

# FRAMINGHAM HEART STUDY CODING MANUAL

## *Cancer*

COHORT: Original Cohort, Offspring, Generation 3, New Offspring Spouse

TIME INTERVAL: Cancer Cases Reviewed through December 2010

DATASET NAME: **vr\_cancer\_2010\_m\_0600d\***

# OBSERVATIONS: 4971

**\* This dataset was modified to include only those cancer cases occurring on or before 12/31/2007.**

All known cancer cases were validated using medical records (pathology reports). Occasionally a pathology report was unavailable. In these cases, other confirming evidence was used (see DIAG\_TYP variable). This dataset contains only primary cancers (ICD-O behavior codes of 2 or 3). This dataset does not include metastatic cancers (ICD-O behavior code of 6). Only first occurrence of site and cell type is included in this data set.

Most cancer records were reviewed using the FHS version of the 1976 ICD-O-1 code book. Refer to ICD-O-3 for details of morphology codes of lymphomas and several other morphologies.

To exclude non-melanotic skin cancers from this dataset:

if TOPO = 173 and HIST < 8720 then delete

if TOPO = 173 and HIST > 8790 then delete

For a unique cancer case use: IDTYPE, ID, TOPO, LOCATION, HIST, BEHAVIOR and GRADE.

The value ranges, number of observations and cohorts stated in this manual are based on the original dataset. In some cases, observations may be deleted due to participant consent form restrictions or cohort participation. If observations have been deleted from this dataset, the value ranges, number of observations or cohorts may differ from those stated in this manual.

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### Variable

### Description

#### IDTYPE

Framingham Heart Study cohort identifier

0 = Original Cohort

1 = Offspring Cohort

2 = New Offspring Spouse Cohort

3 = Generation 3 Cohort

7 = Omni Group 1 Cohort

72 = Omni Group 2 Cohort

<u>Variable</u>	<u>Description</u>
ID	Framingham Heart Study participant ID number  Deleted to preserve confidentiality, use random id (PID)
PID	Random ID Random ID replace Framingham ID to preserve confidentiality
DIAG_TYP	Method of diagnosis - represents the basis of diagnosis 1 = microscopically confirmed 2 = clinically diagnosed 3 = death certificate only
D_DATE	Diagnosis date of tumor or cancer (units: Number of days since exam 1)  NOTE for D_DATE: Date was taken from pathology reports if available. Date was taken from other records if pathology report was not available or if diagnosis was made before the biopsy then the variable EXACT = 1. If month and year were available, but not day, the 15th was used as the day, and the variable EXACT = 1. If only the year was available, JULY 4 was used as the month and day, and the variable EXACT = 1. In some cases if biopsy was done at autopsy, then D_DATE was changed to precede DATE OF DEATH by one day.
EXACT	Type of Date - diagnosis date qualifier - indicates the quality of D_DATE 0 = Month, date and year of diagnosis date taken from pathology report or other test report. 1 = Estimated diagnosis date as described in variable D_DATE

Variable

Description

TOPO

Topography - describes site - corresponds to first three digits of topography code WHO ICD-O

- 140 = lip
- 141 = tongue
- 142 = major salivary gland
- 143 = gum
- 144 = floor of mouth
- 145 = other and unspecified parts of mouth
- 146 = oropharynx
- 147 = nasopharynx
- 148 = hypopharynx
- 149 = pharynx and ill-defined sites in lip, oral cavity and pharynx
- 150 = esophagus
- 151 = stomach
- 152 = small intestine
- 153 = colon
- 154 = rectum, rectosigmoid junction, anal canal and anus, not otherwise specified
- 155 = liver and intrahepatic bile ducts
- 156 = gallbladder and extrahepatic bile ducts
- 157 = pancreas
- 158 = retroperitoneum and peritoneum
- 159 = other and ill-defined sites within digestive organs and peritoneum
- 160 = nasal cavities, accessory sinuses, middle ear and inner ear
- 161 = larynx
- 162 = trachea bronchus, and lung
- 163 = pleura
- 164 = thymus, heart and mediastinum
- 165 = other and ill-defined sites within respiratory system and intrathoracic organs
- 169 = hematopoietic and reticuloendothelial systems
- 170 = bones, joints and articular cartilage
- 171 = connective, subcutaneous and other soft tissues
- 173 = skin (excludes skin of labia majora, skin of vulva, skin of penis and skin of scrotum)
- 174 = female breast (excludes skin of breast)
- 175 = male breast (excludes skin of breast)

<u>Variable</u>	<u>Description</u>
	179 = uterus, not otherwise specified
	180 = cervix uteri
	181 = placenta
	182 = corpus uteri or endometrium
	183 = ovary, fallopian tube and broad ligament
	184 = other and unspecified female genital organs
	185 = prostate gland
	186 = testis
	187 = penis and other male genital organs
	188 = urinary bladder
	189 = kidney and other urinary organs
	190 = eye and lacrimal gland
	191 = brain
	192 = other and unspecified parts of the nervous system (excludes peripheral nerves, sympathetic and parasympathetic nerves and ganglia)
	193 = thyroid gland
	194 = other endocrine glands
	195 = other ill-defined sites
	196 = lymph nodes
	199 = unknown primary site

## LOCATION

Location - describes subdivision of site - corresponds to fourth digit of topography code WHO ICD-O

0 - 9

Variable

Description

HIST

Histology or morphology - describes cell histopathology - corresponds to four digit morphology code WHO ICD-O

8000 - 9990

NOTE for HIST:

Additional Morphology codes from the ICD-O-3 code book are added to the FHS cancer coding system:

