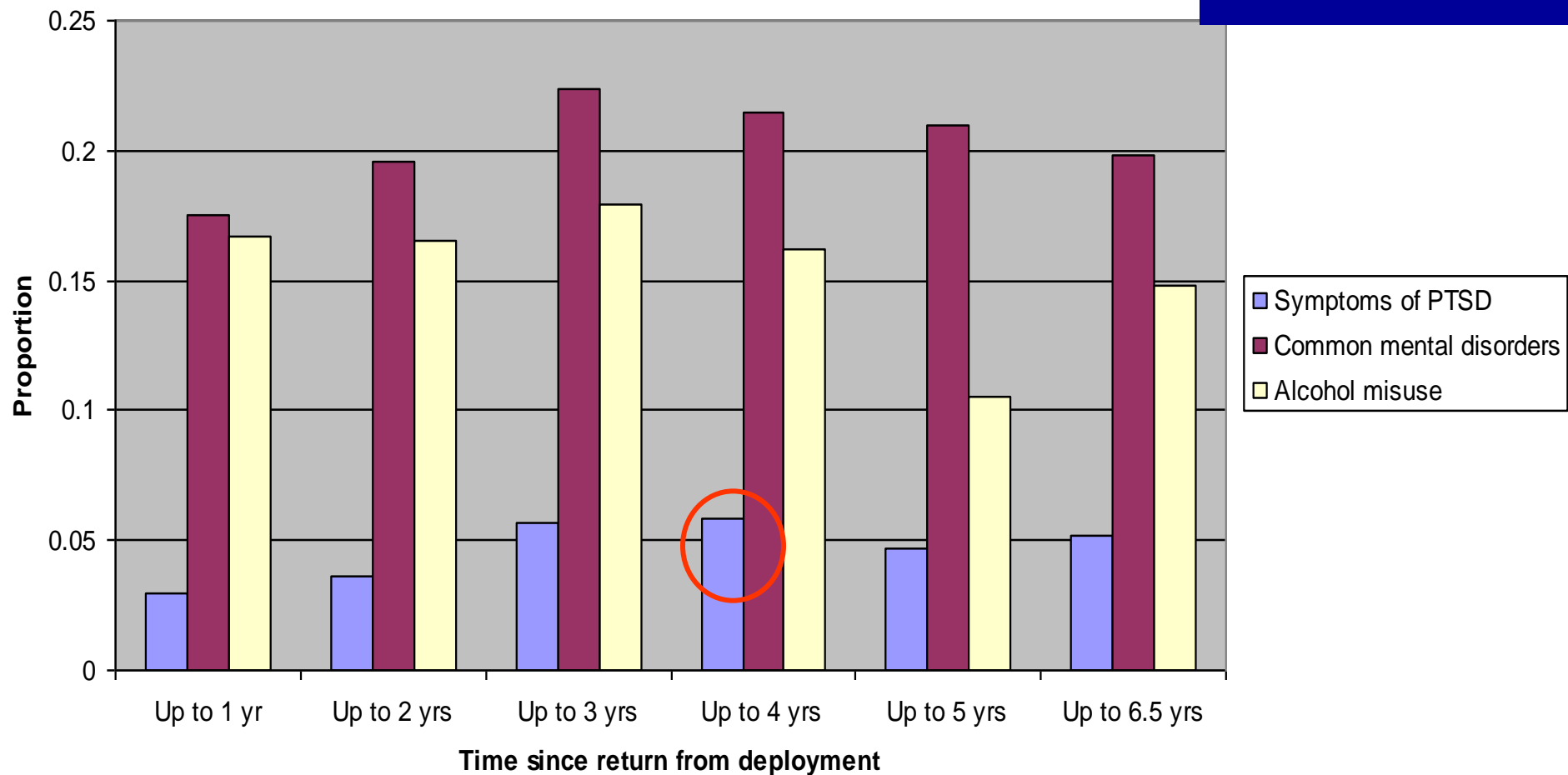
# The effects of time – Changes between study phases



# Number of deployments – currently serving Army regulars



# What Happens to Probable PTSD Post-deployment over time?



# In Summary....

- The overall mental health of UKAF remained stable over 5 years
- Alcohol misuse continues to be a bigger problem than probable PTSD
- Deployment still associated with probable PTSD in combat troops (and reserves) and alcohol misuse in regulars
- Still no association with number of deployments
- Weak relationship between time since return from deployment and probable PTSD

# Deployment Mental Health



Deployment

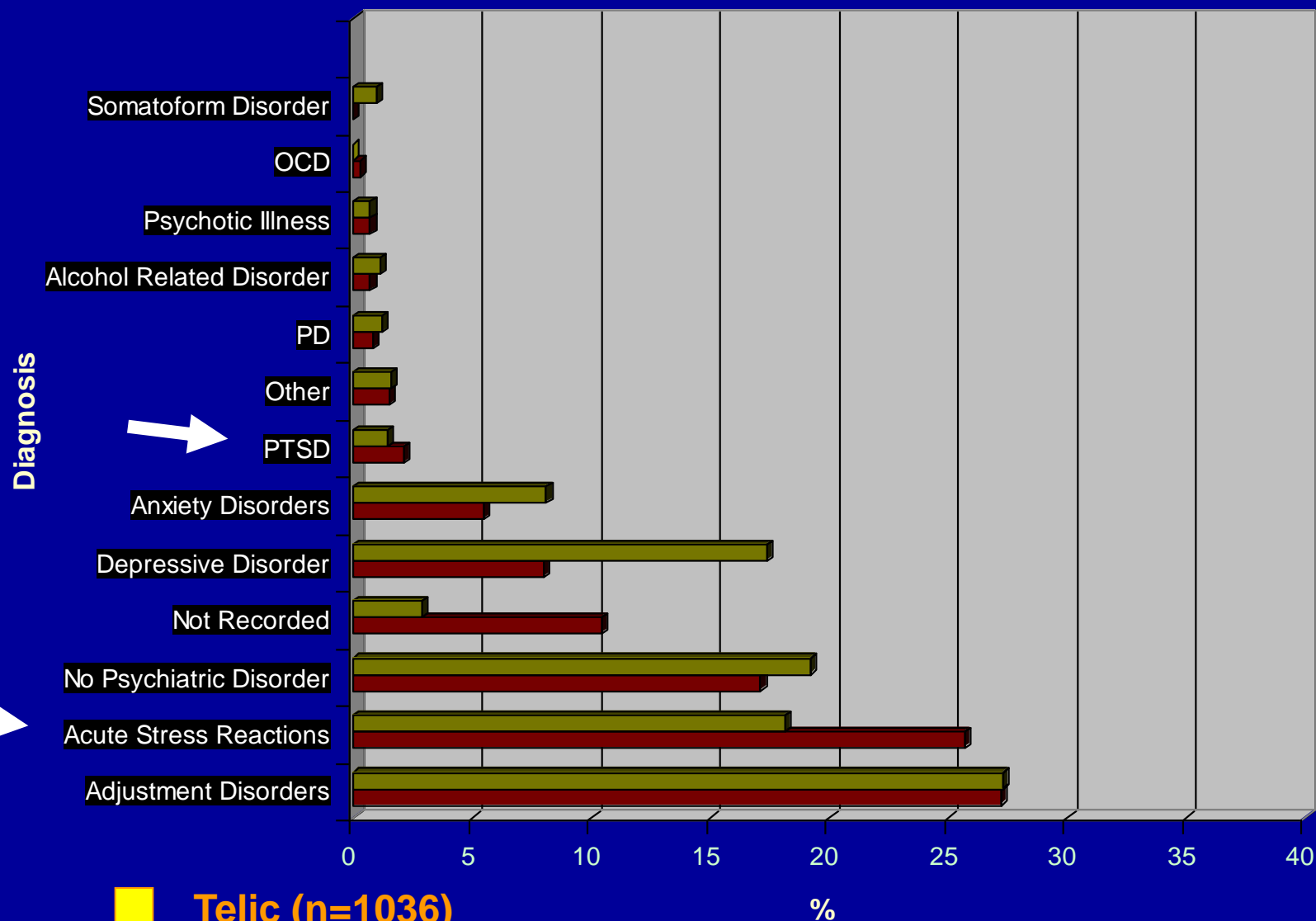


# Operational Mental Health Casualties



- All major UK AF deployments include mental health professional in the team
- Uniformed Psychiatrists and Community MH nurses make up the Field Mental Health Teams (FMHT)

