

This dataset is created based on Gen 3/Omni 2/NOS FHS participants' **self-reported** information from Exam 1 to Exam 3.

The following is the timeline for related questions found in individual FHS core exams (N = No, Y = Yes):

FHS Core Exam	1	2	3
Antidepressants	Y	Y	Y
Anxiolytics	Y	Y	Y
Hypnotics	Y	Y	Y

- For all Gen 3/NOS/Omni 2 medication data, they are ATC (Anatomical Therapeutic Chemical Classification System) -coded. For in depth information, refer to appendix.

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ID

IDTYPE

Variable name: idtype

Description: Framingham Heart Study cohort identifier

Code or Value	Description
2	New Offspring Spouse Cohort
3	Generation 3 Cohort
72	Omni 2 Cohort

ID

Variable name: id

Description: Framingham Heart Study participant identifier within cohort

IDTYPE and ID must be used together to form a unique study participant identification number or use variable “framid” instead

Code or Value	Description
0 – 9999	Range of values

Note: To preserve confidentiality, the exact range for the ID is not reflected in the coding manual.

FRAMID

Variable name: Framid

Description: Framingham ID assigned to each participant

Code or Value	Description
00000 – 99999	Gen 1

Note: To preserve confidentiality, the exact range for the ID is not reflected in the coding manual.

Antidepressants

ANTIDEPRESSANTS_CORE1

Variable name: antidepressants_core1

Description: Interim history of antidepressant medication use in exam 1

Code or Value	Description
0	No antidepressant usage
1	Antidepressant usage
.	Did not attend exam/Unknown

Note: This variable is based on ATC coded datasets. Refer to appendix/R code for more information.

ANTIDEPRESSANTS_CORE2

Variable name: antidepressants_core2

Description: Interim history of antidepressant medication use in exam 2

Code or Value	Description
0	No antidepressant usage
1	Antidepressant usage
.	Did not attend exam/Unknown

Note: This variable is based on ATC coded datasets. Refer to appendix/R code for more information.

ANTIDEPRESSANTS_CORE3

Variable name: antidepressants_core3

Description: Interim history of antidepressant medication use in exam 3

Code or Value	Description
0	No antidepressant usage
1	Antidepressant usage
.	Did not attend exam/Unknown

Note: This variable is based on ATC coded datasets. Refer to appendix/R code for more information.

Depression Related Information

CDI_DEPRESSION_CORE1

Variable name: cdi_depression_core1

Description: Clinical diagnostic impression: Depression in exam 1

Code or Value	Description
0	No clinical diagnostic impression for depression
1	Clinical diagnostic impression for depression
.	Did not attend exam

Note: This variable is based on the variable G3A426 in FHS core exam 1 (Gen 3):

CDI – DEPRESSION

0 – NO

1 – YES

2 – MAYBE

. – UNKNOWN

Values 0 and 2 are recoded as 0; 1 is recoded as 1

The response of “.” as well as participants who did not attend exam are coded as .

CDI_DEPRESSION_CORE2

Variable name: cdi_depression_core2

Description: Clinical diagnostic impression: Depression in exam 2

Code or Value	Description
0	No clinical diagnostic impression for depression
1	Clinical diagnostic impression for depression
.	Did not attend exam

Note: This variable is based on the variable G3B0448 in FHS core exam 2 (Gen 3):

CDI – DEPRESSION

0 – NO

1 – YES

2 – MAYBE

. – UNKNOWN

Values 0 and 2 are recoded as 0; 1 is recoded as 1

The response of “.” as well as participants who did not attend exam are coded as .

CDI_DEPRESSION_CORE3

Variable name: cdi_depression_core3

Depression Related Information

Description: Clinical diagnostic impression: Depression in exam 3

Code or Value	Description
0	No clinical diagnostic impression for depression
1	Clinical diagnostic impression for depression
.	Did not attend exam

Note: This variable is based on the variable G3C0639 in FHS core exam 3 (Gen 3):

CDI – DEPRESSION

0 – NO

1 – YES

2 – MAYBE

. – UNKNOWN

Values 0 and 2 are recoded as 0; 1 is recoded as 1

The response of “.” as well as participants who did not attend exam are coded as .

