Australian Mental Health Care Classification

Grouper Application Version 1.1 User Guide

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IHPA

Australian Mental Health Care Classification – Grouper Application Version 1.1 – User Guide

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Introduction

The Australian Mental Health Care Classification (AMHCC) grouper application Version 1.1 has been developed by Independent Hospital Pricing Authority (IHPA) to assist state and territory health departments and hospitals to group hospital mental health care data to the AMHCC Version 1.0 classification system.

This user guide provides details of the AMHCC grouper application, including the input and output data specifications, and a step by step guide to group data.

This application provides the ability to group files in CSV format interactively. The grouping results are output as a CSV file and can also be viewed in the application.

Appendix 1 lists the AMHCC end class codes and descriptions. This list can be used to label the grouper output values.

Contact us

For more information, contact:

Data Acquisition Section
Independent Hospital Pricing Authority
Level 12, 1 Oxford Street
DARLINGHURST NSW 2000

Phone: (02) 8215 1130

Fax: (02) 8215 1111

Input data specifications

The input file for the grouper application is required to be in CSV (ie. comma delimited) format.

It is expected that the input CSV file contains phase of mental health care records. The AMHCC V1 end class of each record is determined by values recorded across 58 input fields[1]:

- Setting,
- Assessment Only Indicator,
- Age Group,
- Mental Health Phase of Care (Phase),
- Mental Health Legal Status (MHLS),
- Health of the Nation Outcome Scale Child and Adolescent (HoNOSCA) array (13 fields),
- Health of the Nation Outcome Scale (HoNOS) array (12 fields),
- Health of the Nation Outcome Scale for Elderly People (HoNOS65) array (12 fields), and Life Skills Profile (LSP) array (16 fields).

A phase identifier field (ID) is also included as a unique record identifier at the beginning of each record, making a total of 59 input fields required by the grouper.

The ordering of these fields in the input CSV file is crucial to the accurate grouping of records by the application. All fields must be included in the input CSV file. Records with missing or invalid field values are allowed but may lead to the record being grouped to an "unknown" type or "ungroupable" end class (see Output Fields section for further details).

Input CSV

The required field ordering of the input CSV file is:

Field Name	Field Number
ID	1
Setting	2
Assessment Only	3
Age Group	4
Phase	5
MHLS	6
HoNOSCA array	7-19
HoNOS array	20-31

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[1] See the AMHCC V1.0 User Manual 2018 for further details on how these inputs are used to determine AMHCC V1.0 end classes: https://www.ihpa.gov.au/publications/amhcc-user-manual

Field Name	Field Number
HoNOS65 array	32-43
LSP array	44-59

The following tables specify valid values for the input fields. Any non-conforming field values are treated as invalid/missing and may lead to the record being grouped to an "unknown" type or "ungroupable" end class (see Output data specifications for further details).

Setting field

The valid values for the Setting field are:

Value	Description
1	Admitted
3	Community

Assessment Only

The valid values for the Assessment Only field are:

Value	Description
1	Yes
2	No
9	Not reported/Unknown

Age Group

The valid values for the Age Group field are:

Value	Description
1	0-17 years
2	18-64 years
3	65+ years

Mental Health Phase of Care

The valid values for the Mental Health Phase of Care field are:

Value	Description
1	Acute
2	Functional Gain
3	Intensive Extended
4	Consolidating Gain
7	Not Applicable
9	Not stated/inadequately described

Mental Health Legal Status

The valid values for the Mental Health Legal Status field are:

Value	Description
1	Involuntary
2	Voluntary
9	Not reported/Unknown

HoNOSCA, HoNOS and HoNOS65 clinical instruments

The HoNOSCA, HoNOS and HoNOS65 arrays consist of 13, 12 and 12 individual fields, respectively. The use of these arrays in the grouping process is determined by the Age Group of the record, with HoNOSCA used for Age Group 1, HoNOS used for Age Group 2, and HoNOS65 used for Age Group 3[1]. The fields in the arrays correspond to items (i.e. questions) within the HoNOSCA, HoNOS and HoNOS65 clinical instruments (i.e. questionnaires). The descriptions of these items are:

Item/Question	HoNOS/HoNOS65+ Description	HoNOSCA Description
Item 1	Overactivity, aggression, agitation	Disruptive, antisocial or aggressive behaviour
Item 2	Non-accidental self-injury	Over-activity, attention or concentration
Item 3	Problem drinking or drug-taking	Non-accidental self-injury
Item 4	Cognitive problems	Alcohol, substance/solvent misuse
Item 5	Physical illness or disability problems	Scholastic or language skills
Item 6	Hallucinations/delusions	Physical illness or disability problems

Item/Question	HoNOS/HoNOS65+ Description	HoNOSCA Description
Item 7	Problems with depressed mood	Hallucinations/delusions
Item 8	Other mental and behavioural problem	Non-organic somatic symptoms
Item 9	Problems with relationships	Emotional and related symptoms
Item 10	Problems with activities of daily living	Peer relationships
Item 11	Problems with living conditions	Self-care and independence
Item 12	Problems with occupation and activities	Family life and relationships
Item 13	N/A	Poor school attendance

HoNOS/HoNOS65/HoNOSCA valid values

The valid values for all fields in the HoNOS/HoNOS65/HoNOSCA array are:

Value	Description
0	No problem
1	Minor problem
2	Mild problem
3	Moderate problem
4	Severe/very severe problem

LSP fields

LSP array consists of 16 fields in total, corresponding to the 16 items in the LSP clinical instrument. The descriptions of these items are:

Item/Question	LSP Description
Item 1	Conversation
Item 2	Social contact
Item 3	Warmth to others
Item 4	Grooming
Item 5	Cleanliness of clothing

Item/Question	LSP Description
Item 6	Neglect physical health
Item 7	Violent
Item 8	Friendships
Item 9	Adequate diet
Item 10	Looks after own prescribed medication without reminding
Item 11	Willing to take prescribed medication
Item 12	Cooperation with health services
Item 13	Problems with others
Item 14	Offensive behavior
Item 15	Irresponsible behavior
Item 16	Work capability

LSP valid values

The valid values for all fields in the LSP array are:

Value	Description
0	No difficulty
1	Slight difficulty
2	Moderate difficulty
3	Extreme difficulty

The application groups all records of the CSV file from row 1. In particular, no header row is expected. However, if a header row is present, the application will still group all records, including the header row which will receive an error (i.e., ungroupable) AMHCC end class.

Output data specifications

Once an input CSV file has been selected and submitted within the application, the application outputs a CSV file in the same location as the input CSV file. The name of the output CSV file is the name of the input CSV file with "_grouped" appended. For example, if the input CSV file is named "MHC_Phase_Data.csv", then the output file will be named "MHC_Phase_Data_grouped.csv".

If a file with the same name as the output file already exists in the output location, then the existing file will be overwritten with the new output file. However, if there is a lock on the existing file (e.g. the file is open), then no file will be output by the application.

The output CSV file contains an identical copy of the input CSV file, together an AMHCC V1.1 end class field. Within the output CSV file, grouping result - AMHCC V1.1 end class is appended to the end of the 58 input fields, as field numbers 59.

The AMHCC V1 End Class output field values are listed in Appendix 1. All input records receive an AMHCC end class value. All input records with valid Setting and Age Group receive a non-error AMHCC V1 end class code; records with invalid or missing Setting or Age Group are assigned the "ungroupable" error end class code "999Z".
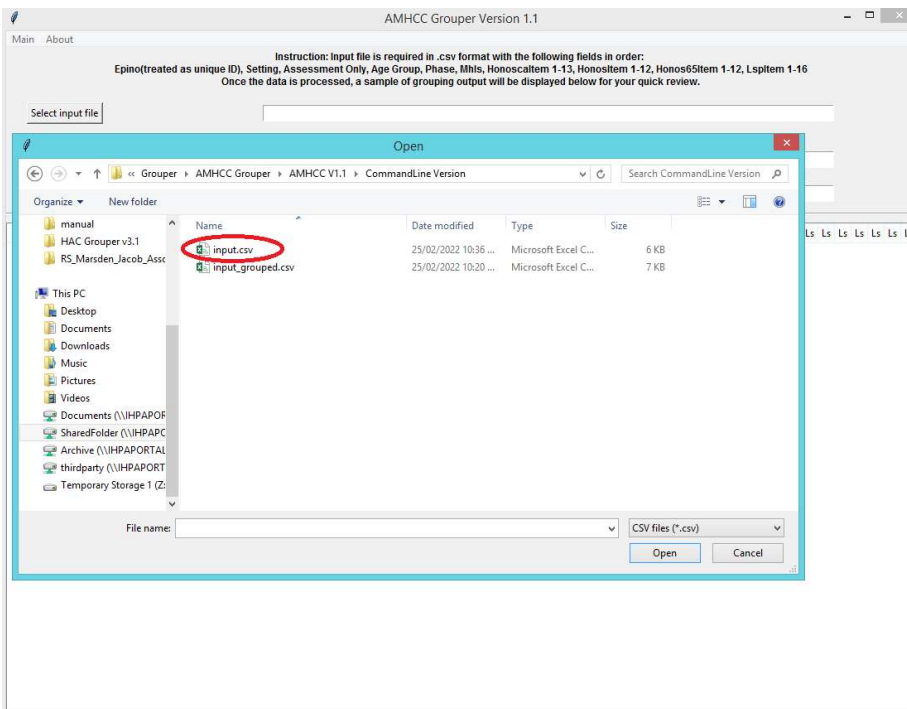
How to group an input file