# FMHT Diagnostics



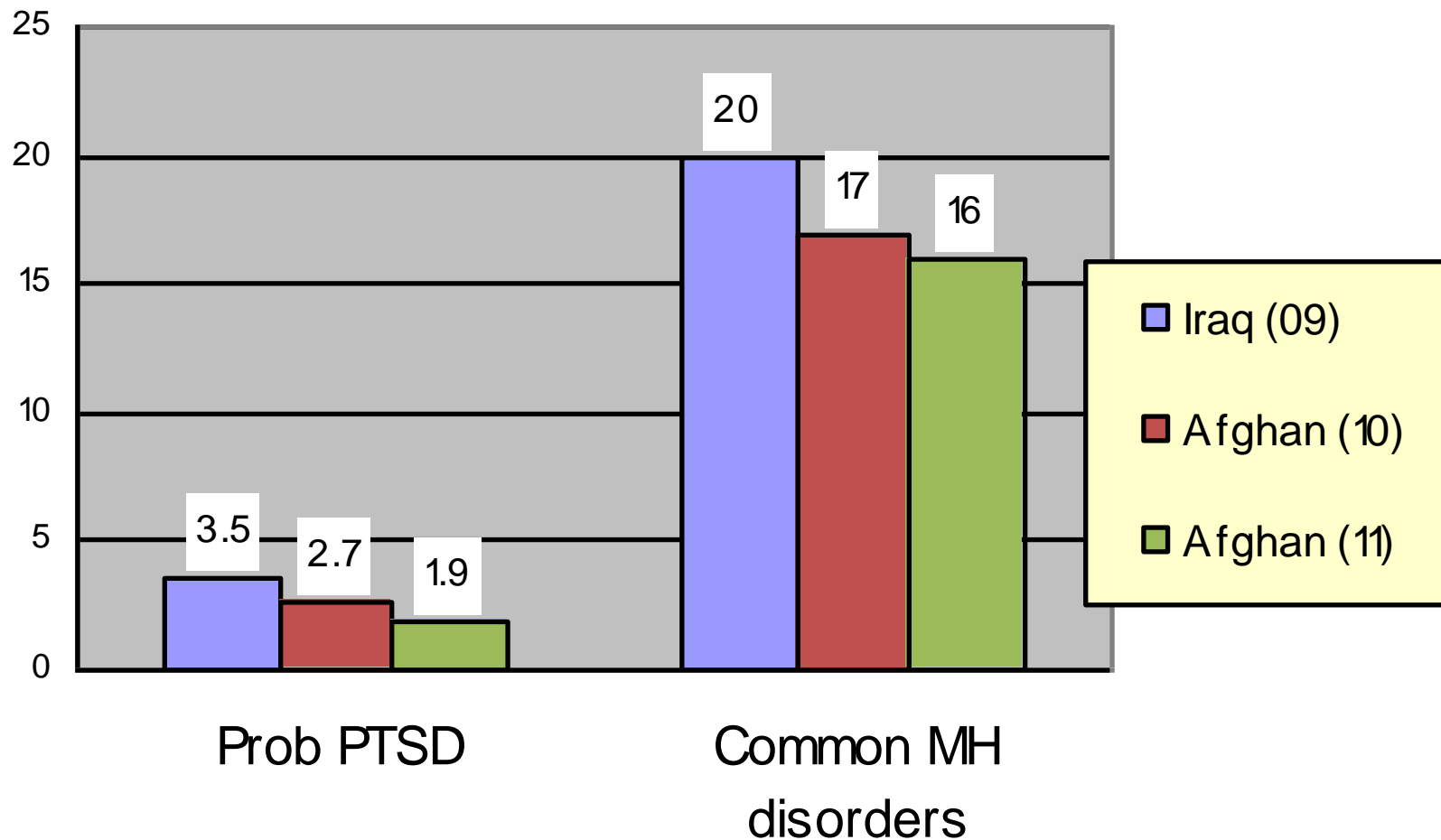
■ Telic (n=1036)

■ Herrick (n= 614)

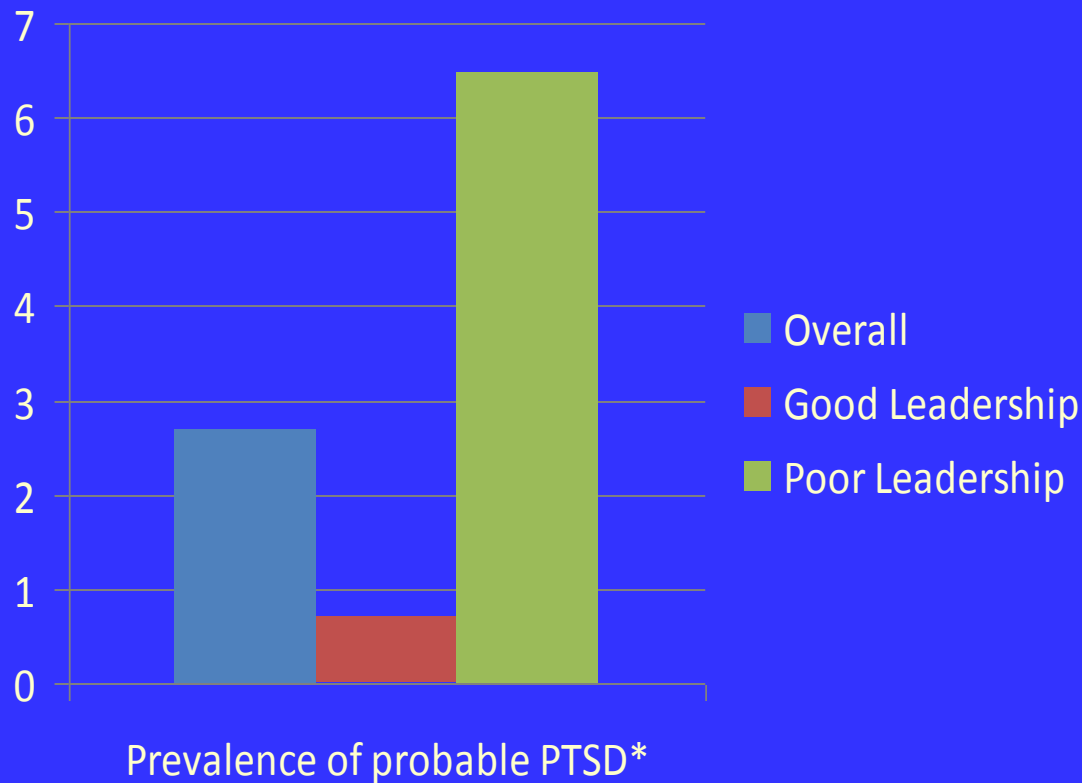
# The Operational Mental Health Needs Evaluation (OMHNE)