DEPRESSION_CORE1

Variable name: depression_core1

Description: Derived variable for depression in exam 1, based on anti-depressant medications and clinical diagnostic impression for exam 1

Code or Value	Description
0	No depression
1	Depression present
.	Did not attend exam/Unknown

Note: This variable is based on the variable antidepressants_core1 and CDI_depression_core1 in FHS core exam 1 (Gen 3). Refer to appendix/R code for more information.

DEPRESSION_CORE2

Variable name: depression_core2

Description: Derived variable for depression in exam 2, based on anti-depressant medications and clinical diagnostic impression for exam 2

Code or Value	Description
0	No depression
1	Depression present
.	Did not attend exam/Unknown

Depression Related Information

Note: This variable is based on the variable antidepressants_core2 and CDI_depression_core2 in FHS core exam 2 (Gen 3). Refer to appendix/R code for more information.

DEPRESSION_CORE3

Variable name: depression_core3

Description: Derived variable for depression in exam 3, based on anti-depressant medications and clinical diagnostic impression for exam 3

Code or Value	Description
0	No depression
1	Depression present
.	Did not attend exam/Unknown

Note: This variable is based on the variable antidepressants_core3 and CDI_depression_core3 in FHS core exam 2 (Gen 3). Refer to appendix/R code for more information.

ANXIOLYTICS_CORE1**Variable name:** anxiolytics_core1**Description:** Interim history of anti-anxiety medication use in exam 1

Code or Value	Description
0	No anti-anxiety medication usage
1	Anti-anxiety medication usage
.	Did not attend exam/Unknown

Note: This variable is based on ATC coded datasets. Refer to appendix/R code for more information.

ANXIOLYTICS_CORE2**Variable name:** anxiolytics_core2**Description:** Interim history of anti-anxiety medication use in exam 2

Code or Value	Description
0	No anti-anxiety medication usage
1	Anti-anxiety medication usage
.	Did not attend exam/Unknown

Note: This variable is based on ATC coded datasets. Refer to appendix/R code for more information.

ANXIOLYTICS_CORE3**Variable name:** anxiolytics_core3**Description:** Interim history of anti-anxiety medication use in exam 3

Code or Value	Description
0	No anti-anxiety medication usage
1	Anti-anxiety medication usage
.	Did not attend exam/Unknown

Note: This variable is based on ATC coded datasets. Refer to appendix/R code for more information.

CDI_ANXIETY_CORE1**Variable name:** cdi_anxiety_core1**Description:** Clinical diagnostic impression: Anxiety in exam 1

Code or Value	Description
0	No clinical diagnostic impression for anxiety
1	Clinical diagnostic impression for anxiety
.	Did not attend exam

Note: This variable is based on the variable G3A427 in FHS core exam 1 (Gen 3):

CDI – ANXIETY

0 – NO

1 – YES

2 – MAYBE

. – UNKNOWN

Values 0 and 2 are recoded as 0; 1 is recoded as 1

The response of “.” as well as participants who did not attend exam are coded as .

CDI_ANXIETY_CORE2**Variable name:** cdi_anxiety_core2**Description:** Clinical diagnostic impression: Anxiety in exam 2

Code or Value	Description
0	No clinical diagnostic impression for anxiety
1	Clinical diagnostic impression for anxiety
.	Did not attend exam

Note: This variable is based on the variable G3B0449 in FHS core exam 2 (Gen 3):

CDI – ANXIETY

0 – NO

1 – YES

2 – MAYBE

. – UNKNOWN

Values 0 and 2 are recoded as 0; 1 is recoded as 1

The response of “.” as well as participants who did not attend exam are coded as .