- 8046 - Non-small cell carcinoma
- 8130 - Papillary transitional cell carcinoma
- 9590-9769 - Hodgkin's and non-Hodgkin lymphomas
- 9590-9596 - Malignant lymphomas, NOS or diffuse
- 9650-9667 - Hodgkin's lymphoma
- 9670-9729 - Non-Hodgkin's lymphomas
- 9670-9699 - Mature B-cell lymphomas
  - 9673 - Mantle cell lymphoma
  - 9680 - Malignant lymphoma, large B-cell, diffuse or malignant lymphoma, large cell
- 9700-9719 - Mature T-cell and NK-cell lymphomas
- 9727-9729 - Precursor cell lymphoblastic lymphomas
- 9731-9734 - Plasma cell tumors
- 9740-9742 - Mast cell tumors
- 9750-9758 - Neoplasms of histiocytes and accessory lymphoid cells
- 9760-9769 - Immunoproliferative diseases

BEHAVIOR

Behavior - describes the degree of malignancy - corresponds to the fifth digit behavior code WHO ICD-O

- 0 = benign
- 1 = uncertain, borderline
- 2 = carcinoma in situ, non-invasive
- 3 = malignant, primary site
- 6 = malignant, metastatic site
- 9 = malignant, uncertain whether primary or metastatic site

NOTE for BEHAVIOR:

This set contains only cases where BEHAVIOR = 2 or BEHAVIOR = 3. Metastatic code (BEHAVIOR = 6) was not used; rather the location of the primary site was used. If the primary site is unknown, the code 199 is used for the site.

Variable

Description

GRADE

Grade - corresponds to code for histologic grading and differentiation WHO ICD-O

1 = Grade I - well-differentiated, differentiated

2 = Grade II - moderately well-differentiated, moderately differentiated

3 = Grade III - poorly differentiated

4 = Grade IV - undifferentiated, anaplastic

9 = Grade or differentiation not determined, stated, or applicable

ESTRGN

Estrogen receptors

0 = negative

1 = weakly positive

2 = positive

8 = not done

. = unknown or collected on a form that did not contain this variable

NOTE for ESTRGN:

This variable was added to the data collection form in version 10-01-07.

PRGSTRN

Progesterone receptors

0 = negative

1 = weakly positive

2 = positive

8 = not done

. = unknown or collected on a form that did not contain this variable

NOTE for PRGSTRN:

This variable was added to the data collection form in version 10-01-07.

<u>Variable</u>	<u>Description</u>
H2NI	<p>HER2NEU (human epidermal growth factor receptor 2) by IHC (immunohistochemistry)</p> <p>0 = negative, 0 or 1+</p> <p>1 = weakly positive, 2+</p> <p>2 = positive, 3+</p> <p>8 = not done</p> <p>. = unknown or collected on a form that did not contain this variable</p> <p>NOTE for H2NI: This variable was added to the data collection form in version 10-01-07.</p>
H2NF	<p>HER2NEU (human epidermal growth factor receptor 2) by FISH (fluorescence in situ hybridization)</p> <p>0 = unamplified</p> <p>1 = amplified by FISH</p> <p>8 = not done</p> <p>. = unknown or collected on a form that did not contain this variable</p> <p>NOTE for H2NF: This variable was added to the data collection form in version 10-01-07.</p>
TISSUE_1	<p>Tissue #1 related to Gleason score for prostate cancer</p> <p>1 - 5</p> <p>. = unknown or collected on a form that did not contain this variable</p> <p>NOTE for TISSUE_1: Classifying prostate cancer cells in terms of how abnormal they appear when examined under a microscope. Grades range from 1 to 5 with 1 being the least aggressive and 5 the most aggressive. This variable was added to the data collection form in version 10-01-07.</p>

<u>Variable</u>	<u>Description</u>
TISSUE_2	<p>Tissue #2 related to Gleason score for prostate cancer 1 - 5 . = unknown or collected on a form that did not contain this variable</p> <p>NOTE for TISSUE_2: Classifying prostate cancer cells in terms of how abnormal they appear when examined under a microscope. Grades range from 1 to 5 with 1 being the least aggressive and 5 the most aggressive. This variable was added to the data collection form in version 10-01-07.</p>
GLEASON	<p>Gleason score: classifying prostate cancer cells 2 - 10 . = unknown or collected on a form that did not contain this variable</p> <p>NOTE for GLEASON: Gleason score (total between 2-10) TISSUE_1 + TISSUE_2 = GLEASON If only GLEASON is given, TISSUE_1 and TISSUE_2 = "." If no scores are given, GLEASON = "." and TISSUE_1 and TISSUE_2 = "." This variable was added to the data collection form in version 10-01-07.</p>
VERSION	<p>Version date of the data collection form . = Unknown</p> <p>NOTE for VERSION: Prior to 10-01-2007 annotated forms did not have version dates VERSION deleted - used for administrative purposes only</p>

Variable

Description

INDICATOR

Indicates ICD-O code book used for coding

0 = ICD-O-1 code book

1 = ICD-O-3 code book

2 = ICD-O-3 code book using 'Coding Guidelines for Topography and Morphology'

NOTE for INDICATOR:

If the "INDICATOR" variable is set to "0" this implies that this record passed all edit checks by using the ICD-O-1 code book. If the "INDICATOR" is set to "1" additional codes from ICD-O-3 code book were used. See note under "HIST" variable. If the "INDICATOR" is set to "2" these records were re-reviewed and overrode the rules from ICD-O-3 code book. These coding rules can be found in the front of the ICD-O-3 code book.