



Information about Drinking for Ex-serving personnel: Development of a smartphone application (app) for alcohol monitoring

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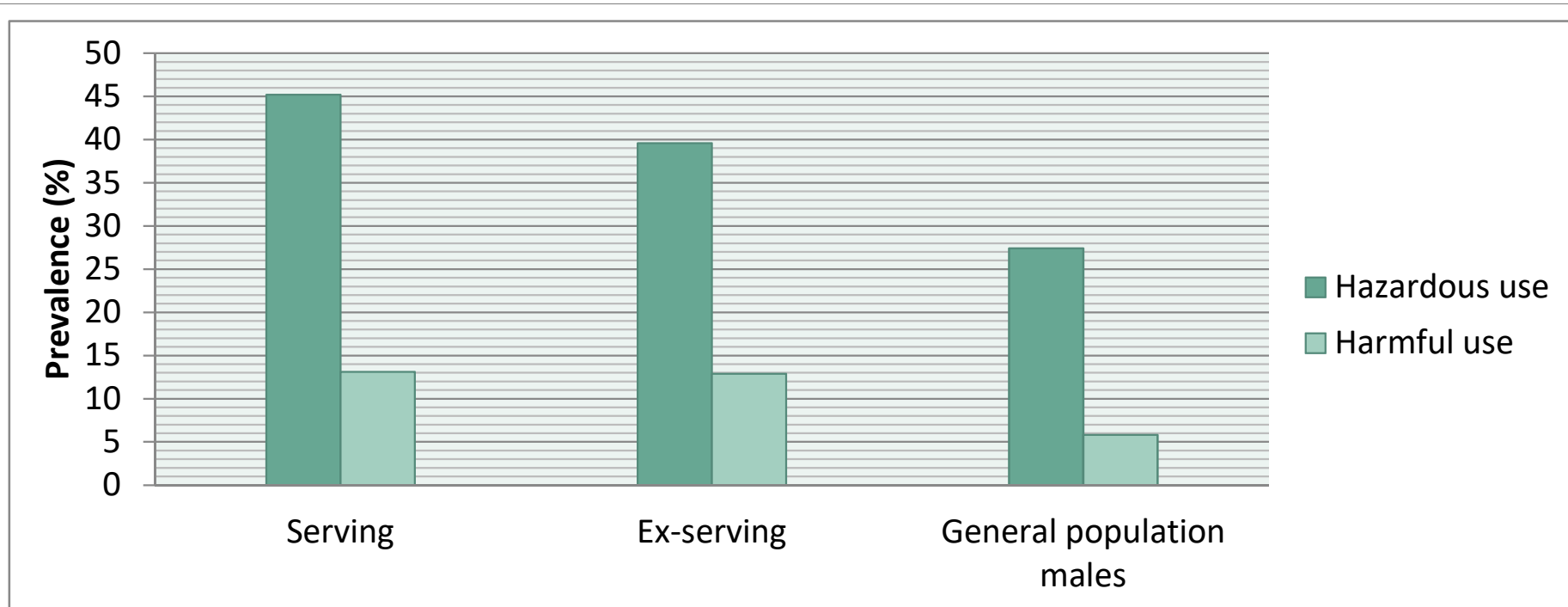
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<https://www.index-app.org>