1. Open AMHCCV1_1.exe click the "Select input file" button to select the input file to be grouped.

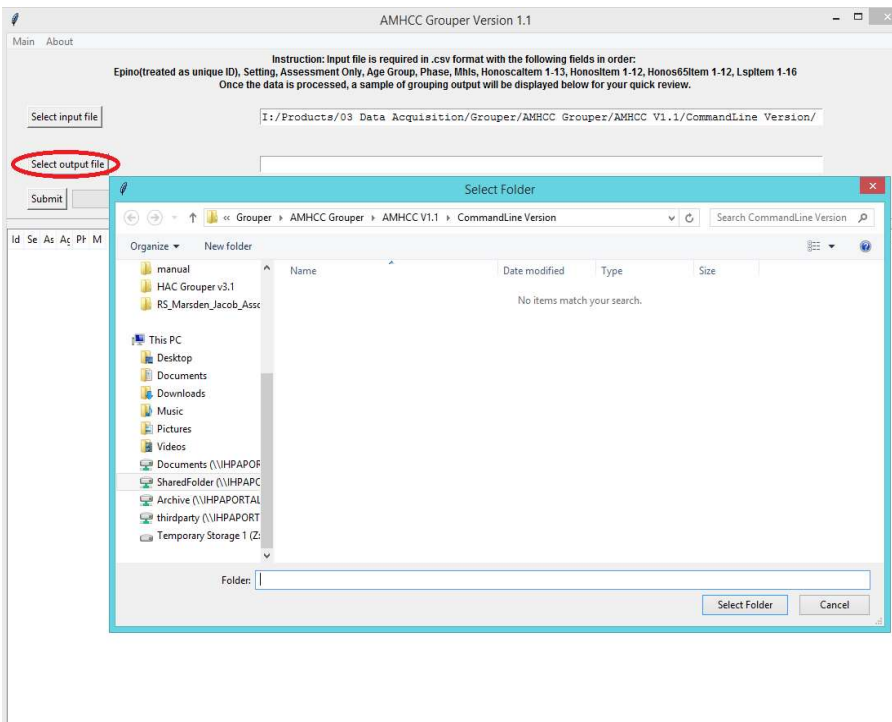**Figure 1.** AHMCC Grouper Main Window
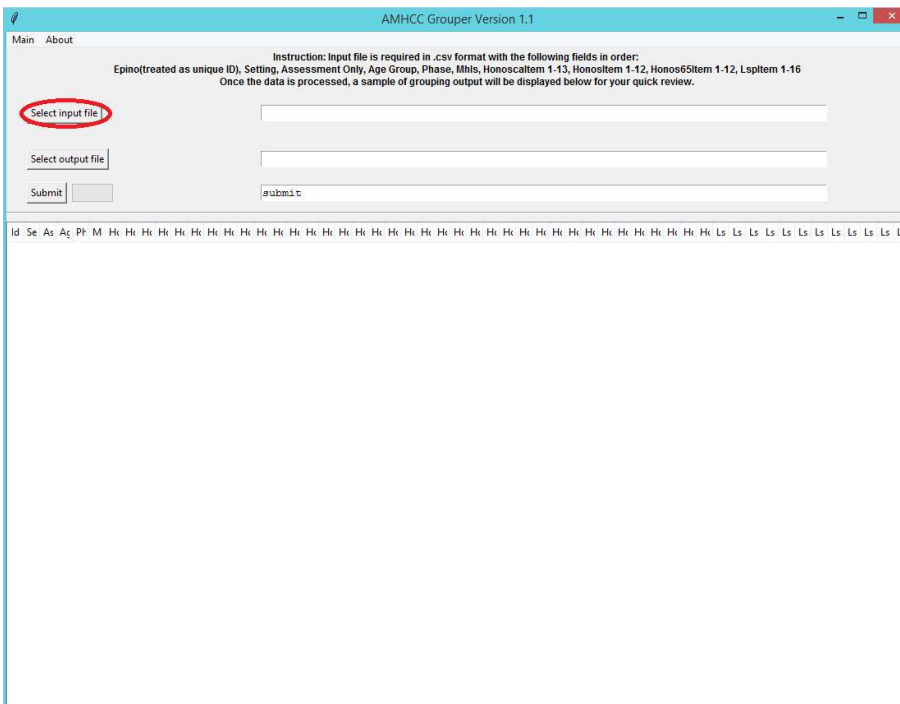
2. Specify the input CSV file to be grouped in the input file. Click "Open" to select it.

