APPENDIX

Alcohol abuse and dependence DSM-IV criteria

Alcohol abuse: A maladaptive pattern of alcohol use leading to clinically significant impairment or distress, as manifested by ≥1 of the following, occurring within a 12-month period:

- Recurrent alcohol use resulting in a failure to fulfil major obligations at work, school, or home.
- Recurrent alcohol use in situations in which it is physically hazardous (e.g., driving)
- Continued alcohol use despite persistent or recurrent social or interpersonal problems caused or exacerbated by the effects of alcohol.

Alcohol dependence: A maladaptive pattern of alcohol use leading to clinically significant impairment or distress, as manifested by ≥3 of the following at any time in the same 12-month period:

- Tolerance
- Withdrawal
- Alcohol is often taken in larger amounts or over a longer period than was intended
- A persistent desire or unsuccessful efforts to cut down or control alcohol use
- A great deal of time spent in activities necessary to obtain alcohol, use alcohol, or recover from its effects
- Important social, occupational, or recreational activities are given up or reduced because of alcohol use
- Use continues despite knowledge of a persistent or recurrent physical or psychological problem that is likely to have been caused or exacerbated by alcohol

Risk factors for hazardous alcohol drinking

We selected 41 potential risk factors, which are described in detail elsewere.[1] A summary of these is given below:

- Socio-demographic factors: (1) age, (2) gender, (3) marital status, (4) occupation, (5) employment status, (6) ethnicity, (7) nationality, (8) country of birth, (9) educational level, (10) income, (11) owner-occupier of their accommodation, (12) living alone or with others.
- Controls, demands and rewards for (13) paid and (14) unpaid work, using an adapted version of the job content instrument with 7 items each.[1,2]
- (15) Debt and financial strain by means of three questions with Likert responses:[3] 1) General financial strain: "how well would you say you are managing financially these days?" (4-Likert); 2) Basic financial strain: "how often does it happen that you do not have enough money to afford the kind of food or clothing you/your family should have?" (5-Likert); and 3) Coping with debt: "how much difficulty do you have in meeting the payments of household and other bills?" (6-Likert).
- (16) Physical and (17) mental well-being, assessed by the 12-item Short Form (SF-12)[4-5] and (18) a question on the presence of long-standing illness, disability or infirmity.
- (19) Anxiety disorders using the anxiety section of the Primary Care Evaluation of Mental Disorders (PRIME-MD).[6] The Spanish version of the PRIME-MD can classify patients who test positive for panic attack, generalized anxiety disorder and other anxiety disorders.[7]
- (20) A screen for lifetime depression based on the first two questions of the Composite International Diagnostic Interview (CIDI).[8]
- (21) Lifetime use of recreational drugs (CIDI).[9-10]
- Brief questions on the quality of (22) sexual and (23) emotional relationships with a partner, adapted from a standardized questionnaire.[11]
- (24) DSM-IV diagnosis of major depression in the preceding 6 months using the CIDI.[9-10]
- (25) A question on taking medication for anxiety, depression or stress.
- Childhood experiences of (26) physical, (27) emotional and/or (28) sexual abuse.[12]
- (29) Nature and strength of spiritual beliefs.[13]
- (30) Presence of serious physical or psychological disorder, or substance misuse problems, or any serious disability in persons who were close friends or relations of participants.
- (31) Difficulty getting on with people and maintaining close relationships, assessed using questions from a social functioning scale.[14]
- (32) History of serious psychological problems or (33) suicide in first-degree relatives.[15]
- (34) Satisfaction with the neighbourhood and (35) perceived safety inside/outside the home using questions from the Health Survey for England.[16]
- (36) Threatening events in the preceding 6 months using the List of Threatening Experiences Questionnaire.[17]
- (37) Experiences of discrimination in the preceding 6 months on grounds of gender, age, ethnicity, appearance, disability, or sexual orientation, using questions from a European study.[18]
- (38) Adequacy of social support from family and friends.[19]
- (39) Two questions about smoking habits.[20]
- (40) We asked whether participants had ever had problems with drinking too much alcohol or had ever received treatment for an alcohol problem.
- (41) From the AUDIT[21] we took out the AUDIT-C, which contains only three items on alcohol consumption.[22-23]

Management of clustering effect

To test the hierarchical data structure we used the likelihood-ratio test of the null model taking cumulative incidence of hazardous alcohol drinking at 12 months as the dependent variable and health centre as a random factor versus usual logistic regression [Chi2=11.49; p<0.0004]. The Intraclass Correlation Coefficient for Health Centre was 0.141 (95% Confidence Interval: 0.052-0.328). The likelihood-ratio test of the null model with the variable family physician as a random factor versus usual logistic regression was also significant [Chi2=3.55; p=0.0298]. The Intraclass Correlation Coefficient of the variable family physician was 0.118 (95% Confidence Interval: 0.036-0.327). We then checked the likelihood-ratio test of the null model with health centre and family physician as random factors versus the null model with only health centre [Chi2=0.00; p=0.9717]. We therefore decided to use multilevel logistic regression with health centre as the random component.

Table S1. Model to predict drop-out*.