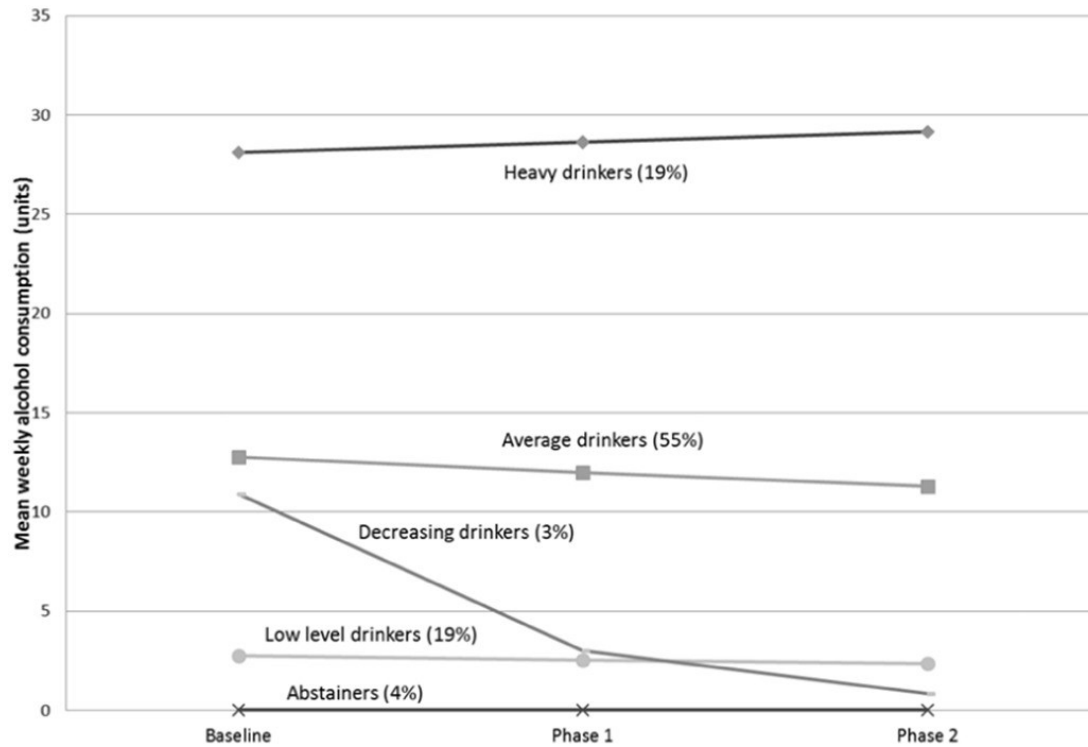
InDEX

Why target ex-serving personnel?



Fear et al. (2007) "Patterns of drinking in the UK Armed Forces"

Longer term patterns of alcohol use



Goodwin et al.
(2017)
“Trajectories of alcohol use in the UK military and associations with mental health”

Why might an electronic app be most suitable?

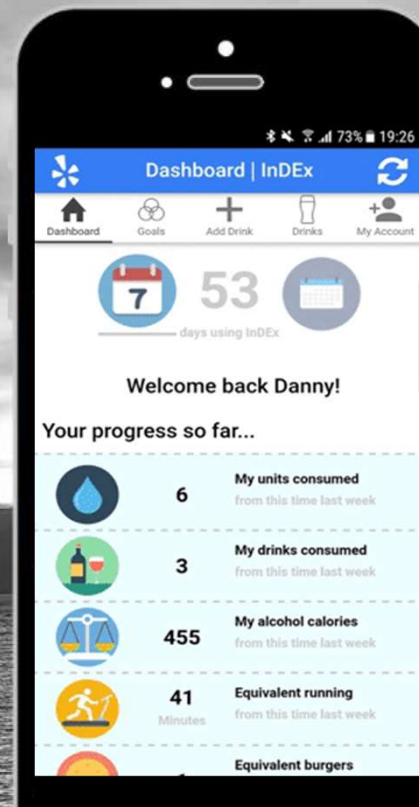
- Four out of five adults aged 18-44y in the UK own a mobile phone, 91% own a smart phone
 - 85 'checks' a day, downloading 2 apps a week (Deloitte, 2016, Global Mobile Consumer Survey 2016)
- Evidence that computer delivered alcohol interventions are effective in the general population (Black et al., 2016)
- We can combine this approach with personalised text messaging which has also been shown to be effective for behaviour change (Head et al., 2013)

Objectives

1.
 - To develop a tailored brief alcohol mobile phone app for ex-serving personnel
2.
 - To conduct a feasibility study to investigate the usability of this alcohol app in ex-serving personnel
3.
 - To carry out qualitative interviews to examine the acceptability of the alcohol app