Figure 2.   Selecting Data to be grouped
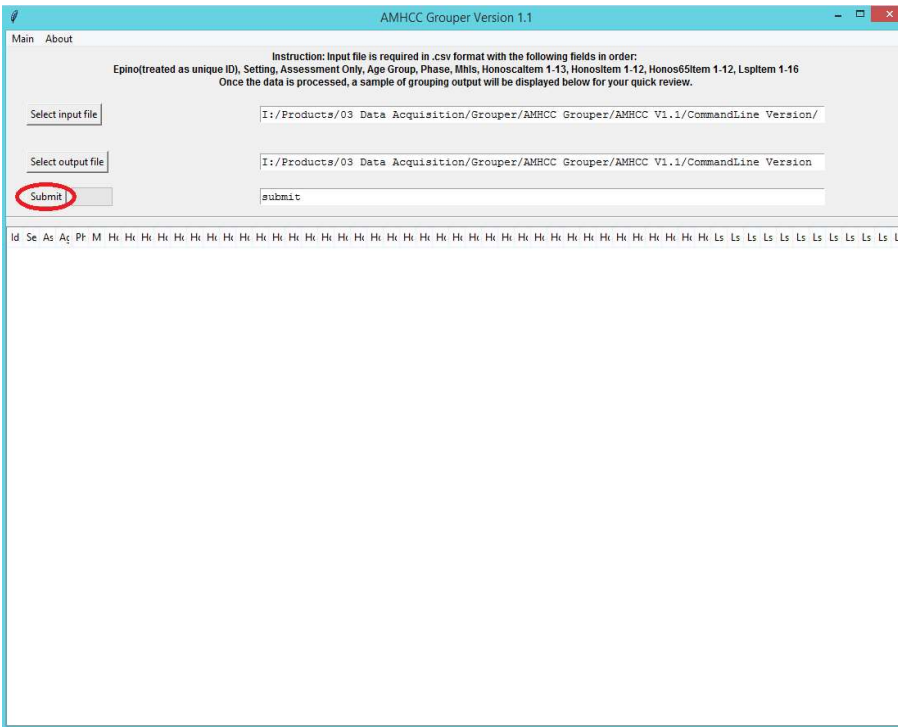

3.   By default, the grouper outputs to the same folder of the input file. To output a different folder, click the "Select Output file" button.

