## NCHS-CMS Medicare Chronic Condition Summary File

Variable Name	Variable Description	Туре	Length
SURVEY	NCHS Survey linked to the Chronic Condition Summary File	CHAR	16
PUBLICID <sup>*</sup>	NCHS Survey Identifier - Participant Identification  Number	CHAR	14
SEQN <sup>*</sup>	NCHS Survey Identifier - Sample Sequence Number*	NUM	5
RESNUM <sup>*</sup>	NCHS Survey Identifier - Resident Record (Case)	NUM	6
FILE_YEAR4	Coverage Year of the Chronic Condition Summary File	NUM	4
FIRSTCOV	First Quarter of Beneficiary Coverage	DATE	4
AMI	Acute Myocardial Infarction - End of Year Flag	NUM	1
AMI_MID	Acute Myocardial Infarction - Mid-Year Flag	NUM	1
AMI_EVER	Acute Myocardial Infarction - Date of First Occurrence	DATE	4
ALZH	Alzheimer's Disease - End of Year Flag	NUM	1
ALZH_MID	Alzheimer's Disease - Mid-Year Flag	NUM	1
ALZH_EVER	Alzheimer's Disease - Date of First Occurrence	DATE	4
ALZH_DEMEN	Alzheimer's Disease and Related Disorders or Senile Dementia - End of Year Flag	NUM	1
ALZH_DEMEN_MID	Alzheimer's Disease and Related Disorders or Senile Dementia - Mid-Year Flag	NUM	1
ALZH_DEMEN_EVER	Alzheimer's Disease and Related Disorders or Senile Dementia - Date of First Occurrence	DATE	4
ATRIAL_FIB	Atrial Fibrillation - End of Year Flag	NUM	1
ATRIAL_FIB_MID	Atrial Fibrillation - Mid-Year Flag	NUM	1
ATRIAL_FIB_EVER	Atrial Fibrillation - Date of First Occurrence	DATE	4
CATARACT	Cataract - End of Year Flag	NUM	1
CATARACT_MID	Cataract - Mid-Year Flag	NUM	1
CATARACT_EVER	Cataract - Date of First Occurrence	DATE	4
CHRONICKIDNEY	Chronic Kidney Disease - End of Year Flag	NUM	1
CHRONICKIDNEY_MID	Chronic Kidney Disease - Mid-Year Flag	NUM	1
CHRONICKIDNEY_EVER	Chronic Kidney Disease - Date of First Occurrence	DATE	4
COPD	Chronic Obstructive Pulmonary Disease - End of Year Flag	NUM	1
COPD_MID	Chronic Obstructive Pulmonary Disease - Mid-Year Flag	NUM	1
COPD_EVER	Chronic Obstructive Pulmonary Disease - Date of First Occurrence	DATE	4
CHF	Heart Failure - End of Year Flag	NUM	1
CHF_MID	Heart Failure - Mid-Year Flag	NUM	1
CHF_EVER	Heart Failure - Date of First Occurrence	DATE	4
DIABETES	Diabetes - End of Year Flag	NUM	1
DIABETES_MID	Diabetes - Mid-Year Flag	NUM	1
DIABETES_EVER	Diabetes - Date of First Occurrence	DATE	4
GLAUCOMA	Glaucoma - End of Year Flag	NUM	1
GLAUCOMA_MID	Glaucoma - Mid-Year Flag	NUM	1
GLAUCOMA_EVER	Glaucoma - Date of First Occurrence	DATE	4
HIP_FRACTURE	Hip/Pelvic Fracture - End of Year Flag	NUM	1
HIP_FRACTURE_MID	Hip/Pelvic Fracture - Mid-Year Flag	NUM	1
HIP_FRACTURE_EVER	Hip/Pelvic Fracture - Date of First Occurrence	DATE	4
ISCHEMICHEART	Ischemic Heart Disease - End of Year Flag	NUM	1
ISCHEMICHEART_MID	Ischemic Heart Disease - Mid-Year Flag	NUM	1

<sup>\*</sup>Researchers linking to 1994-2005 NHIS and LSOA II should use PUBLICID.

Researchers linking to NHEFS, NHANES III and 1999-2004 NHANES should use SEQN.

Researchers linking to the 2004 NNHS should use RESNUM.

Variable Name	Variable Description	Туре	Length
ISCHEMICHEART_EVER	Ischemic Heart Disease - Date of First Occurrence	DATE	4
DEPRESSION	Depression - End of Year Flag	NUM	1
DEPRESSION_MID	Depression - Mid-Year Flag	NUM	1
DEPRESSION_EVER	Depression - Date of First Occurrence	DATE	4
OSTEOPOROSIS	Osteoporosis - End of Year Flag	NUM	1
OSTEOPOROSIS_MID	Osteoporosis - Mid-Year Flag	NUM	1
OSTEOPOROSIS_EVER	Osteoporosis - Date of First Occurrence	DATE	4
RA_OA	Rheumatoid Arthritis / Osteoarthritis - End of Year Flag	NUM	1
RA_OAMID	Rheumatoid Arthritis / Osteoarthritis - Mid-Year Flag	NUM	1
RA_OA_EVER	Rheumatoid Arthritis / Osteoarthritis - Date of First Occurrence	DATE	4
STROKE_TIA	Stroke / Transient Ischemic Attack - End of Year Flag	NUM	1
STROKE_TIA_MID	Stroke / Transient Ischemic Attack - Mid-Year Flag	NUM	1
STROKE_TIA_EVER	Stroke / Transient Ischemic Attack - Date of First Occurrence	DATE	4
CANCER_BREAST	Female Breast Cancer - End of Year Flag	NUM	1
CANCER_BREAST_MID	Female Breast Cancer - Mid-Year Flag	NUM	1
CANCER_BREAST_EVER	Female Breast Cancer - Date of First Occurrence	DATE	4
CANCER_COLORECTAL	Colorectal Cancer - End of Year Flag	NUM	1
CANCER_COLORECTAL_MID	Colorectal Cancer - Mid-Year Flag	NUM	1
CANCER_COLORECTAL_EVER	Colorectal Cancer - Date of First Occurrence	DATE	4
CANCER_PROSTATE	Prostate Cancer - End of Year Flag	NUM	1
CANCER_PROSTATE_MID	Prostate Cancer - Mid-Year Flag	NUM	1
CANCER_PROSTATE_EVER	Prostate Cancer - Date of First Occurrence	DATE	4
CANCER_LUNG	Lung Cancer - End of Year Flag	NUM	1
CANCER_LUNG_MID	Lung Cancer - Mid-Year Flag	NUM	1
CANCER_LUNG_EVER	Lung Cancer - Date of First Occurrence	DATE	4
CANCER_ENDOMETRIAL	Endometrial Cancer - End of Year Flag	NUM	1
CANCER_ENDOMETRIAL_MID	Endometrial Cancer - Mid-Year Flag	NUM	1
CANCER_ENDOMETRIAL_EVER	Endometrial Cancer - Date of First Occurrence	DATE	4