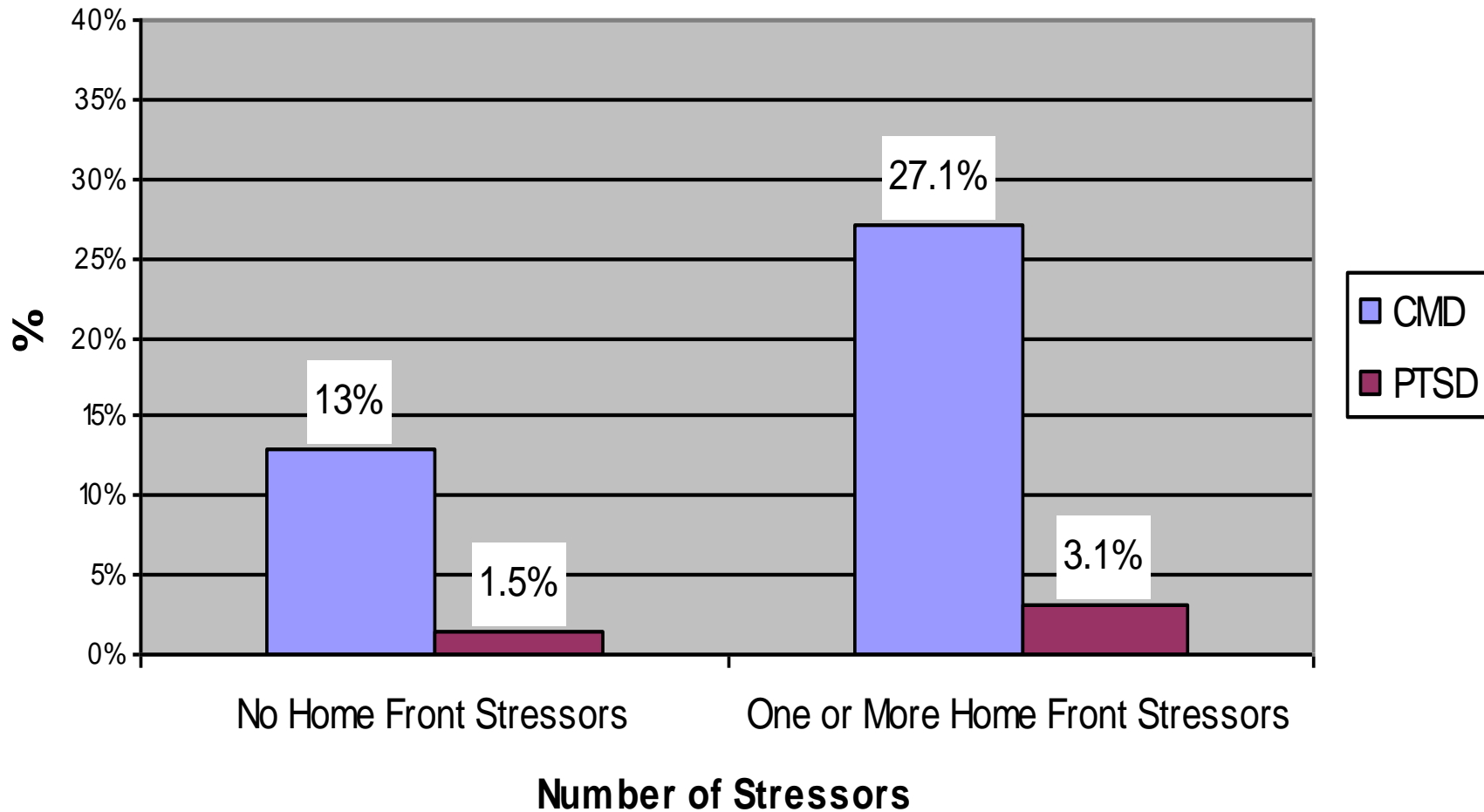
# Deployed Mental Health Status



# Leadership and Probable PTSD (Afghan 2010)



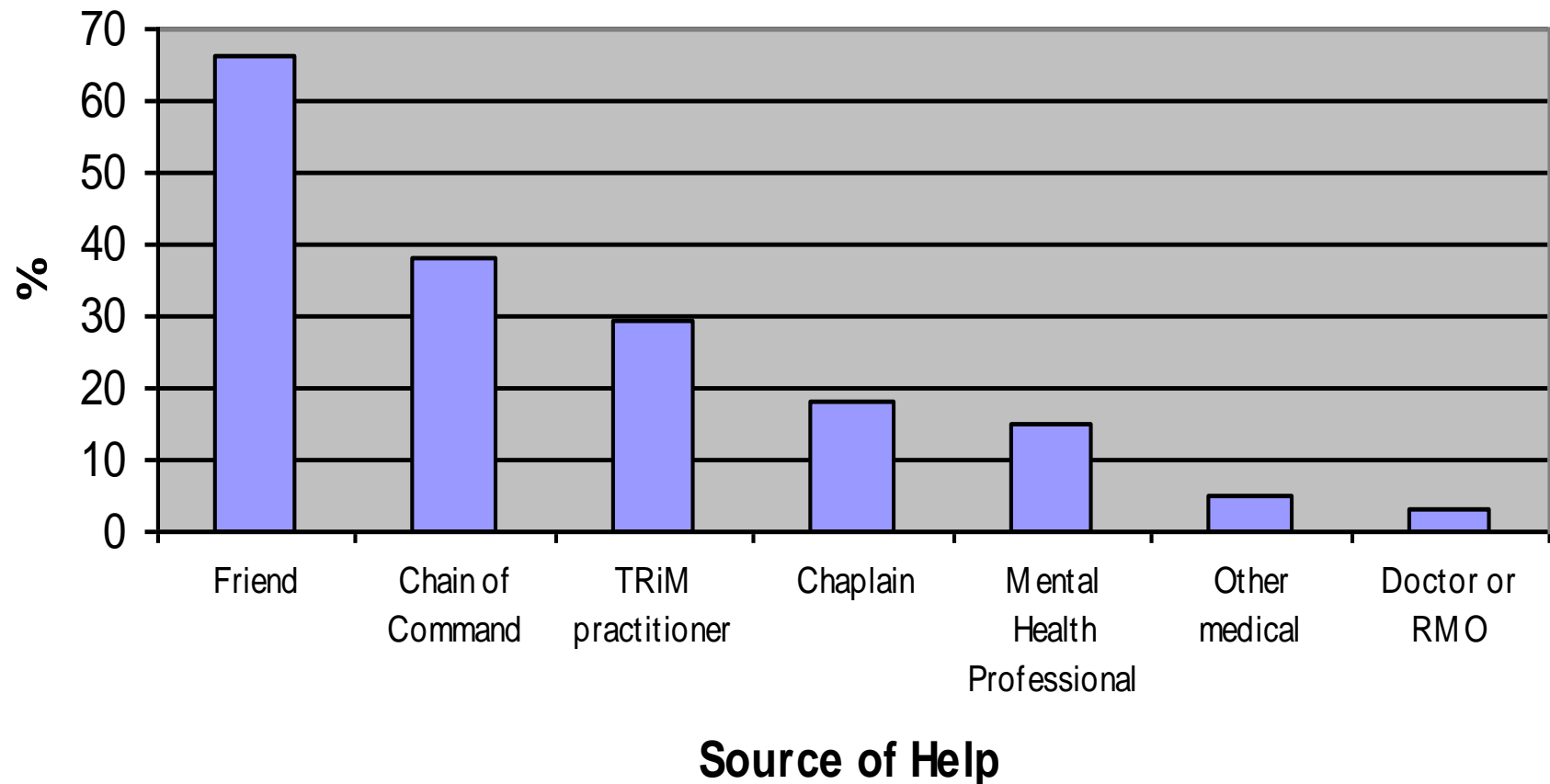
# Home Front Stressors & Mental Health



PTSD  $\chi^2=3.36$ ,  $df=1$ ,  $p=0.067$

CMD  $\chi^2=3.33$ ,  $df=1$ ,  $p=0.067$

# Where do deployed personnel get support/help



%s may not add up to 100% as some reported more than one source of help

# Trauma Risk Management (TRiM)



# Trauma Risk Management

- TRiM is a form of psychological first aid
- Reinforces good personnel management
- Ensures that the unit can monitor those exposed to traumatic incidents
- Problem solving, mentoring & referral
- Not psychological debriefing/CISD

# Trauma Risk Management

- It formed 14 (+) years ago
- Began in Royal Marines units, now Tri-Service
- They range in rank from Marine to Brigadier
- Also used by BBC, FCO, St John and London Ambulance Services and some UK Police Forces

## RIFLE DRILLS

### LOAD

1. POINT WEAPON INTO UNLOADING BAY
2. ENSURE SAFETY CATCH IS AT "0"
3. TILT WEAPON TO THE RIGHT
4. CHECK THAT THE TOP ROUNDS ARE SEATED CORRECTLY
5. PUSH THE MAGAZINE FIRMLY INTO THE MAGAZINE HOUSING, MAKING CERTAIN IT IS SECURE

### UNLOAD

1. POINT WEAPON INTO UNLOADING BAY
2. ENSURE SAFETY CATCH IS AT "0"
3. REMOVE MAGAZINE
4. TILT THE WEAPON TO THE RIGHT, COCK THE WEAPON, AND APPLY THE HOLDING OPEN DEVICE
5. ENSURE THE BODY CHAMBER AND FACE OF THE BOLT IS CLEAR AND THAT THE MAGAZINE HOUSING IS CLEAR OF ROUNDS. AGAIN CHECK THE BODY CHAMBER AND FACE OF THE BOLT IS CLEAR
6. RELEASE THE WORKING PARTS, FORWARD ALONG THE SAFETY CATCH TO "0" AND SPRING THE TRIGGER
7. REPLACE SAFETY CATCH TO "0", CLOSE BOLT COVER AND CHECK SIGHTS

## PISTOL DRILLS

### LOAD

1. POINT WEAPON INTO

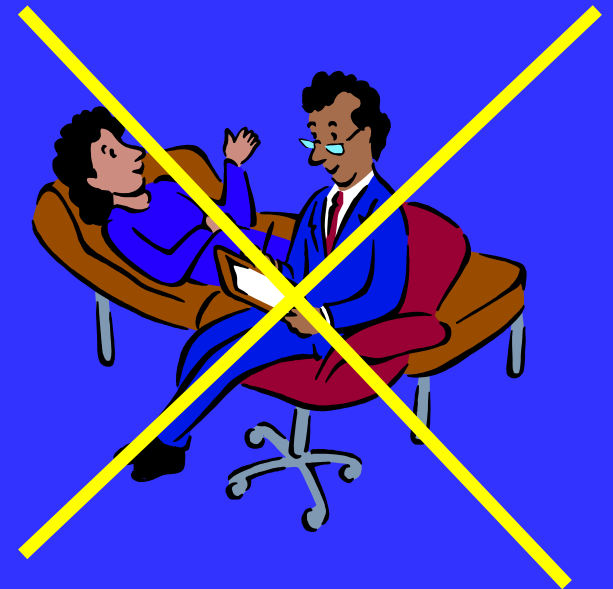
### UNLOAD

1. POINT WEAPON INTO LOADING BAY
2. REMOVE MAGAZINE
3. COCK WEAPON AND APPLY THE SLIDE LOCKING LEVER
4. ENSURE BODY CHAMBER AND MAGAZINE HOUSING ARE CLEAR OF ROUNDS
5. RELEASE THE SLIDE UNDER CONTROL
6. REPLACE AN EMPTY MAGAZINE AND OPERATE THE TRIGGER
7. REMOVE MAGAZINE