CDI_ANXIETY_CORE3**Variable name:** cdi_anxiety_core3**Description:** Clinical diagnostic impression: Anxiety in exam 3

Code or Value	Description
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Anxiolytics

0	No clinical diagnostic impression for anxiety
1	Clinical diagnostic impression for anxiety
.	Did not attend exam

Note: This variable is based on the variable G3C0640 in FHS core exam 3 (Gen 3):

CDI – ANXIETY

0 – NO

1 – YES

2 – MAYBE

. – UNKNOWN

Values 0 and 2 are recoded as 0; 1 is recoded as 1

The response of “.” as well as participants who did not attend exam are coded as .

ANXIETY_CORE1

Variable name: anxiety_core1

Description: Derived variable for anxiety in exam 1, based on anxiolytic medications and clinical diagnostic impression for exam 1

Code or Value	Description
0	No depression
1	Depression present
.	Did not attend exam/Unknown

Note: This variable is based on the variable anxiolytics_core1 and CDI_anxiety_core1 in FHS core exam 1 (Gen 3). Refer to appendix/R code for more information.

ANXIETY_CORE2

Variable name: anxiety_core2

Description: Derived variable for anxiety in exam 2, based on anxiolytic medications and clinical diagnostic impression for exam 2

Code or Value	Description
0	No depression
1	Depression present
.	Did not attend exam/Unknown

Note: This variable is based on the variable anxiolytics_core2 and CDI_anxiety_core2 in FHS core exam 2 (Gen 3). Refer to appendix/R code for more information.

ANXIETY_CORE3

Variable name: anxiety_core3

Description: Derived variable for anxiety in exam 3, based on anxiolytic medications and clinical diagnostic impression for exam 3

Code or Value	Description
0	No depression
1	Depression present
.	Did not attend exam/Unknown

Note: This variable is based on the variable anxiolytics_core3 and CDI_anxiety_core3 in FHS core exam 3 (Gen 3). Refer to appendix/R code for more information.

Hypnotics

HYPNOTICS_CORE1

Variable name: hypnotics_core1

Description: Interim history of hypnotic medication (sleeping pill) use in exam 1

Code or Value	Description
0	No hypnotic medication usage
1	Hypnotic medication usage
.	Did not attend exam/Unknown

Note: This variable is based on ATC coded datasets. Refer to appendix/R code for more information.

HYPNOTICS_CORE2

Variable name: hypnotics_core2

Description: Interim history of hypnotic medication (sleeping pill) use in exam 2

Code or Value	Description
0	No hypnotic medication usage
1	Hypnotic medication usage
.	Did not attend exam/Unknown

Note: This variable is based on ATC coded datasets. Refer to appendix/R code for more information.

HYPNOTICS_CORE3

Variable name: hypnotics_core3

Description: Interim history of hypnotic medication (sleeping pill) use in exam 3

Code or Value	Description
0	No hypnotic medication usage
1	Hypnotic medication usage
.	Did not attend exam/Unknown

Note: This variable is based on ATC coded datasets. Refer to appendix/R code for more information.

Derived variable: Depression

The condition of depression with a suffix to indicate the core exam number – depression_core – is derived based on two variables:

Antidepressant (antidepressants_core): Interim history of antidepressant medication use

- 0 – No antidepressant usage
- 1 – Antidepressant usage
- . – Did not attend exam/Unknown

CDI (cdi_depression_core): Clinical diagnostic impression

- 0 – No clinical diagnostic impression for depression
- 1 – Clinical diagnostic impression for depression
- . – Did not attend exam/Unknown

EXAMS 1-3

Logic programming:

Antidepressant	CDI	Depression
1	1	1
1	0	1
0	1	0
0	0	0
.	1	1
.	0	0
1	.	1
0	.	0
.	.	.