# NCHS-CMS Medicare Chronic Condition Summary File Data Dictionary

Variable Name		Туре	Length
SURVEY		CHAR	16
	NCHS Survey linked to the Chronic Condition Summary File		
	This variable indicates the NCHS survey that has been linked to CMS Medicare administrative records.		
PUBLICID*		CHAR	14
	NCHS Survey Identifier – Participant Identification Number*		
	Public use identifier assigned by NCHS used to link NCHS survey data and administrative records.		
	Usage Notes: See Appendix A for NCHS survey specific description	ıs.	
	*Researchers linking to the following surveys should use PUBLIC 1994-2005 NHIS and LSOA II	CID:	
	Researchers linking to the following surveys should use SEQN: NHEFS, NHANES III and 1999-2004 NHANES Researchers linking to the following survey should use RESNUI 2004 NNHS	М:	
SEQN*		NUM	5
	NCHS Survey Identifier – Sample Sequence Number*		
	Public use identifier assigned by NCHS used to link NCHS survey data and administrative records.		
	Usage Notes: See Appendix A for NCHS survey specific description	ıs.	
	*Researchers linking to the following surveys should use PUBLIC 1994-2005 NHIS and LSOA II	CID:	
	Researchers linking to the following surveys should use SEQN: NHEFS, NHANES III and 1999-2004 NHANES		
	Researchers linking to the following survey should use RESNU 2004 NNHS	М:	

Variable Name		Type	Length
RESNUM*		NUM	6
	NCHS Survey Identifier – Resident Record (Case) Number*		
	Public use identifier assigned by NCHS used to link NCHS survey data and administrative records.		
	Usage Notes: See Appendix A for NCHS survey specific description	s.	
	*Researchers linking to the following surveys should use PUBLIC 1994-2005 NHIS and LSOA II	CID:	
	Researchers linking to the following surveys should use SEQN: NHEFS, NHANES III and 1999-2004 NHANES Researchers linking to the following survey should use RESNUN 2004 NNHS	м:	
FILE_YEAR4		NUM	4
	Coverage year of the Chronic Condition Summary File		
	This variable indicates the year of coverage for the chronic condition summary file.		
	Format: YYYY		
	Possible Values: 2005-2007		
FIRSTCOV		DATE	4
	First Quarter of Beneficiary Coverage		
	This code specifies the first calendar year quarter in which the Beneficiary had Medicare coverage.		
	Format: SAS Date (DATE9.)		

Variable Name		Type	Length
AMI		NUM	1
	Acute Myocardial Infarction – Chronic Condition Flag		
	This code specifies whether the beneficiary met the chronic condition algorithm criteria for Acute Myocardial Infarction within the specified reference period.		
	Possible Values:		
	<ul> <li>0 = Neither claims nor coverage met</li> <li>1 = Claims met, coverage not met</li> <li>2 = Claims not met, coverage met</li> <li>3 = Claims and coverage met</li> </ul>		
AMI_MID		NUM	1
	Acute Myocardial Infarction – Mid-Year Flag		
	This code specifies whether the beneficiary met the chronic condition algorithm criteria for Acute Myocardial Infarction on July 1 of the specified reference period.		
	Possible Values:		
	<ul> <li>0 = Neither claims nor coverage met</li> <li>1 = Claims met, coverage not met</li> <li>2 = Claims not met, coverage met</li> <li>3 = Claims and coverage met</li> </ul>		
AMI_EVER		DATE	4
	Acute Myocardial Infarction – Date of First Occurrence		
	This code specifies the first calendar year quarter in which the beneficiary met the chronic condition algorithm criteria for Acute Myocardial Infarction. The earliest possible value is '01JAN1999'.		
	Format: SAS Date (DATE9.)		

Variable Name		Туре	Length
ALZH		NUM	1
	Alzheimer's Disease – Chronic Condition Flag		
	This code specifies whether the beneficiary met the chronic condition algorithm criteria for Alzheimer's Disease within the specified reference period.		
	Possible Values:		
	<ul> <li>0 = Neither claims nor coverage met</li> <li>1 = Claims met, coverage not met</li> <li>2 = Claims not met, coverage met</li> <li>3 = Claims and coverage met</li> </ul>		
ALZH_MID		NUM	1
	Alzheimer's Disease – Mid-Year Flag		
	This code specifies whether the beneficiary met the chronic condition algorithm criteria for Alzheimer's Disease on July 1 of the specified reference period.		
	Possible Values:		
	<ul> <li>0 = Neither claims nor coverage met</li> <li>1 = Claims met, coverage not met</li> <li>2 = Claims not met, coverage met</li> <li>3 = Claims and coverage met</li> </ul>		
ALZH_EVER		DATE	4
	Alzheimer's Disease – Date of First Occurrence		
	This code specifies the first calendar year quarter in which the beneficiary met the chronic condition algorithm criteria for Alzheimer's Disease. The earliest possible value is '01JAN1999'.		
	Format: SAS Date (DATE9.)		