# What Peer Practitioners are not!

- Counsellors
- Therapists
- Pseudo-psychologists
- Group Huggers
- Scented Candle users



## Peer-group risk assessment: management strategy for his organizations

N. Jones<sup>1</sup>, P. Roberts<sup>2</sup> and N. Greenberg<sup>3</sup>

**Background** Organizations have moral an their workforce following ex workplace. Additionally, it ma to the effects of psychological of psychological intervention events but recent evidence

## ORIGINAL PAPERS

### TRAUMA RISK MANAGEMENT (TRiM) IN THE UK ARMED FORCES

N Greenberg<sup>1</sup>, V Langston<sup>2</sup>, N Jones<sup>3</sup>

<sup>1</sup>Association

**Abstract**

Management (TRiM) is a novel system of post incident management which intend to allow commanders to opriate support to their subordinates in the aftermath of traumatic events operational tempo being experienced by the majority of the UK Armed F as been in use in both Iraq and Afghanistan. Although TRiM originated l y used in both the Royal Navy and Army; there are also plans to introduc r Force such as for the RAF Regiment. This paper aims to explore the bas

TRiM  
publications

Occupational Medicine Advance Access published April 5, 2011

Occupational Medicine  
doi:10.1093/occmed/kqr022

## The acceptability of 'Trauma Risk Management' within the UK Armed Forces

N. Greenberg<sup>1</sup>, V. Langston<sup>2</sup>, A. C. Iversen<sup>2</sup> and S. Wessely<sup>2</sup>

<sup>1</sup>Academic Centre for Defence Mental Health, Weston Education Centre, Cutcombe Road, London SE5 9RJ, UK, <sup>2</sup>King's Centre for Military Health Research, Weston Education Centre, Cutcombe Road, London SE5 9RJ, UK.

Correspondence to: N. Greenberg, Academic Centre for Defence Mental Health, Weston Education Centre, Cutcombe Road, London SE5 9RJ, UK. Tel: +44 (0)20 7848 5351; fax: +44 (0)207 848 5397; e-mail: sososanta@aol.com

**Background** Trauma-support programmes may benefit employees of organizations that routinely expose their staff to traumatic events. However, in order for such programmes to be effective, staff need to find them acceptable.

**Aims** To investigate whether Trauma Risk Management (TRiM), an example of such a programme, is ac-

## Psychological risk assessment following the terrorist attacks in New York in 2001

NEIL GREENBERG<sup>1</sup>, C. DOW<sup>2</sup>, & DUNCAN BLAND<sup>1</sup>

<sup>1</sup>King's Centre for Military Health Research, Weston Education Centre, London, and <sup>2</sup>Health and Welfare Department, Foreign and Commonwealth Office, London, UK

**Abstract**

**Background:** Trauma Risk Management (TRiM) is a post-traumatic psychological management model utilizing peer support/assessment, developed by the UK military. Following September 11th, 2001, the UK Foreign & Commonwealth Office (FCO) deployed TRiM personnel to New York. **Aims:** This report describes the use of TRiM by the FCO in New York and examines the correlation validity of the TRiM assessments.

**Method:** Assessments were conducted among personnel shortly after the event and again after a

Journal of Traumatic Stress, Vol. 23, No. 4, August 2010, pp. 430–436 (© 2010)

## A Cluster Randomized Controlled Trial to Determine the Efficacy of Trauma Risk Management (TRiM) in a Military Population

Neil Greenberg, Victoria Langston, Brian Everitt, Amy Iversen, Nicola T. Fear, Norman Jones, and Simon Wessely  
King's College London and Institute of Psychiatry, London

*Trauma Risk Management is a peer-support program that aims to promote help-seeking in the aftermath of traumatic events. Prior to its implementation, the British military conducted a randomized controlled trial of Trauma Risk Management against standard care in 12 warships; 6 were randomized to use Trauma Risk Management after collecting baseline measurements. Follow up after 12–18 months found no significant change in psychological health or stigma scores in either group; however, the studied vessels only encountered low numbers of critical incidents. Additionally, measurements of organizational functioning were modestly better in the Trauma Risk Management ships. The authors conclude that within organizations using Trauma Risk Management may be beneficial and may, in time, lead to a valuable cultural shift.*

## Does trauma risk management reduce psychological distress in deployed troops?

W. Frappell-Cooke<sup>1</sup>, M. Gulina<sup>2</sup>, K. Green<sup>3</sup>, J. Hacker Hughes<sup>1</sup> and N. Greenberg<sup>1</sup>

<sup>1</sup>Defence Clinical Psychology Service, HQ Surgeon General, DMS Whittington, Lichfield, Staffordshire WS14 9PY, UK, <sup>2</sup>Department of Psychology, City University, Northampton Square, London EC1V 0HB, UK, <sup>3</sup>Navy Command Headquarters, MP 3-1, Leach Building, Whale Island, Portsmouth PO2 8BY, UK, <sup>4</sup>Academic Centre for Defence Mental Health, London, UK.

Correspondence to: N. Greenberg, Academic Centre for Defence Mental Health, Academic Department of Psychological Medicine (IOP), Weston Education Centre, Cutcombe Road, London SE5 9RJ, UK. Tel: +44 (0)207 848 5351; fax: +44 (0)207 848 5397; e-mail: wfcp@psych@talktalk.net

**Background** Military personnel exposed to potentially traumatic events whilst deployed on operational duties may develop psychological problems. The Royal Marines have made extensive use of Trauma Risk Management (TRiM), a peer-support system that operates through practitioners embedded within operational units. TRiM aims to promote recognition of psychological illness and to facilitate social support.

## Stigma and the Military: Evaluation of a PTSD Psychoeducational Program

Matthew Gould  
Department of Clinical Psychology, Royal Holloway University of London, Egham, Surrey,  
TW20 0EX, UK

Neil Greenberg  
King's Centre for Military Health Research, Weston Education Centre, Cutcombe Road,  
London, SE5 9RJ, UK

Jacqui Hetheron  
Department of Clinical Psychology, Royal Holloway University of London, Egham, Surrey,  
TW20 0EX, UK

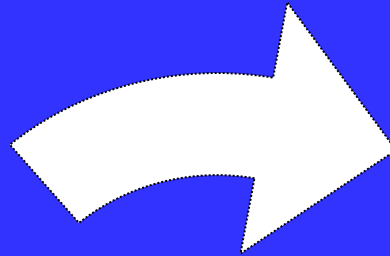
*Trauma risk management (TRiM) is an intensive posttraumatic stress disorder (PTSD) psychoeducational management strategy based on peer-group risk assessment developed by the UK Royal Navy (RN). TRiM seeks to modify attitudes about PTSD, stress, and help-seeking and trains military personnel to identify at-risk individuals and refer them for early intervention. This quasiexperimental study found that TRiM training significantly improved attitudes about PTSD, stress, and help-seeking from TRiM-trained personnel. There was a nonsignificant effect on attitudes to seeking help from normal military support networks and on general health. Within both the military and civilian populations, stigma is a serious issue affecting help-seeking and reducing quality of life. The results suggest that TRiM is a*

# In summary the TRiM research says....

- TRiM may help spot people who are in need
- TRiM may help mobile social support
- TRiM may help with occupational functioning
- TRiM use appears acceptable
- TRiM may help with stigma/barriers to care

# Post Deployment

Post  
Deployment



- Troops who return home from operations go through a process called Post Operational Stress Management which includes mental health briefings and decompression – the POSM process last for around 12 weeks.