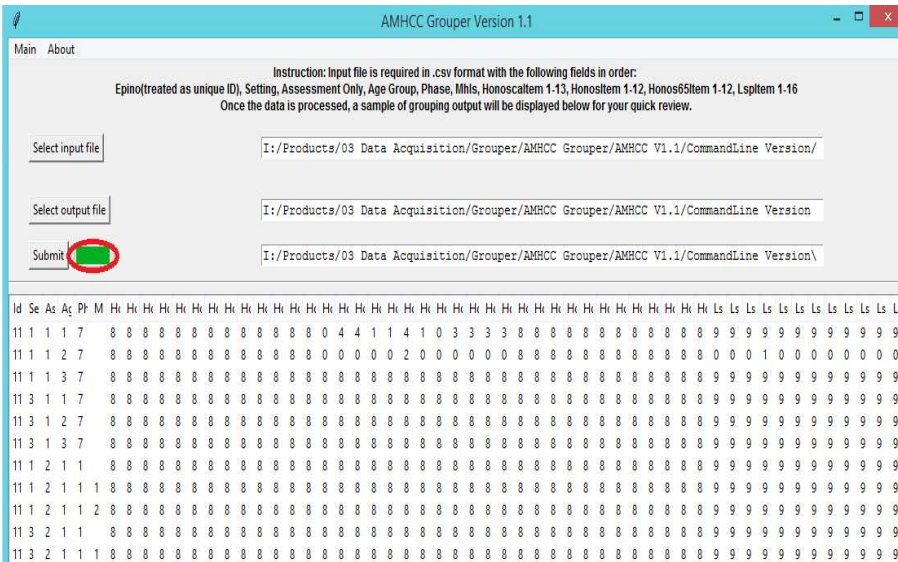**Figure 3.**   Selecting output folder

4. Click the "Submit" button, then the application starts grouping data.

Figure 4.   Submitting Data to be grouped

5. During the running time, a status bar demonstrates the progress of grouping in green, as shown in Figure 5.

Figure 5.   Status bar for showing grouping progress

6. When the grouping is completed, an output message will show the result of processing (whether successful or failed) beside the "Submit" button on the right-hand side. In the bottom of this window, it shows the first 2,000 grouped records.

Figure 6. Grouper output preview.
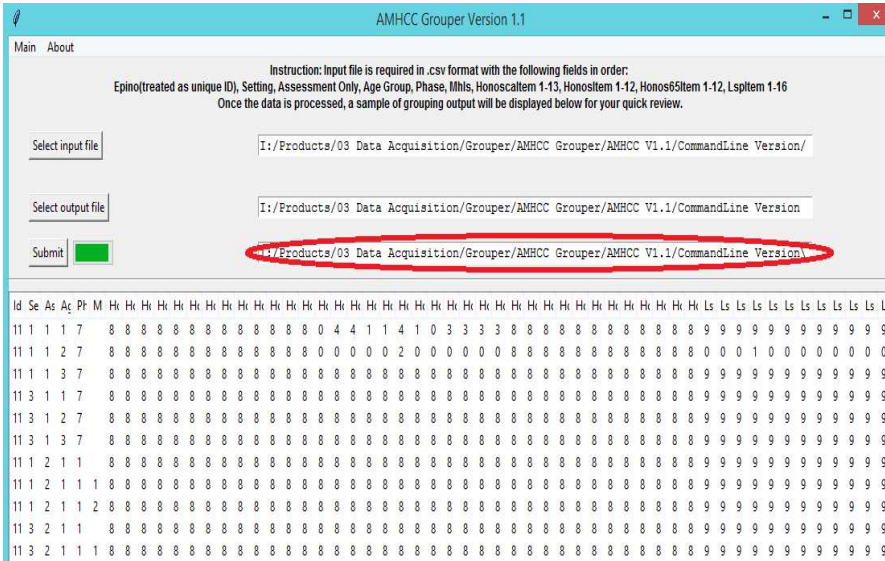
7. After grouping, in the same folder of input file by default, a new CSV file named with original name+"_grouped.csv" is created. The output CSV file contains the original input data together with grouper output column - AMHCC V1.0 End Class appended at the end.