Variable Name		Туре	Length
ALZH_DEMEN		NUM	1
	Alzheimer's Disease and Related Disorders or Senile Dementia – Chronic Condition Flag		
	This code specifies whether the beneficiary met the chronic condition algorithm criteria for Alzheimer's Disease and Related Disorders or Senile Dementia within the specified reference period.		
	Possible Values:		
	<ul> <li>0 = Neither claims nor coverage met</li> <li>1 = Claims met, coverage not met</li> <li>2 = Claims not met, coverage met</li> <li>3 = Claims and coverage met</li> </ul>		
ALZH_DEMEN	_MID	NUM	1
	Alzheimer's Disease and Related Disorders or Senile Dementia – Mid-Year Flag		
	This code specifies whether the beneficiary met the chronic condition algorithm criteria for Alzheimer's Disease and Related Disorders or Senile Dementia on July 1 of the specified reference period.		
	Possible Values:		
	<ul> <li>0 = Neither claims nor coverage met</li> <li>1 = Claims met, coverage not met</li> <li>2 = Claims not met, coverage met</li> <li>3 = Claims and coverage met</li> </ul>		
ALZH_DEMEN	_EVER	DATE	4
	Alzheimer's Disease and Related Disorders or Senile Dementia – Date of First Occurrence		
	This code specifies the first calendar year quarter in which the Beneficiary met the chronic condition algorithm criteria for Alzheimer's Disease and Related Disorders or Senile Dementia. The earliest possible value is '01JAN1999'.		

Variable Name		Туре	Length
ATRIAL_FIB		NUM	1
	Atrial Fibrillation – Chronic Condition Flag		
	This code specifies whether the beneficiary met the chronic condition algorithm criteria for Atrial Fibrillation within the specified reference period.		
	Possible Values:		
	<ul> <li>0 = Neither claims nor coverage met</li> <li>1 = Claims met, coverage not met</li> <li>2 = Claims not met, coverage met</li> <li>3 = Claims and coverage met</li> </ul>		
ATRIAL_FIB_	MID	NUM	1
	Atrial Fibrillation – Mid-Year Flag		
	This code specifies whether the beneficiary met the chronic condition algorithm criteria for Atrial Fibrillation on July 1 of the specified reference period.		
	Possible Values:		
	<ul> <li>0 = Neither claims nor coverage met</li> <li>1 = Claims met, coverage not met</li> <li>2 = Claims not met, coverage met</li> <li>3 = Claims and coverage met</li> </ul>		
ATRIAL_FIB_	EVER	DATE	4
	Atrial Fibrillation – Date of First Occurrence		
	This code specifies the first calendar year quarter in which the beneficiary met the chronic condition algorithm criteria for Atrial Fibrillation. The earliest possible value is '01JAN1999'.		
	Format: SAS Date (DATE9.)		

Variable Name		Туре	Length
CATARACT		NUM	1
0.1_1.1_0_1		2,62,2	_
	Cataract – Chronic Condition Flag		
	This code specifies whether the beneficiary met the chronic condition algorithm criteria for Cataract within the specified reference period.		
	Possible Values:		
	<ul> <li>0 = Neither claims nor coverage met</li> <li>1 = Claims met, coverage not met</li> <li>2 = Claims not met, coverage met</li> <li>3 = Claims and coverage met</li> </ul>		
CATARACT_1	MID	NUM	1
	Cataract – Mid-Year Flag		
	This code specifies whether the beneficiary met the chronic condition algorithm criteria for Cataract on July 1 of the specified reference period.		
	Possible Values:		
	<ul> <li>0 = Neither claims nor coverage met</li> <li>1 = Claims met, coverage not met</li> <li>2 = Claims not met, coverage met</li> <li>3 = Claims and coverage met</li> </ul>		
CATARACT_1	EVER	DATE	4
	Cataract – Date of First Occurrence		
	This code specifies the first calendar year quarter in which the beneficiary met the chronic condition algorithm criteria for Cataract. The earliest possible value is '01JAN1999'.		
	Format: SAS Date (DATE9.)		

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Variable Name		Туре	Length
CHRONICKIDNEY		NUM	1
	Chronic Kidney Disease – Chronic Condition Flag		
	This code specifies whether the beneficiary met the chronic condition algorithm criteria for Chronic Kidney Disease within the specified reference period.		
	Possible Values:		
	<ul> <li>0 = Neither claims nor coverage met</li> <li>1 = Claims met, coverage not met</li> <li>2 = Claims not met, coverage met</li> <li>3 = Claims and coverage met</li> </ul>		
CHRONICKIDNEY_MID		NUM	1
	Chronic Kidney Disease – Mid-Year Flag		
	This code specifies whether the beneficiary met the chronic condition algorithm criteria for Chronic Kidney Disease on July 1 of the specified reference period.		
	Possible Values:		
	<ul> <li>0 = Neither claims nor coverage met</li> <li>1 = Claims met, coverage not met</li> <li>2 = Claims not met, coverage met</li> <li>3 = Claims and coverage met</li> </ul>		
CHRONICKID	NEY_EVER	DATE	4
	Chronic Kidney Disease – Date of First Occurrence		
	This code specifies the first calendar year quarter in which the beneficiary met the chronic condition algorithm criteria for Chronic Kidney Disease. The earliest possible value is '01JAN1999'.		
	Format: SAS Date (DATE9.)		

Variable Name		Type	Lengt
COPD		NUM	1
	Chronic Obstructive Pulmonary Disease – Chronic Condition I	Flag	
	This code specifies whether the beneficiary met the chronic condition algorithm criteria for Chronic Obstructive Pulmonary Disease within the specified reference period.		
	Possible Values:		
	<ul> <li>0 = Neither claims nor coverage met</li> <li>1 = Claims met, coverage not met</li> <li>2 = Claims not met, coverage met</li> <li>3 = Claims and coverage met</li> </ul>		
COPD_MID		NUM	1
	Chronic Obstructive Pulmonary Disease – Mid-Year Flag		
	This code specifies whether the beneficiary met the chronic condition algorithm criteria for Chronic Obstructive Pulmonary Disease on July 1 of the specified reference period.		
	Possible Values:		
	<ul> <li>0 = Neither claims nor coverage met</li> <li>1 = Claims met, coverage not met</li> <li>2 = Claims not met, coverage met</li> <li>3 = Claims and coverage met</li> </ul>		
COPD_EVER		DATE	4
	Chronic Obstructive Pulmonary Disease – Date of First Occurrence		
	This code specifies the first calendar year quarter in which the beneficiary met the chronic condition algorithm criteria for Chronic Obstructive Pulmonary Disease. The earliest possible value is '01JAN1999'.		
	Format: SAS Date (DATE9.)		