Derived variable: Anxiety

The condition of depression with a suffix to indicate the core exam number – anxiety_core – is derived based on two variables:

Anxiolytics (anxiolytics_core): Interim history of antidepressant medication use

- 0 – No anxiolytic usage
- 1 – Anxiolytic usage
- . – Did not attend exam/Unknown

CDI (cdi_anxiety_core): Clinical diagnostic impression

- 0 – No clinical diagnostic impression for anxiety
- 1 – Clinical diagnostic impression for anxiety
- . – Did not attend exam/Unknown

EXAMS 1-3

Logic programming:

Anxiolytic	CDI	Anxiety
1	1	1
1	0	1
0	1	0
0	0	0
.	1	1
.	0	0
1	.	1
0	.	0
.	.	.

Appendix – Antidepressant ATC codes

ATC codes for antidepressants

ATC CODE FOR MEDICATION OR FIRST DRUG IN COMPOUND	MEDICATION	Notes
N06AA01	Desipramine	
N06AA02	Imipramine	
N06AA03	Imipramine oxide	
N06AA04	Clomipramine	
N06AA05	Opipramol	
N06AA06	Trimipramine	
N06AA07	Lofepramine	
N06AA08	Dibenzepin	
N06AA09	Amitriptyline	*tricyclics also used for pain/neuropathy
N06AA10	Nortriptyline	*tricyclics also used for pain/neuropathy
N06AA11	Protriptyline	
N06AA12	Doxepin	
N06AA13	Iprindole	
N06AA14	Melitracen	
N06AA15	Butriptyline	
N06AA16	Dosulepin	
N06AA17	Amoxapine	
N06AA18	Dimetacrine	
N06AA19	Amineptine	
N06AA21	Maprotiline	
N06AA23	Quinupramine	
N06AB02	Zimeldine	
N06AB03	Fluoxetine	
N06AB04	Citalopram	
N06AB05	Paroxetine	
N06AB06	Sertraline	
N06AB07	Alaproclate	
N06AB08	Fluvoxamine	
N06AB09	Etoferidone	
N06AB10	Escitalopram	
N06AF01	Isocarboxazid	
N06AF02	Nialamide	

Appendix – Antidepressant ATC codes

N06AF03	Phenelzine	
N06AF04	Tranlycypromine	
N06AF05	Iproniazide	
N06AF06	Iproclozide	
N06AG02	Moclobemide	
N06AG03	Toloxatone	
N06AX01	Oxitriptan	
N06AX02	Tryptophan	
N06AX03	Mianserin	
N06AX04	Nomifensine	
N06AX05	Trazodone	
N06AX06	Nefazodone	
N06AX07	Minaprine	
N06AX08	Bifemelane	
N06AX09	Viloxazine	
N06AX10	Oxaflozane	
N06AX11	Mirtazapine	
N06AX13	Medifoxamine	
N06AX14	Tianeptine	
N06AX15	Pivagabine	
N06AX16	Venlafaxine	
N06AX17	Milnacipran	
N06AX18	Reboxetine	
N06AX19	Gepirone	
N06AX21	Duloxetine	
N06AX22	Agomelatine	
N06AX23	Desvenlafaxine	
N06AX24	vilazodone	
N06AX25	Hyperici herba	*St Johns Wort
N06AX26	vortioxetine	
N06AX27	esketamine	
N06AX28	levomilnacipran	
N06AX29	brexanolone	

ATC codes for anxiolytics

ATC CODE FOR MEDICATION OR FIRST DRUG IN COMPOUND	MEDICATION	Notes
N05BA01	Diazepam	*=also used to treat seizures
N05BA02	Chlordiazepoxide	
N05BA03	Medazepam	
N05BA04	Oxazepam	
N05BA05	Potassium clorazepate	
N05BA06	Lorazepam	*=also used to treat seizures
N05BA07	Adinazolam	
N05BA08	Bromazepam	
N05BA09	Clobazam	*=also used to treat seizures
N05BA10	Ketazolam	
N05BA11	Prazepam	
N05BA12	Alprazolam	
N05BA13	Halazepam	
N05BA14	Pinazepam	
N05BA15	Camazepam	
N05BA16	Nordazepam	
N05BA17	Fludiazepam	
N05BA18	Ethyl loflazepate	
N05BA19	Etizolam	
N05BA21	Clotiazepam	
N05BA22	Cloxazolam	
N05BA23	Tofisopam	
N05BA56	Lorazepam, combinations	
N05BB01	Hydroxyzine	*Also used as Antihistamine
N05BB02	Captodiame	
N05BB51	Hydroxyzine, combinations	
N05BC01	Meprobamate	
N05BC03	Emylcamate	
N05BC04	Mebutamate	
N05BC51	Meprobamate, combinations	
N05BD01	Benzoctamine	
N05BE01	Buspirone	
N05BX01	Mephenoxalone	