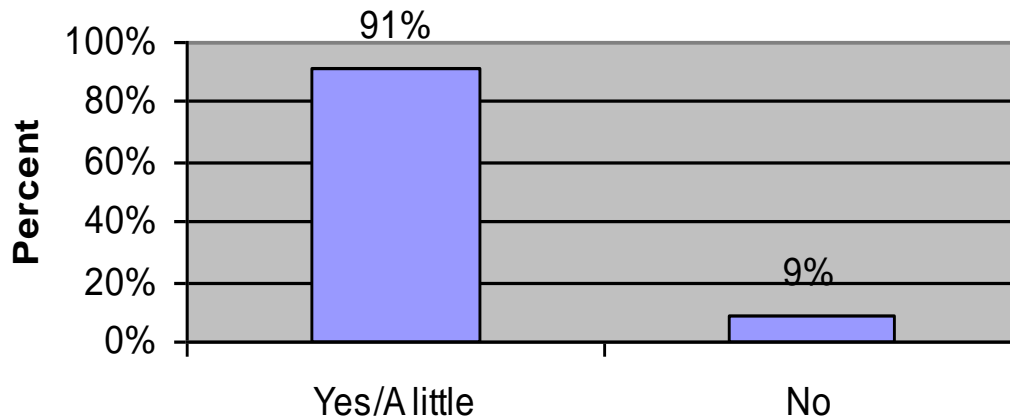
# Third Location Decompression

- Troops who 'fight together should unwind together'
- First stage of POSM
- Takes place in Cyprus, 36 hours long, social, informal and includes mental health briefings, homecoming briefings and risky driving briefings

# Post Deployment - Decompression

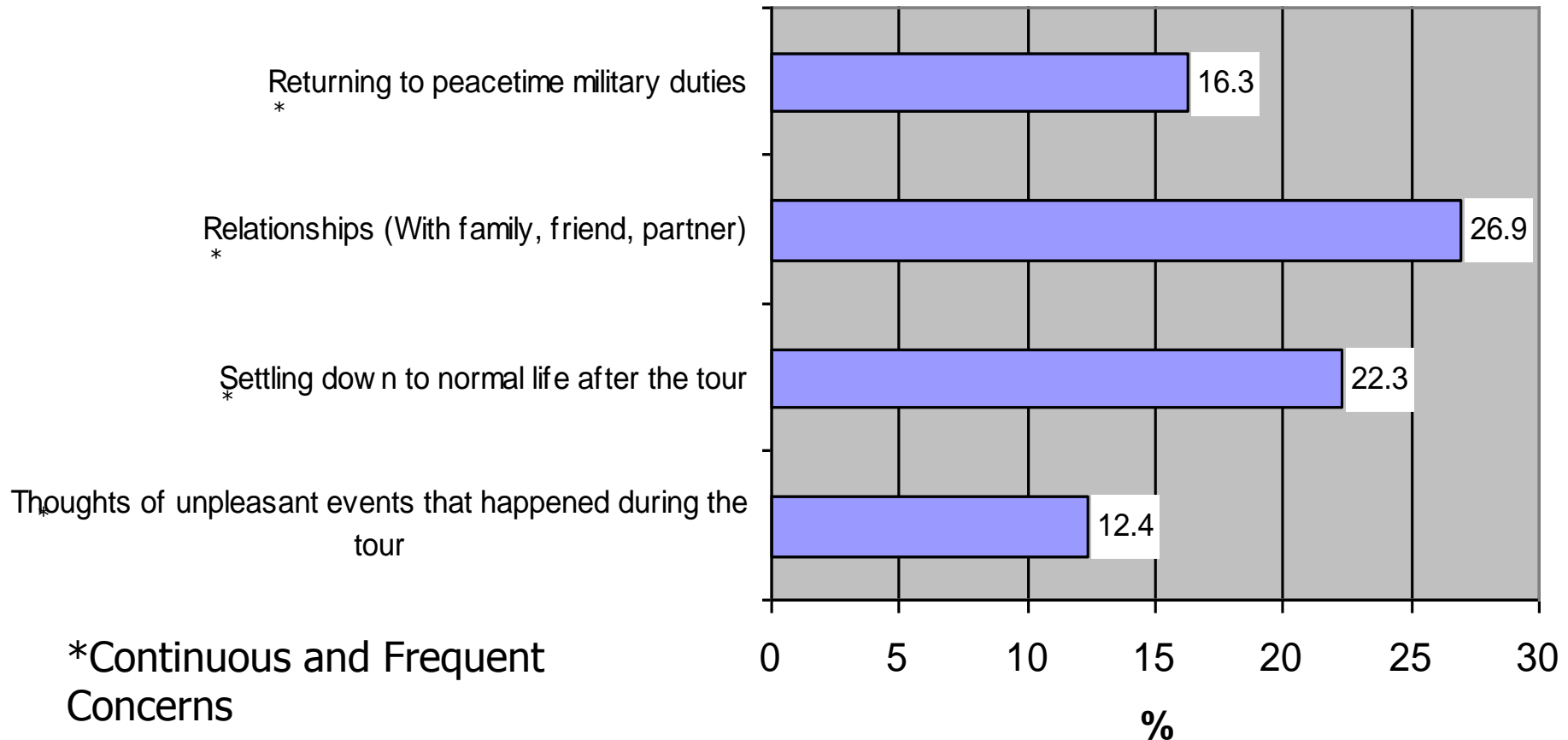
- Prior to attending DcN ~80% did not want to go or were ambivalent
- Having been through DcN...

Was Decompression Useful



# Homecoming Adjustment Scale

Personnel were more concerned about relationships issues than 'traumatic situations'



# Decompression 'research'

- Many personnel do not want to go to DcN, having been they like it and think it will be helpful
- Less helpful for
  - those on 2nd (or more) tours in last five years
  - Seniors ranks
- More helpful for
  - Those who have high combat exposure
  - Those with more adjustment concerns
- However – current evidence is not based upon 'robust clinical trials' (note: US interest in DcN might lead to them running a trial)

# UK Battlemind RCT Trial

## Deployment BATTLEMIND

Buddy Buddy System  
Accountability  
Targeted Aggression  
Tactical Awareness  
Limited Alcohol  
Emotional Control  
Mission Operational Security  
Individual Responsibility  
Non-Defensive (Combat) Driving  
Discipline and Ordering

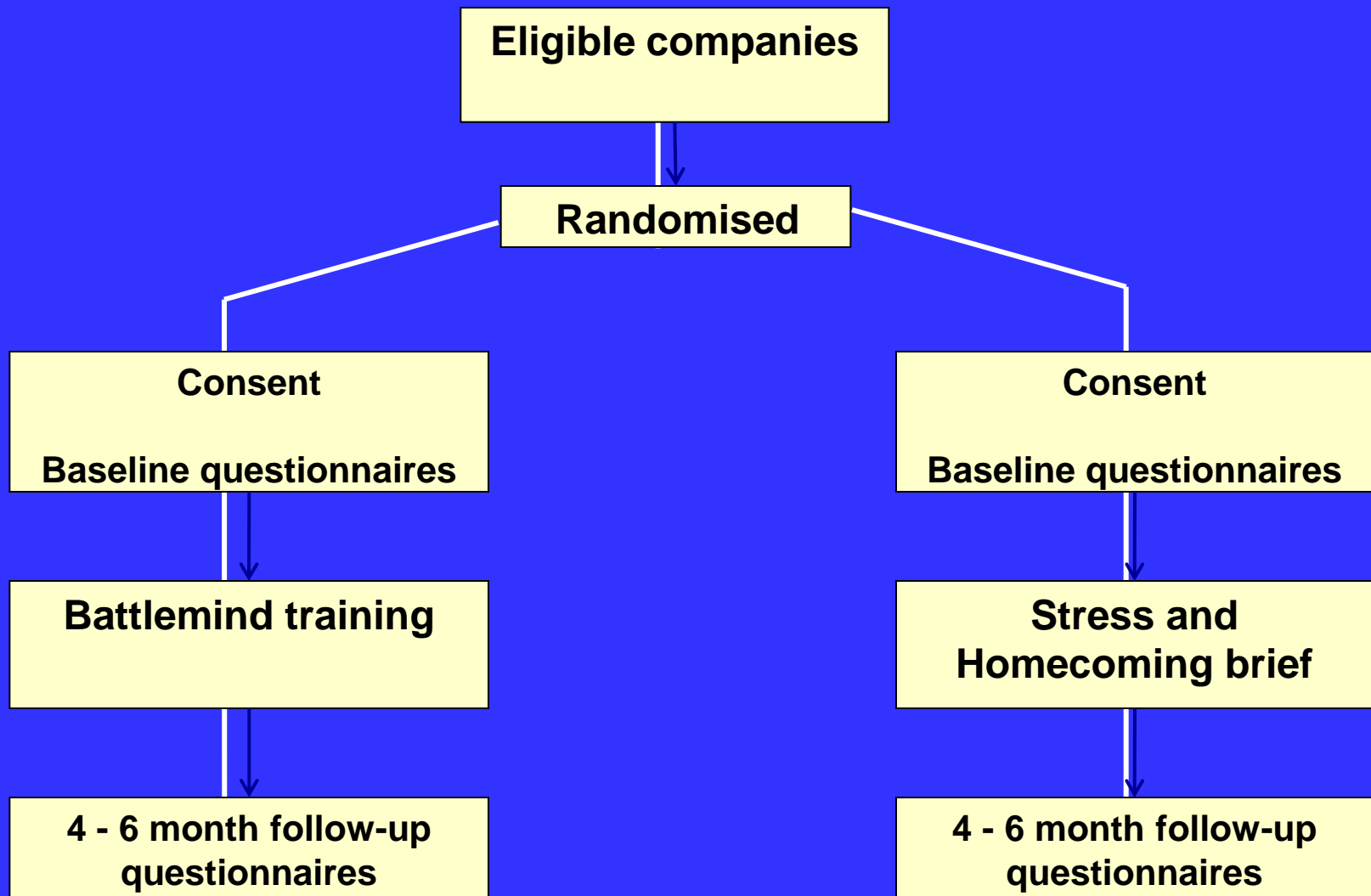
## Home Front Problems

Withdrawal  
Controlling at home  
General Aggression  
Being on Edge  
Lagered up  
Detachment & Numbness  
Secretiveness  
Guilt  
Unnecessary Risk-taking  
Conflict with Friends & Family