Variable Name		Туре	Length
CHF		NUM	1
	Heart Failure – Chronic Condition Flag		
	This code specifies whether the beneficiary met the chronic condition algorithm criteria for Heart Failure within the specified reference period.		
	Possible Values:		
	<ul> <li>0 = Neither claims nor coverage met</li> <li>1 = Claims met, coverage not met</li> <li>2 = Claims not met, coverage met</li> <li>3 = Claims and coverage met</li> </ul>		
CHF_MID		NUM	1
	Heart Failure – Mid-Year Flag		
	This code specifies whether the beneficiary met the chronic condition algorithm criteria for Heart Failure on July 1 of the specified reference period.		
	Possible Values:		
	<ul> <li>0 = Neither claims nor coverage met</li> <li>1 = Claims met, coverage not met</li> <li>2 = Claims not met, coverage met</li> <li>3 = Claims and coverage met</li> </ul>		
CHF_EVER		DATE	4
	Heart Failure – Date of First Occurrence		
	This code specifies the first calendar year quarter in which the beneficiary met the chronic condition algorithm criteria for Heart Failure. The earliest possible value is '01JAN1999'.		
	Format: SAS Date (DATE9.)		

Variable Name		Type	Length
DIABETES		NUM	1
	Diabetes – Chronic Condition Flag		
	This code specifies whether the beneficiary met the chronic condition algorithm criteria for Diabetes within the specified reference period.		
	Possible Values:		
	<ul> <li>0 = Neither claims nor coverage met</li> <li>1 = Claims met, coverage not met</li> <li>2 = Claims not met, coverage met</li> <li>3 = Claims and coverage met</li> </ul>		
DIABETES_M	ID	NUM	1
	Diabetes – Mid-Year Flag		
	This code specifies whether the beneficiary met the chronic condition algorithm criteria for Diabetes on July 1 of the specified reference period.		
	Possible Values:		
	<ul> <li>0 = Neither claims nor coverage met</li> <li>1 = Claims met, coverage not met</li> <li>2 = Claims not met, coverage met</li> <li>3 = Claims and coverage met</li> </ul>		
DIABETES_EV	/ER	DATE	4
	Diabetes – Date of First Occurrence		
	This code specifies the first calendar year quarter in which the beneficiary met the chronic condition algorithm criteria for Diabetes. The earliest possible value is '01JAN1999'.		
	Format: SAS Date (DATE9.)		

Variable Name		Type	Length
GLAUCOMA		NUM	1
	Glaucoma – Chronic Condition Flag		
	This code specifies whether the beneficiary met the chronic condition algorithm criteria for Glaucoma within the specified reference period.		
	Possible Values:		
	<ul> <li>0 = Neither claims nor coverage met</li> <li>1 = Claims met, coverage not met</li> <li>2 = Claims not met, coverage met</li> <li>3 = Claims and coverage met</li> </ul>		
GLAUCOMA_N	MID	NUM	1
	Glaucoma – Mid-Year Flag		
	This code specifies whether the beneficiary met the chronic condition algorithm criteria for Glaucoma on July 1 of the specified reference period.		
	Possible Values:		
	<ul> <li>0 = Neither claims nor coverage met</li> <li>1 = Claims met, coverage not met</li> <li>2 = Claims not met, coverage met</li> <li>3 = Claims and coverage met</li> </ul>		
GLAUCOMA_I	EVER	DATE	4
	Glaucoma – Date of First Occurrence		
	This code specifies the first calendar year quarter in which the beneficiary met the chronic condition algorithm criteria for Glaucoma. The earliest possible value is '01JAN1999'.		
	Format: SAS Date (DATE9.)		

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Variable Name	Туре	Length
HIP_FRACTURE	NUM	1
Hip/Pelvic Fracture – Chronic Condition Flag		
This code specifies whether the beneficiary met the chronic condition algorithm criteria for Hip/Pelvic Fracture within the specified reference period.		
Possible Values:		
<ul> <li>0 = Neither claims nor coverage met</li> <li>1 = Claims met, coverage not met</li> <li>2 = Claims not met, coverage met</li> <li>3 = Claims and coverage met</li> </ul>		
HIP_FRACTURE_MID	NUM	1
Hip/Pelvic Fracture – Mid-Year Flag		
This code specifies whether the beneficiary met the chronic condition algorithm criteria for Hip/Pelvic Fracture on July 1 of the specified reference period.		
Possible Values:		
0 = Neither claims nor coverage met 1 = Claims met, coverage not met 2 = Claims not met, coverage met 3 = Claims and coverage met		
HIP_FRACTURE_EVER	DATE	4
Hip/Pelvic Fracture – Date of First Occurrence		
This code specifies the first calendar year quarter in which the beneficiary met the chronic condition algorithm criteria for Hip/Pelvic Fracture. The earliest possible value is '01JAN1999'.		
Format: SAS Date (DATE9.)		

Variable Name	Type	Longth
	Type	Length
ISCHEMICHEART	NUM	1
Ischemic Heart Disease – Chronic Condition Flag		
This code specifies whether the beneficiary met the chronic condition algorithm criteria for Ischemic Heart Disease within the specified reference period.		
Possible Values:		
0 = Neither claims nor coverage met 1 = Claims met, coverage not met 2 = Claims not met, coverage met 3 = Claims and coverage met		
ISCHEMICHEART_MID		1
Ischemic Heart Disease – Mid-Year Flag		
This code specifies whether the beneficiary met the chronic condition algorithm criteria for Ischemic Heart Disease on July 1 of the specified reference period.		
Possible Values:		
0 = Neither claims nor coverage met 1 = Claims met, coverage not met 2 = Claims not met, coverage met 3 = Claims and coverage met		
ISCHEMICHEART_EVER	DATE	4
Ischemic Heart Disease – Date of First Occurrence		
This code specifies the first calendar year quarter in which the beneficiary met the chronic condition algorithm criteria for Ischemic Heart Disease. The earliest possible value is '01JAN1999'		
Format: SAS Date (DATE9.)		

