

# Cognitive Impairment

## Introduction

RBL has brought together existing evidence to build a comprehensive picture of need in the UK Armed Forces community over recent years, and highlighted important gaps in our understanding of demographics, needs, and outcomes.

In 2025, we commissioned the *King's Centre for Military Health Research (KCMHR)* to analyse data from their large-scale, long-running Health and Wellbeing study, to help fill gaps in understanding about physical health, cognitive impairment and financial wellbeing.

The KCMHR cohort study has tracked people who served in the UK Armed Forces during the Iraq- and Afghanistan-era, for over twenty years.

This analysis draws on data from more than 3,000 Regular serving and ex-serving personnel (veterans) from phase four of the study (2022/23).



**References to serving or ex-serving Regular personnel relate only to those participating in the cohort study.** While the findings should not be taken to be representative of all serving personnel or veterans, they provide vital new insight into the needs of an important part of the Armed Forces community. These insights support RBL's ability to design effective services, influence policy, and advocate for meaningful change.

## What did we analyse?

KCMHR conducted an analysis to understand how many people were affected by these issues, and what factors were associated with experiencing them, *considering*:



**Demographics:** age, sex, relationship status, education level, (ethnicity and sexual orientation were considered but samples were too small for meaningful analysis).



**Military characteristics:** serving status, rank, branch of Service, deployment to Iraq/Afghanistan, role on deployment.

**Health factors:** using validated measures of probable Post Traumatic Stress Disorder (PTSD), CPTSD (complex PTSD), Common Mental Disorders (CMD), Mild Traumatic Brain Injury (mTBI) and alcohol misuse.

## Cohort Study – who took part?

**3,223** serving and ex-serving Regular personnel of whom **2,294** were ex-serving Regular personnel

|  | Male | Average age | Army | Deployed to Iraq and/or Afghanistan | NCO |
|-------------------------------------------------------------------------------------|------|-------------|------|-------------------------------------|-----|
| Serving and ex-serving Regulars                                                     | 90%  | 48 years    | 61%  | 63%                                 | 67% |
| Ex-serving Regulars only                                                            | 91%  | 50 years    | 60%  | 59%                                 | 67% |

## Probable cognitive impairment

Probable cognitive impairment refers to a deterioration in mental abilities beyond what would normally be expected with ageing. It can affect areas including memory, attention and concentration, reasoning and decision-making, and the ability to manage everyday tasks.

Probable cognitive impairment can reflect or be related to many different other health problems. For example, traumatic brain injury is a known risk factor for cognitive impairment and is more common among military personnel than the general population, while mental health problems such as depression have also been associated with cognitive impairment among ex-serving personnel. However, much of the existing research is US-focused and there is limited longitudinal evidence examining cognitive impairment over time.

### How was probable cognitive impairment measured?

Participants completed a one-time measure (IQCODE-16). Importantly, this is not a diagnostic test, but gives insight into how many people may be experiencing symptoms relating to, or caused by, cognitive impairment. The measure asks them to compare cognitive abilities in everyday activities with how they were 10 years earlier.

An average score of **3.3 or above** was used to identify probable cognitive impairment.

**Mean score:** < 3.3    ≥ 3.3\*

\*The IQCODE-16 (Informant Questionnaire on Cognitive Decline in the Elderly) was used as a self-report measure, not a diagnostic test. The ≥3.3 threshold is commonly used in older populations, but has also been tested in different age groups.

## How common was probable cognitive impairment?

**Among serving and ex-serving Regulars in the KCMHR cohort:** There was no statistically significant difference between serving and ex-serving Regulars, even when accounting for serving personnel's overall younger age profile.

**21%** experienced symptoms consistent with probable cognitive impairment

Serving Regulars  
**21%**

Ex-serving Regulars  
**22%**

## Key implications

Probable cognitive impairment was relatively common in the cohort, affecting around one in five serving and ex-serving Regulars.

Probable cognitive impairment was associated with lower social support and greater functional impairment, including difficulties with everyday activities and work.



Probable cognitive impairment was associated with a range of mental health, physical health, financial and trauma-related factors.

These findings provide important new UK evidence on an area where there is currently limited understanding, while highlighting the need for more research into long-term cognitive decline among serving and ex-serving personnel and how this may relate to dementia and future need.

## What factors were associated with probable cognitive impairment?

A range of mental and physical health, financial, trauma-related and psychosocial factors increased the odds of reporting probable cognitive impairment among ex-serving Regulars. Below, the darker boxes indicate factors that were more strongly associated with probable cognitive impairment.

### Risk factors for probable cognitive impairment were:

|                                                          |
|----------------------------------------------------------|
| Probable complex PTSD                                    |
| Probable PTSD                                            |
| Physical health problems                                 |
| Probable CMD                                             |
| Financially finding it difficult (v. living comfortably) |
| Financially just getting by (v. living comfortably)      |
| Drug use                                                 |
| Mild traumatic brain injury                              |
| Alcohol misuse                                           |
| Financially doing alright (v. living comfortably)        |
| Childhood adversity                                      |
| Single or ex-relationship (v. relationship)              |

### Probable cognitive impairment was associated with poorer social and functional outcomes.

Probable cognitive impairment increased the odds of participants experiencing a range of other problems:

|                                                    |
|----------------------------------------------------|
| Problems with social activities                    |
| Difficulty performing the work or other activities |
| Accomplished less than you would like              |
| Lower social support score                         |
| Limited in the kinds of work or other activities   |
| Cut down time spent on work or activities          |

### Earlier health problems were associated with later cognitive impairment:

The following risk factors measured at Phase 3 (2014-16) increased the odds of probable cognitive impairment at Phase 4 (2022-23):

|                                      |
|--------------------------------------|
| Phase 3: Physical health symptoms    |
| Phase 3: Mild traumatic brain injury |
| Phase 3: Probable PTSD               |
| Phase 3: Probable CMD                |
| Phase 3: Alcohol misuse              |

These findings strengthen the evidence base on the Armed Forces community, helping RBL and the wider sector better understand need and improve how policy and support is designed and delivered.

**If you are interested in exploring this research in more depth, please get in contact:**

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