Predictors	OR	95% CI	P
Constant	0.53	0.30 - 0.95	0.032
Province (Granada as reference)			
Saragossa	1.45	0.89 – 2.34	0.135
Madrid	1.62	0.99 – 2.64	0.053
Logroño (La Rioja)	0.96	0.60 – 1.56	0.876
Majorca	3.09	1.90 – 5.03	<0.001
Las Palmas	2.07	1.16– 3.70	0.013
Gender (Female as reference)			
Male	1.36	1.45 – 1.61	<0.001
Age (range 18-75 years)	0.986	0.978 – 0.994	0.001
Country of birth (Spain as reference)			
Other	1.34	0.96 – 1.87	0.082
Marital status (Married as reference)			
Separated	1.08	0.78 – 1.50	0.652
Widowed	1.02	0.75 – 1.37	0.921
Divorced	1.33	0.84 – 2.11	0.223
Single	1.15	0.92 – 1.42	0.221
Employment (Employed as reference)			
Unemployed	1.05	0.79 – 1.41	0.729
Retired	1.27	0.98 – 1.65	0.076
Unable to work	0.94	0.70 – 1.27	0.693
Looking after family	0.88	0.70 – 1.11	0.292
Full-time student	0.61	0.37 – 1.03	0.063
Education (Beyond secondary as reference)			
Secondary education	1.09	0.84 – 1.42	0.520
Primary education	1.43	1.11 – 1.84	0.005
Incomplete primary education or illiterate	1.81	1.33 – 2.47	<0.001
Housing status (Mortgage as reference)			
Owned and paid	0.88	0.74 – 1.05	0.169
Rented	1.57	1.21 – 2.04	0.001
Other	1.08	0.71 – 1.64	0.716
Enough money to afford food or clothing (Always as reference)			
Often	1.01	0.83 – 1.24	0.901
Sometimes	0.95	0.74 – 1.20	0.640
Seldom	2.14	1.13 – 4.06	0.020
Never	0.93	0.44 – 1.97	0.854
Satisfaction with the area where you live (Very satisfied as reference)			
Satisfied	1.14	0.96 – 1.36	0.142
Neither satisfied nor dissatisfied	1.15	0.91 – 1.48	0.253
Dissatisfied	1.72	1.44 – 2.59	0.009
Very dissatisfied	1.20	0.76 – 1.88	0.441
Cigarette consumption per day (Non-smoking as reference)			
<10	1.25	0.98 – 1.60	0.072
10-20	1.10	0.87 – 1.39	0.426
>20	0.97	0.69 – 1.37	0.876
Mental health (SF-12, range= 0-100)	0.994	0.989 – 1.001	0.127

* *Multi-level logistic regression with Health Centre and Family Physician as random components.*

Table S2. Weighted and unweighted predictAL-10* model by the inverse probability of remaining in the follow-up to 12 months (IPW).

Risk factors	[a]PredictAL-10 adjusted for IPW			[b]PredictAL-10 not adjusted for IPW		
	OR	95% C.I.	p	OR	95% C.I.	p
Constant	0.0008	0.0001 - 0.0071	<0.001	0.0011	0.0001 – 0.0093	<0.001
Province						
Granada (Reference)	1.0			1.0		
Saragossa	2.02	0.49 – 8.37	0.333	2.10	0.67 – 6.58	0.201
Madrid	0.72	0.15 – 3.56	0.690	0.80	0.19 – 3.37	0.764
Logroño (La Rioja)	7.12	2.05 – 24.79	0.002	6.10	2.05 – 18.13	0.001
Majorca	5.32	1.11 – 25.62	0.037	5.12	1.57 – 16.76	0.007
Las Palmas	3.16	0.61 – 16.28	0.170	3.72	0.95 – 14.63	0.060
Gender						
Female (Reference)	1.0			1.0		
Male	3.20	1.29 – 7.91	0.012	3.51	2.02 – 6.08	<0.001
Age (range 18-75 years)	0.993	0.972 – 1.015	0.539	0.994	0.963 – 1.025	0.699
AUDIT-C	2.51	1.63 – 3.85	<0.001	2.42	1.59 – 3.71	<0.001
AUDIT-C*Age	0.991	0.984 – 0.999	0.045	0.992	0.983 – 1.001	0.076
Cigarette consumption per day						
Non-smoking (Reference)	1.0					
<10	2.39	1.21 – 4.73	0.012	2.13	1.01 – 4.50	0.046
10-20	1.28	0.51 – 3.18	0.600	1.15	0.51 – 2.60	0.729
>20	3.48	1.31 – 9.27	0.013	3.84	1.74 – 8.50	0.001
Financial strain						
Living comfortably (Reference)	1.0			1.0		
Doing alright	1.94	0.48 – 7.82	0.351	1.54	0.45 – 5.24	0.490
Finding it difficult or very difficult	4.19	0.98 – 17.84	0.053	3.19	0.86 – 11.77	0.082
Ever treated for alcohol problems						
No (Reference)	1.0					
Yes	11.77	1.98 – 70.05	0.007	10.52	2.23 – 49.67	0.003
Sexual abuse in childhood						
No (never) (Reference)	1.0			1.0		
Yes (rarely, sometimes, often, frequently)	5.07	1.71 – 15.09	0.003	4.72	1.65 – 13.45	0.004

* Multi-level logistic regression with health centre as a random component. [a] C-Index = 0.886 (95% CI=0.854-0.918).
[b] C-index = 0.886 (95% C.I = 0.853 - 0.920). Test for the difference: chi2 (degree of freedom:1)=0.15; P= 0.691.

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