Variable Name		Type	Length
DEPRESSION		NUM	1
	Depression – Chronic Condition Flag		
	This code specifies whether the beneficiary met the chronic condition algorithm criteria for Depression within the specified reference period.		
	Possible Values:		
	<ul> <li>0 = Neither claims nor coverage met</li> <li>1 = Claims met, coverage not met</li> <li>2 = Claims not met, coverage met</li> <li>3 = Claims and coverage met</li> </ul>		
DEPRESSION_	MID	NUM	1
	Depression – Mid-Year Flag		
	This code specifies whether the beneficiary met the chronic condition algorithm criteria for Depression on July 1 of the specified reference period.		
	Possible Values:		
	<ul> <li>0 = Neither claims nor coverage met</li> <li>1 = Claims met, coverage not met</li> <li>2 = Claims not met, coverage met</li> <li>3 = Claims and coverage met</li> </ul>		
DEPRESSION_	EVER	DATE	4
	Depression – Date of First Occurrence		
	This code specifies the first calendar year quarter in which the beneficiary met the chronic condition algorithm criteria for Depression. The earliest possible value is '01JAN1999'.		
	Format: SAS Date (DATE9.)		

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Variable Name		Туре	Lengt
OSTEOPOROSIS		NUM	1
	Osteoporosis – Chronic Condition Flag		
	This code specifies whether the beneficiary met the chronic condition algorithm criteria for Osteoporosis within the specified reference period.		
	Possible Values:		
	<ul> <li>0 = Neither claims nor coverage met</li> <li>1 = Claims met, coverage not met</li> <li>2 = Claims not met, coverage met</li> <li>3 = Claims and coverage met</li> </ul>		
OSTEOPOROSIS_MID		NUM	1
	Osteoporosis – Mid-Year Flag		
	This code specifies whether the beneficiary met the chronic condition algorithm criteria for Osteoporosis on July 1 of the specified reference period.		
	Possible Values:		
	<ul> <li>0 = Neither claims nor coverage met</li> <li>1 = Claims met, coverage not met</li> <li>2 = Claims not met, coverage met</li> <li>3 = Claims and coverage met</li> </ul>		
OSTEOPOROSIS_EVER		DATE	4
	Osteoporosis – Date of First Occurrence		
	This code specifies the first calendar year quarter in which the beneficiary met the chronic condition algorithm criteria for Osteoporosis. The earliest possible value is '01JAN1999'.		

Variable Name		Type	Length
RA_OA		NUM	1
	Rheumatoid Arthritis / Osteoarthritis – Chronic Condition Flag		
	This code specifies whether the beneficiary met the chronic condition algorithm criteria for Rheumatoid Arthritis / Osteoarthritis within the specified reference period.		
	Possible Values:		
	<ul> <li>0 = Neither claims nor coverage met</li> <li>1 = Claims met, coverage not met</li> <li>2 = Claims not met, coverage met</li> <li>3 = Claims and coverage met</li> </ul>		
RA_OA_MID		NUM	1
	Rheumatoid Arthritis / Osteoarthritis – Mid-Year Flag		
	This code specifies whether the beneficiary met the chronic condition algorithm criteria for Rheumatoid Arthritis / Osteoarthritis on July 1 of the specified reference period.		
	Possible Values:		
	<ul> <li>0 = Neither claims nor coverage met</li> <li>1 = Claims met, coverage not met</li> <li>2 = Claims not met, coverage met</li> <li>3 = Claims and coverage met</li> </ul>		
RA_OA_EVER		DATE	4
	Rheumatoid Arthritis / Osteoarthritis – Date of First Occurrence		
	This code specifies the first calendar year quarter in which the beneficiary met the chronic condition algorithm criteria for Rheumatoid Arthritis / Osteoarthritis. The earliest possible value is '01JAN1999'.		
	Format: SAS Date (DATE9.)		

Variable Name		Туре	Length
STROKE_TIA		NUM	1
			_
	Stroke / Transient Ischemic Attack – Chronic Condition Flag		
	This code specifies whether the beneficiary met the chronic condition algorithm criteria for Stroke / Transient Ischemic Attack within the specified reference period.		
	Possible Values:		
	<ul> <li>0 = Neither claims nor coverage met</li> <li>1 = Claims met, coverage not met</li> <li>2 = Claims not met, coverage met</li> <li>3 = Claims and coverage met</li> </ul>		
STROKE_TIA_MID		NUM	1
	Stroke / Transient Ischemic Attack – Mid-Year Flag		
	This code specifies whether the beneficiary met the chronic condition algorithm criteria for Stroke / Transient Ischemic on July 1 of the specified reference period.		
	Possible Values:		
	<ul> <li>0 = Neither claims nor coverage met</li> <li>1 = Claims met, coverage not met</li> <li>2 = Claims not met, coverage met</li> <li>3 = Claims and coverage met</li> </ul>		
STROKE_TIA_	EVER	DATE	4
	Stroke / Transient Ischemic Attack – Date of First Occurrence		
	This code specifies the first calendar year quarter in which the beneficiary met the chronic condition algorithm criteria for Stroke / Transient Ischemic. The earliest possible value is '01JAN1'	999'.	
	Format: SAS Date (DATF9)		

Variable Name		Type	Lengt
CANCER_BRE	EAST	NUM	1
	Female Breast Cancer – Chronic Condition Flag		
	This code specifies whether the beneficiary met the chronic condition algorithm criteria for Female Breast Cancer within the specified reference period.		
	Possible Values:		
	<ul> <li>0 = Neither claims nor coverage met</li> <li>1 = Claims met, coverage not met</li> <li>2 = Claims not met, coverage met</li> <li>3 = Claims and coverage met</li> </ul>		
CANCER_BREAST_MID		NUM	1
	Female Breast Cancer – Mid-Year Flag		
	This code specifies whether the beneficiary met the chronic condition algorithm criteria for Female Breast Cancer on July 1 of the specified reference period.		
	Possible Values:		
	<ul> <li>0 = Neither claims nor coverage met</li> <li>1 = Claims met, coverage not met</li> <li>2 = Claims not met, coverage met</li> <li>3 = Claims and coverage met</li> </ul>		
CANCER_BREAST_EVER		DATE	4
	Female Breast Cancer – Date of First Occurrence		
	This code specifies the first calendar year quarter in which the beneficiary met the chronic condition algorithm criteria for Female Breast Cancer. The earliest possible value is '01JAN1999'.		