InDEx

Feel better and save money by drinking less alcohol

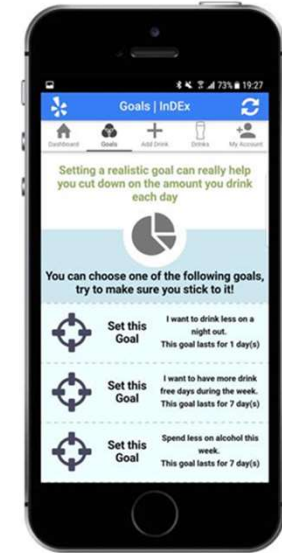


Development process

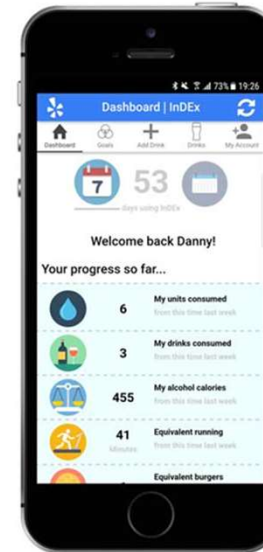
- Agile development methodology
- User-informed design – design, usability and functionality
- Expert users – language, content and presentation

Key modules of InDEx

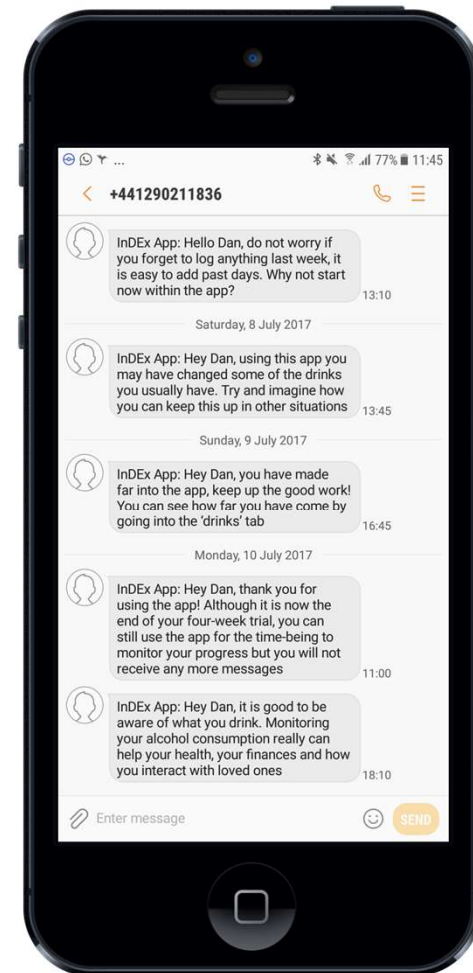
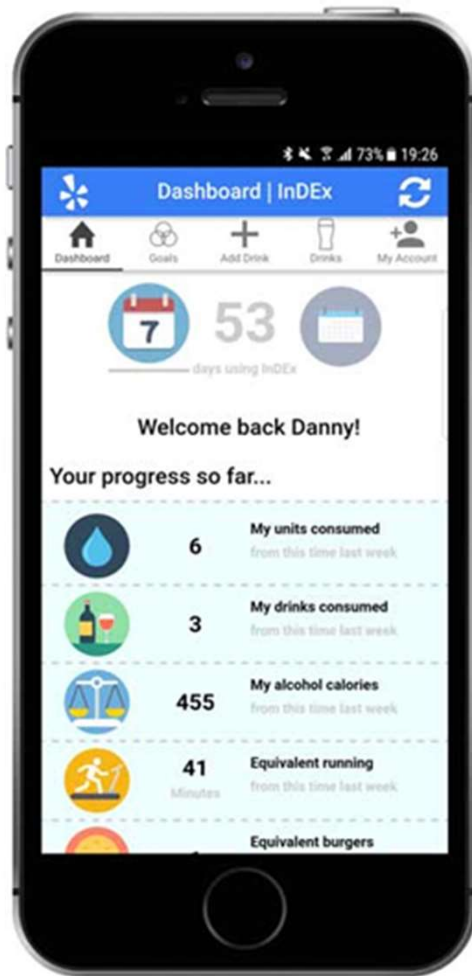
1. Assessment and normative feedback



2. Self monitoring



3. Goal setting and review



Feasibility Sample

- From the King's Centre for Military Health Research Health & Well-being Cohort
 - Only those with hazardous alcohol use were invited (AUDIT: 8-19)
- 150 individuals were contacted via email, 23% registered for InDEX
 - 27 male, 4 female
 - 5 (16.1%) were aged 25-39 years, 6 (19.6%) were aged 40-44, 6 (19.6%) were aged 45-49, 6 were aged 50-54 (19.6%) and 8 were aged 55-64 (15.8%)
 - 84% reported serving in the military for 12 years or more