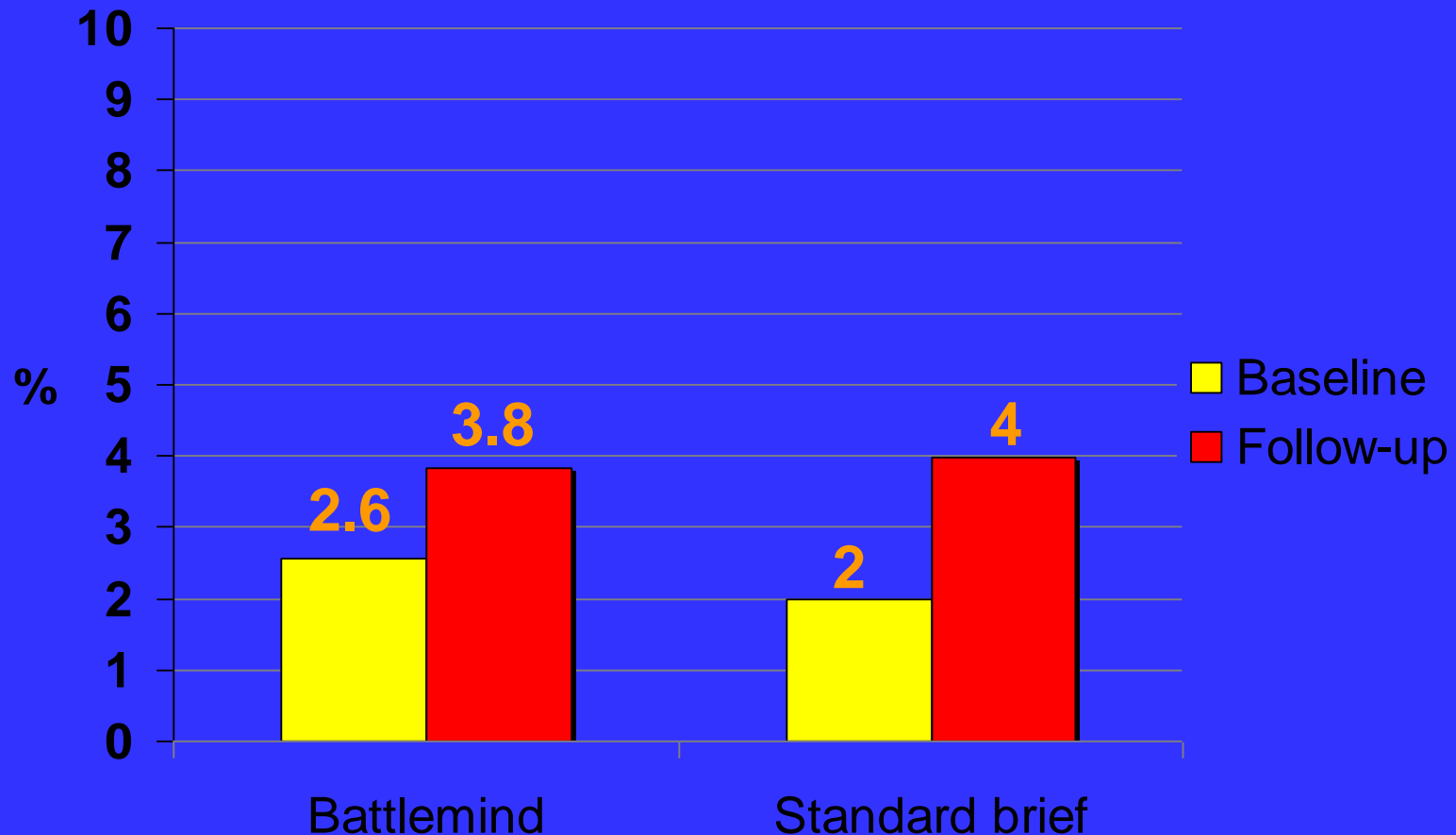


[www.battlemind.co.uk](http://www.battlemind.co.uk)