Variable Name		Туре	Length
CANCER_COI	LORECTAL	NUM	1
	Colorectal Cancer – Chronic Condition Flag		
	This code specifies whether the beneficiary met the chronic condition algorithm criteria for Colorectal Cancer within the specified reference period.		
	Possible Values:		
	<ul> <li>0 = Neither claims nor coverage met</li> <li>1 = Claims met, coverage not met</li> <li>2 = Claims not met, coverage met</li> <li>3 = Claims and coverage met</li> </ul>		
CANCER_COLORECTAL _MID		NUM	1
	Colorectal Cancer – Mid-Year Flag		
	This code specifies whether the beneficiary met the chronic condition algorithm criteria for Colorectal Cancer on July 1 of the specified reference period.		
	Possible Values:		
	<ul> <li>0 = Neither claims nor coverage met</li> <li>1 = Claims met, coverage not met</li> <li>2 = Claims not met, coverage met</li> <li>3 = Claims and coverage met</li> </ul>		
CANCER_COLORECTAL _EVER		DATE	4
	Colorectal Cancer – Date of First Occurrence		
	This code specifies the first calendar year quarter in which the beneficiary met the chronic condition algorithm criteria for Colorectal Cancer. The earliest possible value is '01JAN1999'.		

Y		<b>T</b>	I
Variable Name		Туре	Lengt
CANCER_PRO	CANCER_PROSTATE		1
	Prostate Cancer – Chronic Condition Flag		
	This code specifies whether the beneficiary met the chronic condition algorithm criteria for Prostate Cancer within the specified reference period.		
	Possible Values:		
	<ul> <li>0 = Neither claims nor coverage met</li> <li>1 = Claims met, coverage not met</li> <li>2 = Claims not met, coverage met</li> <li>3 = Claims and coverage met</li> </ul>		
CANCER_PROSTATE_MID		NUM	1
	Prostate Cancer – Mid-Year Flag		
	This code specifies whether the beneficiary met the chronic condition algorithm criteria for Prostate Cancer on July 1 of the specified reference period.		
	Possible Values:		
	<ul> <li>0 = Neither claims nor coverage met</li> <li>1 = Claims met, coverage not met</li> <li>2 = Claims not met, coverage met</li> <li>3 = Claims and coverage met</li> </ul>		
CANCER_PROSTATE_EVER		DATE	4
	Prostate Cancer – Date of First Occurrence		
	This code specifies the first calendar year quarter in which the beneficiary met the chronic condition algorithm criteria for Prostate Cancer. The earliest possible value is '01JAN1999'.		

Variable Name		Typo	Lengt
Variable Name		Туре	
CANCER_LUN	NG	NUM	1
	<b>Lung Cancer – Chronic Condition Flag</b>		
	This code specifies whether the beneficiary met the chronic condition algorithm criteria for Lung Cancer within the specified reference period.		
	Possible Values:		
	<ul> <li>0 = Neither claims nor coverage met</li> <li>1 = Claims met, coverage not met</li> <li>2 = Claims not met, coverage met</li> <li>3 = Claims and coverage met</li> </ul>		
CANCER_LUNG_MID		NUM	1
	Lung Cancer – Mid-Year Flag		
	This code specifies whether the beneficiary met the chronic condition algorithm criteria for Lung Cancer on July 1 of the specified reference period.		
	Possible Values:		
	<ul> <li>0 = Neither claims nor coverage met</li> <li>1 = Claims met, coverage not met</li> <li>2 = Claims not met, coverage met</li> <li>3 = Claims and coverage met</li> </ul>		
CANCER_LUNG_EVER		DATE	4
	Lung Cancer – Date of First Occurrence		
	This code specifies the first calendar year quarter in which the beneficiary met the chronic condition algorithm criteria for Lung Cancer. The earliest possible value is '01JAN1999'.		

Variable Name		Туре	Length
CANCER_ENI	DOMETRIAL	NUM	1
	Endometrial Cancer – Chronic Condition Flag		
	This code specifies whether the beneficiary met the chronic condition algorithm criteria for Endometrial Cancer within the specified reference period.		
	Possible Values:		
	<ul> <li>0 = Neither claims nor coverage met</li> <li>1 = Claims met, coverage not met</li> <li>2 = Claims not met, coverage met</li> <li>3 = Claims and coverage met</li> </ul>		
CANCER_ENDOMETRIAL_MID		NUM	1
	Endometrial Cancer – Mid-Year Flag		
	This code specifies whether the beneficiary met the chronic condition algorithm criteria for Endometrial Cancer on July 1 of the specified reference period.		
	Possible Values:		
	<ul> <li>0 = Neither claims nor coverage met</li> <li>1 = Claims met, coverage not met</li> <li>2 = Claims not met, coverage met</li> <li>3 = Claims and coverage met</li> </ul>		
CANCER_ENI	DOMETRIAL_EVER	DATE	4
	Endometrial Cancer – Date of First Occurrence		
	This code specifies the first calendar year quarter in which the beneficiary met the chronic condition algorithm criteria for Endometrial Cancer. The earliest possible value is '01JAN1999'.		
	Format: SAS Date (DATE9.)		

### Appendix A: Data Usage Issues regarding PUBLICID/SEQN/RESNUM

The data provided on the 1994-2005 NHIS, NHEFS, 1999-2004 NHANES, NHANES III, LSOA II and 2004 NNHS linked CMS Medicare files can be merged with the NCHS public use survey data files using the unique survey specific Public Identification number (PUBLICID/SEQN/RESNUM).

Note: At this time the linked CMS Medicare data files are only available for research use through the NCHS restricted access data center (RDC). Approved RDC researchers may choose to provide their own analytic files created from public use survey files to the RDC. Therefore, it is important for researchers to include survey specific Public Identification number on any analytic files sent to the RDC. The RDC will merge data (using PUBLICID, SEQN or RESNUM) from the linked CMS Medicare files to the analyst's file. The merged file will be held at the RDC and made available for analysis. Information on how to identify and/or construct the NCHS survey specific PUBLICID, SEQN or RESNUM is provided below.