Figure 7. Grouper output .csv file.
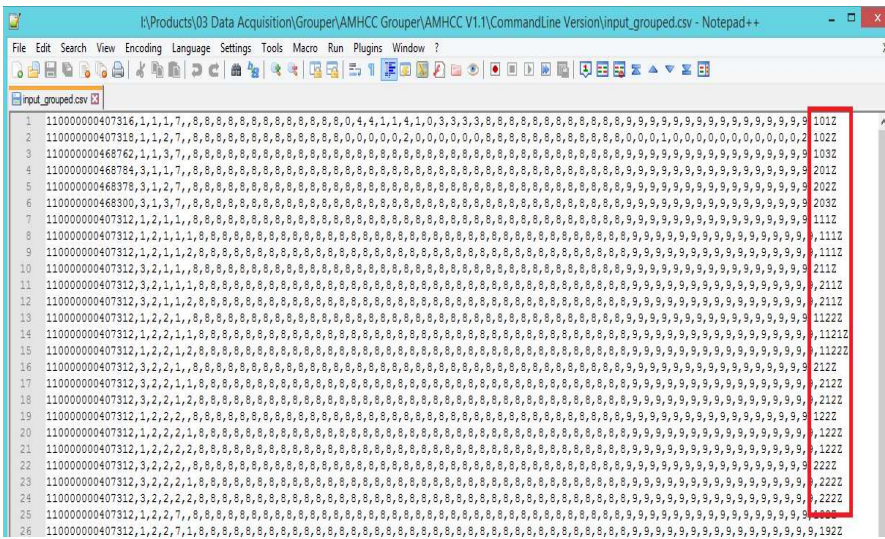
Appendix 1 – List of AMHCC Version 1.0 end class codes and descriptions

Code	Label
101Z	Admitted, Assessment Only, 0-17 years
102Z	Admitted, Assessment Only, 18-64 years
103Z	Admitted, Assessment Only, 65+ years
111A	Admitted, Acute, 0-17 years, High HoNOS Complexity
111B	Admitted, Acute, 0-17 years, Moderate HoNOS Complexity
111Z	Admitted, Acute, 0-17 years, Unknown HoNOS
1121A	Admitted, Acute, 18-64 years, Involuntary, High HoNOS Complexity
1121B	Admitted, Acute, 18-64 years, Involuntary, Moderate HoNOS Complexity
1121Z	Admitted, Acute, 18-64 years, Involuntary, Unknown HoNOS
1122A	Admitted, Acute, 18-64 years, Voluntary, High HoNOS Complexity
1122B	Admitted, Acute, 18-64 years, Voluntary, Moderate HoNOS Complexity
1122Z	Admitted, Acute, 18-64 years, Voluntary, Unknown HoNOS
113A	Admitted, Acute, 65+ years, High HoNOS Complexity
113B	Admitted, Acute, 65+ years, Moderate HoNOS Complexity
113Z	Admitted, Acute, 65+ years, Unknown HoNOS
121A	Admitted, Functional Gain, 0-17 years, High HoNOS Complexity
121B	Admitted, Functional Gain, 0-17 years, Moderate HoNOS Complexity
121Z	Admitted, Functional Gain, 0-17 years, Unknown HoNOS
122A	Admitted, Functional Gain, 18-64 years, High HoNOS Complexity
122B	Admitted, Functional Gain, 18-64 years, Moderate HoNOS Complexity
122Z	Admitted, Functional Gain, 18-64 years, Unknown HoNOS
123A	Admitted, Functional Gain, 65+ years, High HoNOS Complexity
123B	Admitted, Functional Gain, 65+ years, Moderate HoNOS Complexity
123Z	Admitted, Functional Gain, 65+ years, Unknown HoNOS

131A	Admitted, Intensive Extended, 0-17 years, High HoNOS Complexity
131B	Admitted, Intensive Extended, 0-17 years, Moderate HoNOS Complexity
131Z	Admitted, Intensive Extended, 0-17 years, Unknown HoNOS
132A	Admitted, Intensive Extended, 18-64 years, High HoNOS Complexity
132B	Admitted, Intensive Extended, 18-64 years, Moderate HoNOS Complexity
132Z	Admitted, Intensive Extended, 18-64 years, Unknown HoNOS
133A	Admitted, Intensive Extended, 65+ years, High HoNOS Complexity
133B	Admitted, Intensive Extended, 65+ years, Moderate HoNOS Complexity
133Z	Admitted, Intensive Extended, 65+ years, Unknown HoNOS
141A	Admitted, Consolidating Gain, 0-17 years, High HoNOS Complexity
141B	Admitted, Consolidating Gain, 0-17 years, Moderate HoNOS Complexity
141Z	Admitted, Consolidating Gain, 0-17 years, Unknown HoNOS
142A	Admitted, Consolidating Gain, 18-64 years, High HoNOS Complexity
142B	Admitted, Consolidating Gain, 18-64 years, Moderate HoNOS Complexity
142Z	Admitted, Consolidating Gain, 18-64 years, Unknown HoNOS
143A	Admitted, Consolidating Gain, 65+ years, High HoNOS Complexity