The feasibility study – Results

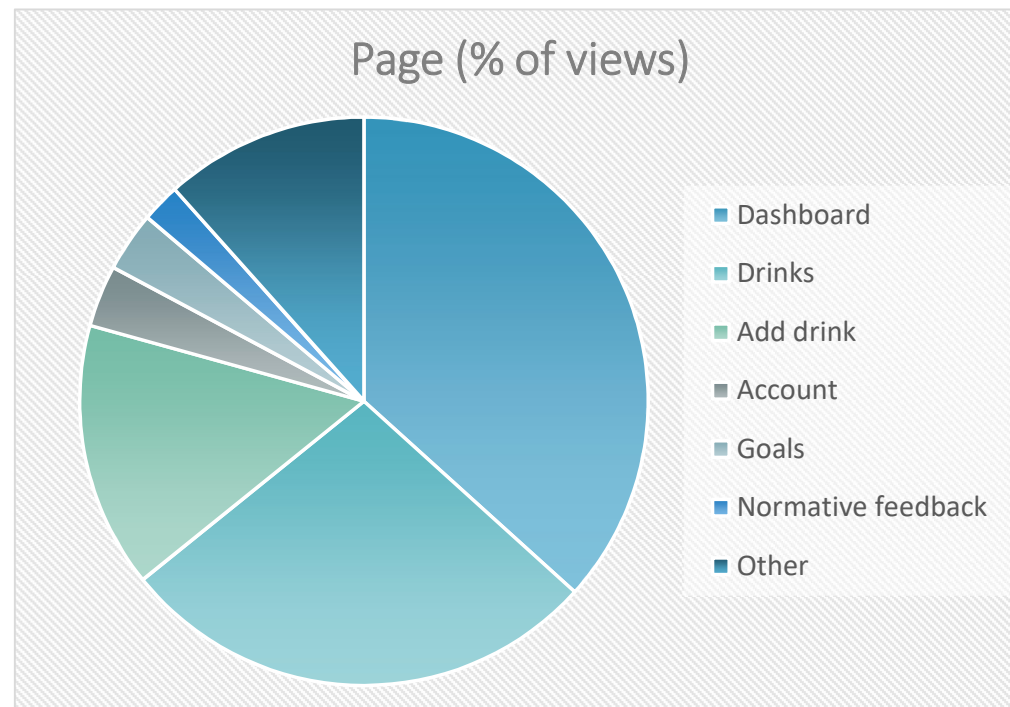
Indicator	Median	Interquartile Range
Drinking days	13	11-15
Drink free days	15	13-17
Units per drinking day	4.7	2.3-9.1
Units consumed	79.4	58.4-117.3
Alcoholic drinks per drinking day	2	1-4

Users remained active for 4 (IQR 3-4) weeks

The feasibility study – Weekly Changes

Indicator	Week 1 (n=31)	Week 2 (n=30)	Week 3 (n=29)	Week 4 (n=31)
Drinking days	4 (3-5)	3 (3-4)	3 (3-4)	3 (2-3)
Drink free days	3 (2-4)	4 (3-4)	4 (3-4)	4 (4-5)
Units per drinking day	5.6 (3.3-11.8)	6.5 (2.3-9.1)	4.54 (2.3-8.9)	4.7 (2-6.9)
Units consumed	22.9 (14.3-32.4)	20.4 (14.6-25)	18.1 (12.7-26.3)	15.9 (11.6-26.9)
Alcoholic drinks per drinking day	2 (2-4)	3 (1-4)	2 (1-4)	2 (1-4)
Binge drinking days per week	2 (1-3)	2 (1-2)	1 (0-2)	2 (1-2.5)

The feasibility study – Use of the app



Conclusions: Usability of InDEX

- Measures of engagement were encouraging across a 4-week period
- Most personnel used the app primarily for self-monitoring
 - Use of goal setting was limited
 - Related to perceived need to change drinking
- Potential to deliver InDEX on a larger scale to UK ex-serving personnel



InDEX



Source Code (standalone)

<https://github.com/DrDanL/index-app-public>

Try it live

<https://drdanl.github.io/index-app-public/www>

Pre-print JMIR mHealth (open peer review)

<https://preprints.jmir.org/preprint/10074>

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