#### I. National Health Interview Survey (NHIS)

On the NHIS surveys, researchers need to construct the NHIS public id from the following variables. The number and public-use location varies by NHIS survey year.

#### **NHIS 1994**

	Public-use		
<u>Item</u>	Location	<u>Length</u>	<u>Description</u>
Year (2 digit)	3-4	2	Year of interview
Quarter	5	1	Calendar quarter of interview
PSU	6-8	3	Random recode of PSU #
Week	9-10	2	Week of interview within quarter
Segment	11-12	2	Segment number
Household	13-14	2	Household number within quarter
Person number	15-16	2	Person number within household
Quarter PSU Week Segment Household	5 6-8 9-10 11-12 13-14	1 3 2 2 2	Calendar quarter of interview Random recode of PSU # Week of interview within quarter Segment number Household number within quarter

Note: Concatenate all variables to get the unique person identifier. All variables are zero filled.

## NHIS 1995, 1996

<u>Item</u>	Public-use Location	Length	<u>Description</u>
Year (2 digit)	3-4	2	Year of interview
Household ID	5-14	10	Household ID number
Person number	15-16	2	Person number within Household

Note: Concatenate all variables to get the unique person identifier. All variables are zero filled.

### NHIS 1997-2003

<u>Item</u>	Public-use Location	<u>Length</u>	Description
Year (4 digit)	3-6	4	Year of interview
Household Serial #	7-12	6	Household serial number
Person number	15-16	2	Person number within Household

Note: Concatenate all variables to get the unique person identifier. All variables are zero filled.

### NHIS 2004, 2005

<u>Item</u>	Public-use Location	Length	<u>Description</u>
Year (4 digit)	3-6	4	Year of interview
Household serial #	7-12	6	Household serial number
Family sequence #	13-14	2	Family number
Person sequence #	15-16	2	Person number

Note: Concatenate all variables to get the unique person identifier. All variables are zero filled.

#### II. NHANES I Epidemiologic Follow-up Study NHEFS

<u>Item</u>	<u>Length</u>	<u>Description</u>
SEQN	5	Participant identification number

All of the NHEFS public-use data files are linked with the common survey participant identification number (SEQN). Merging information from multiple NHEFS Files to the NHEFS-CMS linked files using this variable ensures that the appropriate information for each survey participant is linked correctly.

#### III. National Health and Nutrition Examination Survey (NHANES)

<u>Item</u>	<u>Length</u>	Description
SEQN	5	Participant identification number

All of the NHANES public-use data files are linked with the common survey participant identification number (SEQN). Merging information from multiple NHANES Files to the NHANES-CMS linked files using this variable ensures that the appropriate information for each survey participant is linked correctly

#### IV. Third National Health and Nutrition Examination Survey (NHANES III)

<u>Item</u>	<u>Length</u>	<u>Description</u>
SEQN	5	Participant identification number

All of the NHANES III public-use data files are linked with the common survey participant identification number (SEQN). Merging information from multiple NHANES III Files to the NHANES III-CMS linked files using this variable ensures that the appropriate information for each survey participant is linked correctly.

## V. The Second Longitudinal Study of Aging (LSOA II)

On the LSOA II survey, researchers need to construct the LSOA II public id from the following variables.

#### LSOA II

Itam	Public-use	Lonoth	Description
<u>Item</u>	Location	<u>Length</u>	<u>Description</u>
Year	3-4	2	Year of interview
Quarter	5	1	Calendar quarter of interview
PSU	6-8	3	Random recode of PSU #
Week	9-10	2	Week of interview within quarter
Segment	11-12	2	Segment number
Household	13-14	2	Household number within quarter
Person number	15-16	2	Person number within household

Note: Concatenate all variables to get the unique person identifier. All variables are zero filled.

### VI. 2004 National Nursing Home Survey (NNHS)

<u>Item</u>	<u>Length</u>	<u>Description</u>
RESNUM	6	Resident Record (Case) Number

All of the 2004 NNHS public-use data files are linked with the common resident record (case) number (RESNUM). Merging information from the 2004 NNHS Files to the 2004 NNHS-CMS linked files using this variable ensures that the appropriate information for each survey participant is linked correctly.

## **Appendix B: Chronic Condition Definitions**

Algorithms	Reference Time Period (# of years)	Valid ICD-9/CPT4/HCPCS Codes <sup>1</sup>	Number/Type of Claims to Qualify <sup>2,3</sup>	Exclusions
Acute Myocardial Infarction		DX 410.01, 410.11, 410.21, 410.31, 410.41, 410.51, 410.61, 410.71, 410.81, 410.91 (ONLY first or second DX on the claim)	At least 1 inpatient claim with DX codes during the 1-yr period	
Alzheimer's Disease	3 years	DX 331.0 (any DX on the claim)	At least 1 inpatient, SNF, HHA, HOP or Carrier claim with DX codes during the 3-yr period	
Alzheimer's Disease and Related Disorders or Senile Dementia		DX 331.0, 331.1, 331.11, 331.19, 331.2, 331.7, 290.0, 290.10, 290.11, 290.12, 290.13, 290.20, 290.21, 290.3, 290.40, 290.41, 290.42, 290.43, 294.0, 294.1, 294.10, 294.11, 294.8, 797 (any DX on the claim)	At least 1 inpatient, SNF, HHA HOP or Carrier claim with DX codes during the 3-yr period	
Atrial Fibrillation	1 year	DX 427.31 (ONLY first or second DX on the claim)	At least 1 inpatient claim or 2 HOP or Carrier claims with DX code during the 1-yr period	
Cataract	,	DX 366.01, 366.02, 366.03, 366.04, 366.09, 366.10, 366.12, 366.13, 366.14, 366.15, 366.16, 366.17, 366.18, 366.19, 366.20, 366.21, 366.22, 366.23, 366.30, 366.32, 366.33, 366.34, 366.41, 366.42, 366.43, 366.44, 366.45, 366.46, 366.50, 366.51, 366.52, 366.53, 366.8, 366.9, 379.26, 379.31, 379.39, 743.31, 743.32, 743.33, 996.53, V43.1, (ONLY principal DX on the claim)	At least 1 HOP or Carrier claim with DX codes during the I-yr period	
Chronic Kidney Disease		DX 016.00, 016.01, 016.02, 016.03, 016.04, 016.05, 016.06, 095.4, 189.0, 189.9, 223.0, 236.91, 249.40, 249.41, 250.40, 250.41, 250.42, 250.43, 271.4, 274.10, 283.11, 403.01, 403.11, 403.91, 404.02, 404.03, 404.12, 404.13, 404.92, 404.93, 440.1, 442.1, 572.4, 580.0, 580.4, 580.81, 580.89, 580.9, 581.0, 581.1, 581.2, 581.3, 581.81, 581.89, 581.9, 582.0, 582.1, 582.2, 582.4, 582.81, 582.89, 582.9, 583.0, 583.1, 583.2, 583.4, 583.6, 583.7, 583.81, 583.89, 583.9, 584.5, 584.6, 584.7, 584.8, 584.9, 585, 585.1, 585.2, 585.3, 585.4, 585.5, 585.6, 585.9, 586, 587, 588.0, 588.1, 588.81, 588.89, 588.9, 591, 753.12, 753.13, 753.14, 753.15, 753.16, 753.17, 753.19, 753.20, 753.21, 753.22, 753.23, 753.29, 794.4 (any DX on the claim)	codes during the 2-yr period	