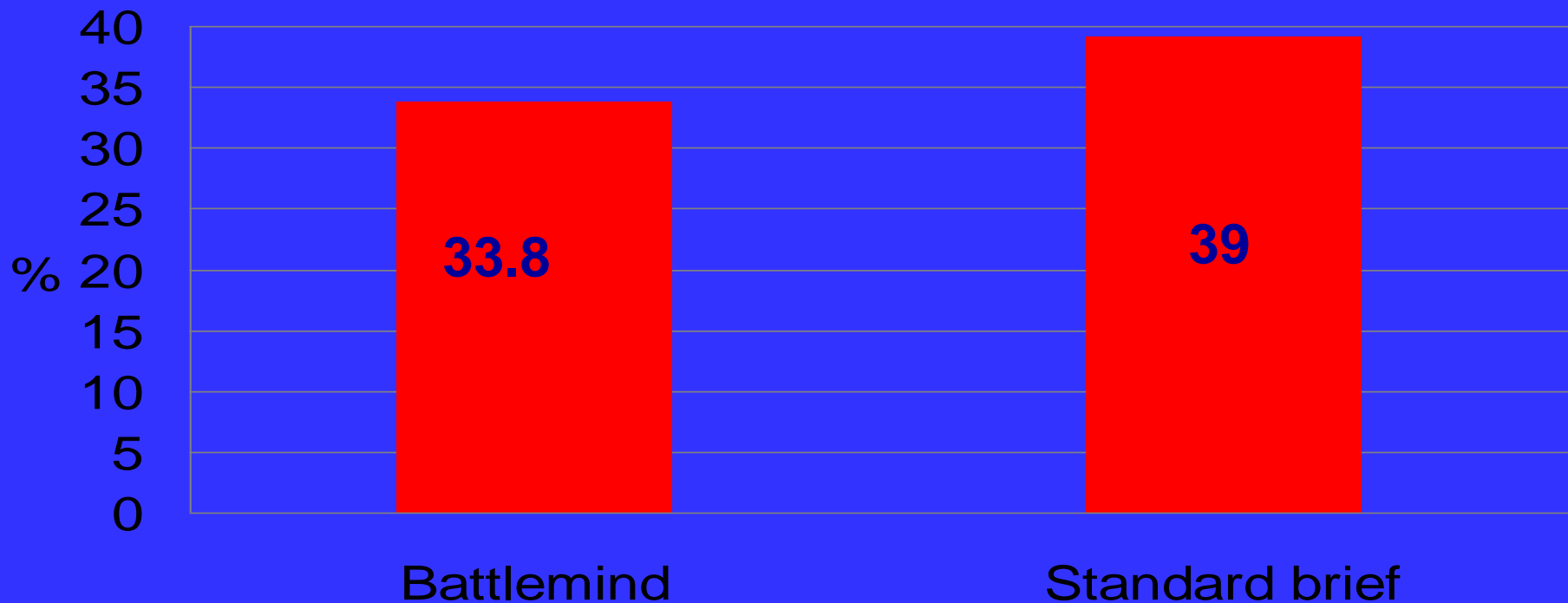
# Study design



# Results: Probable PTSD – ‘cases’ (n=~1600)

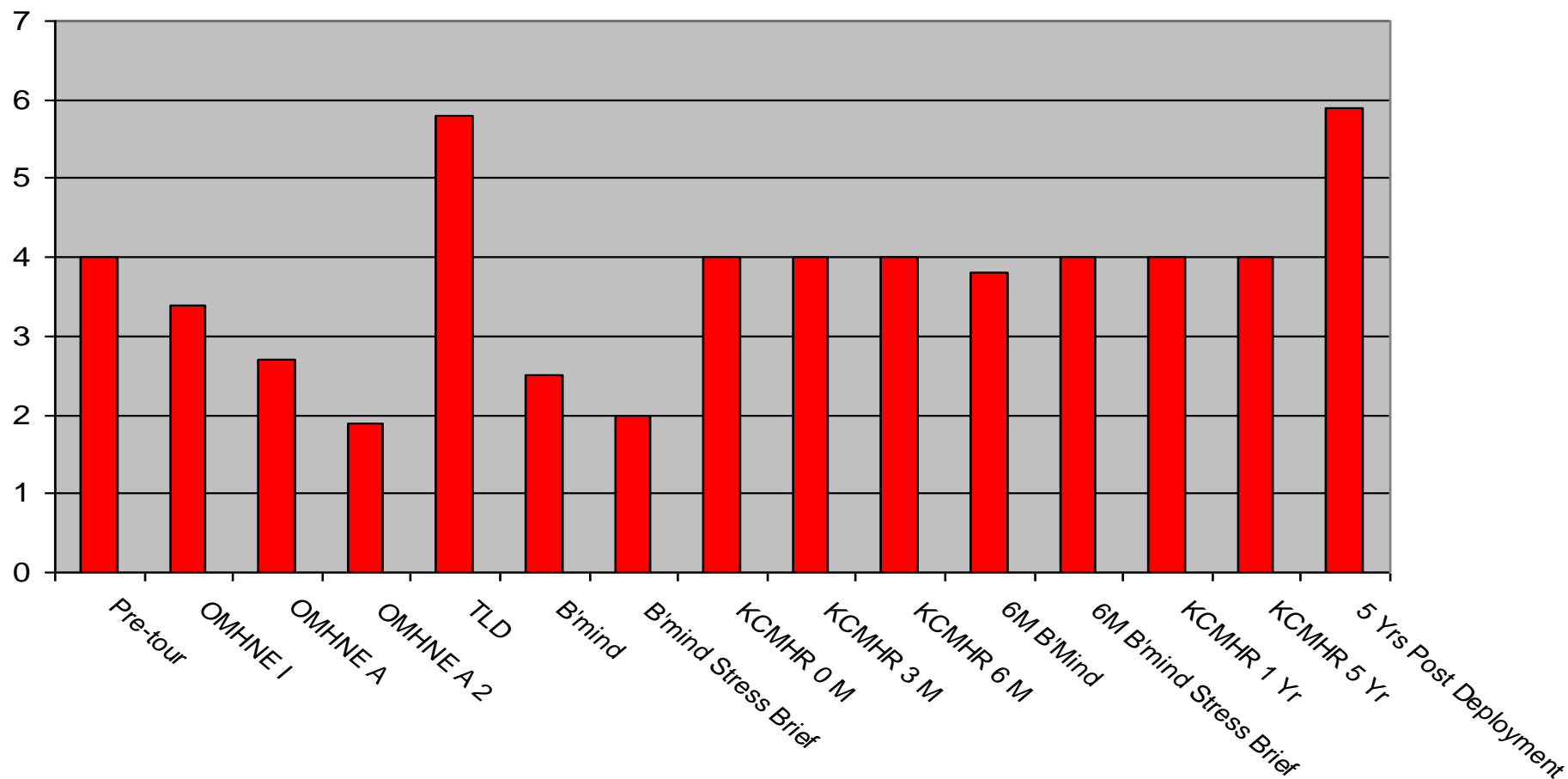


# Results: Alcohol Binge drinking (12+ units) at least weekly at follow-up

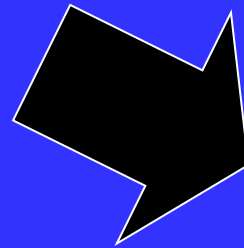
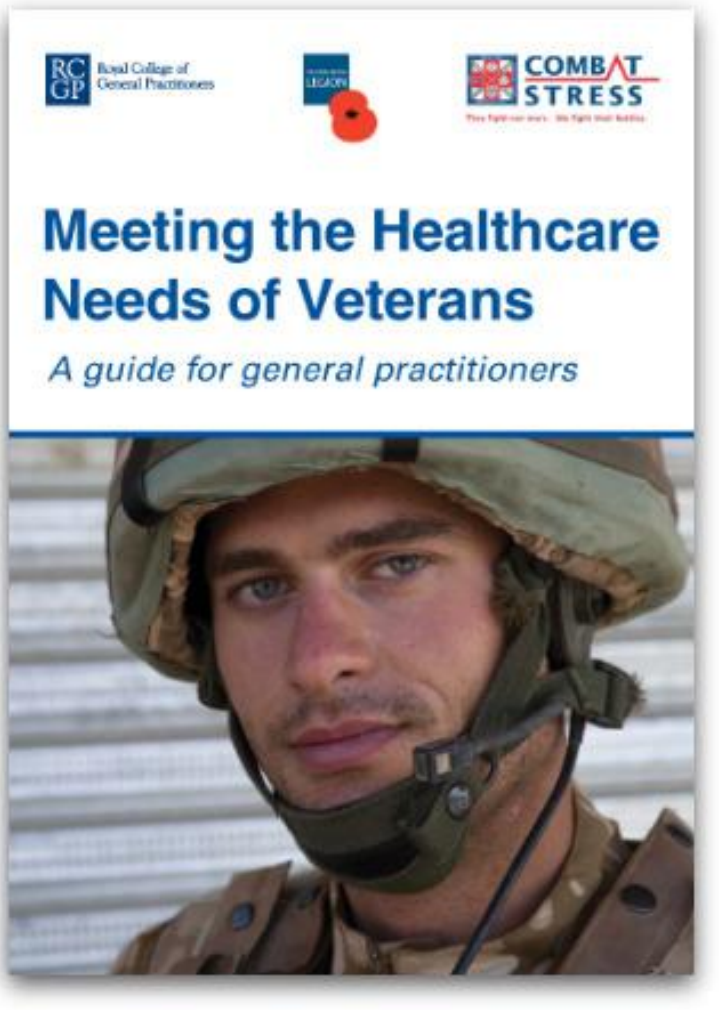


Fully adjusted OR 0.73 (0.58 – 0.92)  $p=0.006$

# What Happens Probable PTSD Rates Over Time – in relation to deployment?



# After Service



**Veterans**

**Reserves Mental Health  
Programme**

**Veterans care**

# Reserves Mental Health Programme (RMHP) Treatment Outcomes

- Accepts demobilised reservists deployed since 2003
- Referrals from GP and Self-referrals
- Based in RTMC Chilwell
- Nurse led assessments
- Supported by Consultant Psychiatrists & other MH Staff in DCMHs (co-ordinated treatment effort)

# RMHP Illness Categories

Diagnosis	n (%)	No Tx	Tx
<i>Depressive Episode</i>	33 (37)	4 (19)	29 (43)
<i>Adjustment Disorder</i>	25 (28)	7 (33)	18 (27)
<i>Probable PTSD</i>	12 (14)	2 (10)	10 (15)
<i>No Psychiatric Problem Diagnosed</i>	10 (8)	6 (28)	1 (2)
Anxiety Disorder	3 (3)	1 (5)	2 (3)
Mixed Anxiety and Depression	2 (2)	1 (5)	1 (2)
Alcohol Related Disorder	1 (1)	0	1 (2)
Personality Change after Catastrophic Incident	1 (1)	0	1 (2)
Psychotic Episode	1 (1)	0	1 (2)
Post Concussion Syndrome	1 (1)	0	1 (2)
Total	89	21	67