143B	Admitted, Consolidating Gain, 65+ years, Moderate HoNOS Complexity
143Z	Admitted, Consolidating Gain, 65+ years, Unknown HoNOS
191Z	Admitted, Unknown Phase, 0-17 years
192Z	Admitted, Unknown Phase, 18-64 years
193Z	Admitted, Unknown Phase, 65+ years
201Z	Community, Assessment Only, 0-17 years
202Z	Community, Assessment Only, 18-64 years
203Z	Community, Assessment Only, 65+ years
211A	Community, Acute, 0-17 years, High HoNOS Complexity
211B	Community, Acute, 0-17 years, Moderate HoNOS Complexity
211Z	Community, Acute, 0-17 years, Unknown HoNOS
212A	Community, Acute, 18-64 years, High HoNOS Complexity
212B1	Community, Acute, 18-64 years, Moderate HoNOS Complexity with High LSP Complexity

212B2	Community, Acute, 18-64 years, Moderate HoNOS Complexity with Moderate LSP Complexity
212Z	Community, Acute, 18-64 years, Unknown HoNOS
213A	Community, Acute, 65+ years, High HoNOS Complexity
213B	Community, Acute, 65+ years, Moderate HoNOS Complexity
213Z	Community, Acute, 65+ years, Unknown HoNOS
221A	Community, Functional Gain, 0-17 years, High HoNOS Complexity
221B	Community, Functional Gain, 0-17 years, Moderate HoNOS Complexity
221Z	Community, Functional Gain, 0-17 years, Unknown HoNOS
222A	Community, Functional Gain, 18-64 years, High HoNOS Complexity
222B1	Community, Functional Gain, 18-64 years, Moderate HoNOS Complexity with High LSP Complexity
222B2	Community, Functional Gain, 18-64 years, Moderate HoNOS Complexity with Moderate LSP Complexity
222Z	Community, Functional Gain, 18-64 years, Unknown HoNOS
223A	Community, Functional Gain, 65+ years, High HoNOS Complexity
223B	Community, Functional Gain, 65+ years, Moderate HoNOS Complexity
223Z	Community, Functional Gain, 65+ years, Unknown HoNOS
231A	Community, Intensive Extended, 0-17 years, High HoNOS Complexity
231B	Community, Intensive Extended, 0-17 years, Moderate HoNOS Complexity
231Z	Community, Intensive Extended, 0-17 years, Unknown HoNOS
232A	Community, Intensive Extended, 18-64 years, High HoNOS Complexity
232B1	Community, Intensive Extended, 18-64 years, Moderate HoNOS Complexity with High LSP Complexity
232B2	Community, Intensive Extended, 18-64 years, Moderate HoNOS Complexity with Moderate LSP Complexity
232Z	Community, Intensive Extended, 18-64 years, Unknown HoNOS
233A	Community, Intensive Extended, 65+ years, High HoNOS Complexity
233B	Community, Intensive Extended, 65+ years, Moderate HoNOS Complexity
233Z	Community, Intensive Extended, 65+ years, Unknown HoNOS
241A	Community, Consolidating Gain, 0-17 years, High HoNOS Complexity
241B	Community, Consolidating Gain, 0-17 years, Moderate HoNOS Complexity
241Z	Community, Consolidating Gain, 0-17 years, Unknown HoNOS

242A	Community, Consolidating Gain, 18-64 years, High HoNOS Complexity
242B1	Community, Consolidating Gain, 18-64 years, Moderate HoNOS Complexity with High LSP Complexity
242B2	Community, Consolidating Gain, 18-64 years, Moderate HoNOS Complexity with Moderate LSP Complexity
242Z	Community, Consolidating Gain, 18-64 years, Unknown HoNOS
243A	Community, Consolidating Gain, 65+ years, High HoNOS Complexity
243B	Community, Consolidating Gain, 65+ years, Moderate HoNOS Complexity
243Z	Community, Consolidating Gain, 65+ years, Unknown HoNOS
291Z	Community, Unknown Phase, 0-17 years
292Z	Community, Unknown Phase, 18-64 years
293Z	Community, Unknown Phase, 65+ years
999Z	Ungroupable (Missing Setting and/or Age Group)