Algorithms	Reference Time Period (# of years)	Valid ICD-9/CPT4/HCPCS Codes <sup>1</sup>	Number/Type of Claims to Qualify <sup>2,3</sup>	Exclusions
Chronic Obstructive Pulmonary Disease	1 year		At least 1 inpatient, SNF, HHA or 2 HOP or Carrier claims with DX codes during the 1-yr period	
Depression			At least 1 inpatient, SNF, HHA, HOP or Carrier claim with DX codes during the 1-yr period	
Diabetes			At least 1 inpatient, SNF or HHA claim or 2 HOP or Carrier claims with DX codes during the 2-yr period	
Glaucoma	,		At least 1 Carrier claim with DX codes during the 1-yr period	
Heart Failure	,	404.13, 404.93, 428.0, 428.1, 428.20, 428.21, 428.22, 428.23,	At least 1 inpatient, HOP or Carrier claim with DX codes during the 2-yr period	
Hip/Pelvic Fracture			At least 1 inpatient claim with DX code during the 1-yr period	

Algorithms	Reference Time Period (# of years)	Valid ICD-9/CPT4/HCPCS Codes <sup>1</sup>	Number/Type of Claims to Qualify <sup>2,3</sup>	Exclusions
Ischemic Heart Disease			At least 1 inpatient, SNF, HHA, HOP or Carrier claim with DX, Procedure or HCPC codes during the 2-yr period	
Osteoporosis	1 year	DX 733.00, 733.01, 733.02, 733.03, 733.09 (any DX on the claim)	At least 1 inpatient, HOP or Carrier claim with DX code during the 1-yr period	
RA/OA (Rheumatoid Arthritis/ Osteoarthritis)		DX 714.0, 714.1, 714.2, 714.30, 714.31, 714.32, 714.33, 715.00, 715.04, 715.09, 715.10, 715.11, 715.12, 715.13, 715.14, 715.15, 715.16, 715.17, 715.18, 715.20, 715.21, 715.22, 715.23, 715.24, 715.25, 715.26, 715.27, 715.28, 715.30, 715.31, 715.32, 715.33, 715.34, 715.35, 715.36, 715.37, 715.38, 715.80, 715.89, 715.98 (any DX on the claim)	At least 2 inpatient, SNF, HHA, HOP or Carrier claims with DX codes during the 2-yr period  Any combination of claims at least one day apart.	
Stroke / Transient Ischemic Attack	1 year	DX 430, 431, 434.00, 434.01, 434.10, 434.11, 434.90, 434.91, 435.0, 435.1, 435.3, 435.8, 435.9, 436, 997.02 (any DX on the claim)	, ,	If any of the qualifying claims have: 800 <= DX Code <= 804.9, 850 <= DX Code <= 854.1 in any DX position OR DX V57xx as the principal DX code, then EXCLUDE.

Algorithms	Reference Time Period (# of years)		Number/Type of Claims to Qualify <sup>2,3</sup>	Exclusions
Female Breast Cancer**	1 year	233.0 (any DX on the claim)	At least 1 inpatient or 2 HOP or Carrier claims with DX codes during the 1-year time period	
Colorectal Cancer	1 year	153.9, 154.0, 154.1, 230.3, 230.4	At least 1 inpatient or 2 HOP or Carrier claims with DX codes during the 1-year time period	
Prostate Cancer	1 year		At least 1 inpatient or 2 HOP or Carrier claims with DX codes during the 1-year time period	
Lung Cancer	1 year	1	At least 1 inpatient or 2 HOP or Carrier claims with DX codes during the 1-year time period	
Endometrial Cancer	1 year		At least 1 inpatient or 2 HOP or Carrier claims with DX codes during the 1-year time period	

<sup>&</sup>lt;sup>1</sup> Effective dates of these codes vary. Researchers may be interested in confirming the code(s) of interest in accompanying claims or assessment data files.

<sup>&</sup>lt;sup>2</sup> Carrier claims refers to RIC "O" claims (not DMERC RIC "M" claims), and excludes any claims for which line item Berenson-Eggers Type of Service [BETOS] variable equals D1A, D1B, D1C, D1D, D1E, D1F, D1G, or O1A. The categories with D1 in the first two positions are DME categories. The O1A category includes ambulance services. The intent of the algorithm is to exclude claims where the services do not require a licensed health care professional. SNF refers to skilled nursing facility; HHA refers to home health agency; HOP refers to hospital outpatient.

<sup>\*\*</sup>The diagnosis codes included in this definition are for female breast cancer only (male breast cancer codes are not included). Researchers may be interested in confirming gender with the accompanying beneficiary data file due to the potential miscoding of diagnosis codes.