# RMHP Outcomes

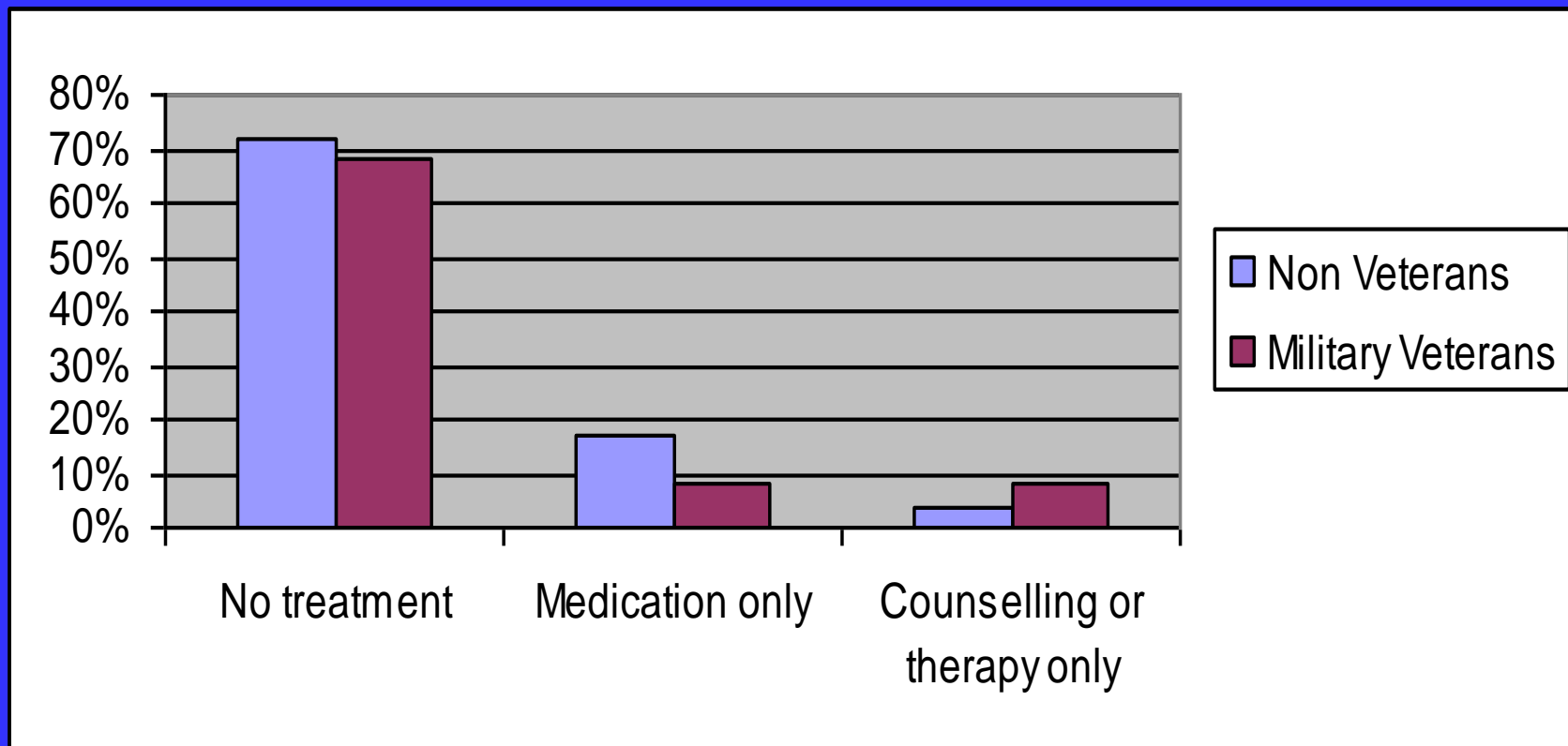
Occupational Outcome	n (%)	% of Treatment Completers (n=47)
Fully Fit	36 (66)	77%
Fit With Some Limitations	4 (7)	9%
Medical Discharge	7 (16)	15%
Temporary Medical Category	8 (15)	

- Most get better
- Not used very much (in spite of advertising)

# Adult Psychiatric Morbidity Survey (APMS)

- 257 post national service Veterans aged 16–64 years & 504 age and sex matched non-Veterans
- Male Veterans – more childhood adversity & major trauma in adulthood
- Females Veterans – more suicidal thoughts
- Early service leavers (<4 years service) – more heavy drinking - suicidal thoughts - self-harm compared to longer serving Veterans
- But – No association between any measure of mental health except violent behaviour and veteran status in males - therefore - Veterans are no more ill

# Help seeking for PTSD (APMS)



**Most Veterans with PTSD do not get treatment...but nor do non Veterans**

## Official: 2,500 ex-servicemen are in prison

Nearly 2,500 ex-servicemen are in prison in England and Wales, official figures show for the first time.

By Christopher Hope (<http://www.telegraph.co.uk/journalists/christopher-hope/>), Whitehall Editor

guardian.co.uk

## Revealed: the hidden army in UK prisons

More veterans in justice system than soldiers serving in Afghanistan - study

Alan Travis, home affairs editor  
[guardian.co.uk](http://guardian.co.uk), Thursday 24 September 2009

From The Times  
September 25, 2009

## Number of military veterans in jail 'has more than doubled in six years'

Richard Ford, Home Correspondent

The proportion of veterans in the prison population has more than doubled in six years, according to a report published today highlighting the hidden cost of recent military action.

About 12,000 veterans are on probation or parole, representing 6 per cent of the total, while 8,500 are in prison, representing 8.5 per cent of the jail population, according to the report by the National Association of Probation Officers (Napo).

## Twenty thousand servicemen in prison, on probation or parole

More than 20,000 former servicemen are in prison or on probation or parole, double the total British personnel in Afghanistan, according to a new survey.

By Chris Irvine (<http://www.telegraph.co.uk/journalists/chris-irvine/>)  
Published: 7:00AM BST 25 Sep 2009

# The truth...

- DASA (2010) - 3.5%
- 30% less than expected
- But ... twice as likely to be convicted for a sexual offence (overall numbers still low)
- Detail on [www.dasa.mod.uk](http://www.dasa.mod.uk)

# Suicide in the still serving AF population, males, 1984-2011

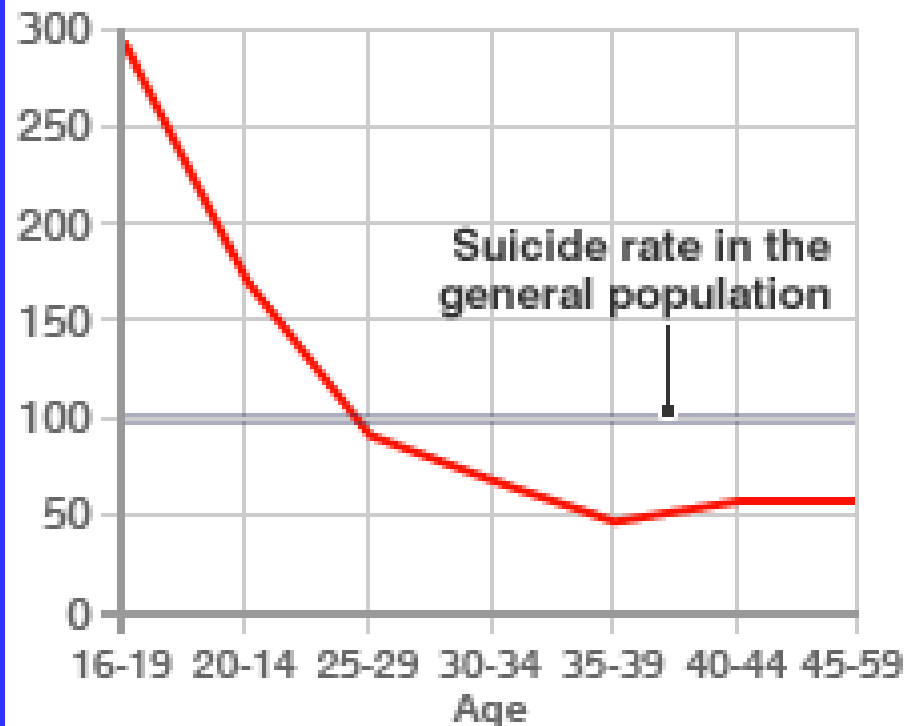
Age group (years)	Service					
	Navy		Army		RAF	
	N	SMR (95% CI)	N	SMR (95% CI)	N	SMR (95% CI)
<20	7	60 (24-123)	<b>71</b>	<b>146 (116-184)</b>	6	66 (24-143)
20-24	30	46 (32-66)	158	81 (69-94)	34	47 (34-66)
25-29	23	37 (24-56)	88	53 (43-65)	41	48 (35-65)
30-34	22	42 (26-63)	57	48 (37-62)	32	46 (32-65)
35-39	24	50 (32-74)	47	49 (37-65)	21	34 (21-52)
40-44	12	52 (27-91)	21	54 (34-83)	18	45 (27-71)
45-49	5	42 (14-98)	8	49 (21-97)	5	23 (8-54)
50+	-		-		3	22 (5-64)

# Suicide after Leaving the UK Armed Forces —A Cohort Study

Navneet Kapur<sup>1\*</sup>, David While<sup>1</sup>, Nick Blatchley<sup>2</sup>, Isabelle Bray<sup>2</sup>, Kate Harrison<sup>2</sup>

## RISK OF SUICIDE AFTER LEAVING UK ARMED FORCES

Risk (higher number equals higher risk)



SOURCE: Centre for Suicide Prevention

# And to the future...

inc the 2010 Murrison Report (Fighting Fit)

- Enhanced Mental Health Assessments during medicals
- RCT of post deployment screening
- Access to DMHS for 6 months post discharge
- Social networks MH pilot
- Veteran's Information Service
- More MH trust veteran workers

# Summary

- Prevalence of military PTSD is relatively low and stable over time
- Prevalence of Common Mental Disorders is about the same as in the general population
- However, some groups do have poorer MH (combat, reservists, early service leavers) and alcohol misuse is an issue
- There's a lot of work that has gone on and a lot more yet to some

# And of course

You shouldn't believe everything you read!



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in 1996.

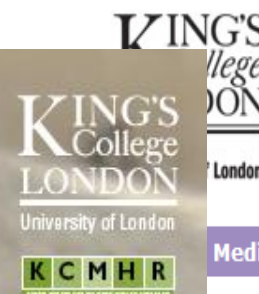
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King's Centre for Military Health Research:  
*A fifteen year report*

What has been achieved by fifteen years of research into the health of the UK Armed Forces?

# Any Questions?- Fire Away!



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