Appendix – Anxiolytic ATC codes

N05BX02	Gedocarnil	
N05BX03	Etifoxine	
N05BX04	fabomotizole	
N05BX05	Lavandulae aetheroleum	*Lavender

ATC codes for hypnotics

ATC CODE FOR MEDICATION OR FIRST DRUG IN COMPOUND	MEDICATION	Notes
N05CA01	Pentobarbital	
N05CA02	Amobarbital	
N05CA03	Butobarbital	
N05CA04	Barbital	
N05CA05	Aprobarbital	
N05CA06	Secobarbital	
N05CA07	Talbutal	
N05CA08	Vinylbital	
N05CA09	Vinbarbital	
N05CA10	Cyclobarbital	
N05CA11	Heptabarbital	
N05CA12	Reposal	
N05CA15	Methohexital	
N05CA16	Hexobarbital	
N05CA19	Thiopental	
N05CA20	Etallobarbital	
N05CA21	Allobarbital	
N05CA22	Proxibarbal	
N05CB01	Combinations of barbiturates	*also used for migraine
N05CB02	Barbiturates in combination with other drugs	*also used for migraine
N05CC01	Chloral hydrate	
N05CC02	Chloralodol	
N05CC03	Acetylglycinamide chloral hydrate	
N05CC04	Dichloralphenazone	
N05CC05	Paraldehyde	
N05CD01	Flurazepam	
N05CD02	Nitrazepam	
N05CD03	Flunitrazepam	
N05CD04	Estazolam	
N05CD05	Triazolam	
N05CD06	Lormetazepam	
N05CD07	Temazepam	
N05CD08	Midazolam	*=also used to treat seizures

Appendix – Hypnotic ATC codes

N05CD09	Brotizolam	
N05CD10	Quazepam	
N05CD11	Loprazolam	
N05CD12	Doxefazepam	
N05CD13	Cinolazepam	
N05CD14	remimazolam	
N05CD15	nimetazepam	
N05CE01	Glutethimide	
N05CE02	Methypylon	
N05CE03	Pyrithyldione	
N05CF01	Zopiclone	
N05CF02	Zolpidem	
N05CF03	Zaleplon	
N05CF04	eszopiclone	
N05CH01	Melatonin	
N05CH02	ramelteon	
N05CH03	tasimelteon	
N05CM01	Methaqualone	
N05CM02	Clomethiazole	
N05CM03	Bromisoval	
N05CM04	Carbromal	
N05CM05	Scopolamine	*Also used for vertigo/Motion sickness
N05CM06	Propiomazine	
N05CM07	Triclofos	
N05CM08	Ethchlorvynol	
N05CM09	Valerian	
N05CM10	Hexapropymate	
N05CM11	Bromides	
N05CM12	Apronal	
N05CM13	Valnoctamide	
N05CM15	Methylpentynol	
N05CM16	Niapraxine	
N05CM17	Melatonin	
N05CM18	Dexmedetomidine	
N05CM19	suvorexant	
N05CM21	lemborexant	
N05CX01	Meprobamate, combinations	
N05CX02	Methaqualone, combinations	
N05CX03	Methylpentynol, combinations	

Appendix – Hypnotic ATC codes

N05CX04	Clomethiazole, combinations	
N05CX05	Emepronium, combinations	
N05CX06	Dipiperonylaminoethanol, combinations	