

Identify

SHARED RESPONSIBILITIES

Tools for Improving Quality of Care for
Children with Special Health Care Needs

Summary Description of Clinical Risk Groups (CRGs)

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Clinical Risk Groups (CRGs) is a relatively new system that classifies individuals into mutually exclusive categories and, using enrollment, claims or other encounter level data, assigns each person to a severity level if s/he has a chronic health condition. The CRGs can be used to:

- 1) Track congenital/chronic disease prevalence rates
- 2) Profile health service utilization and physician practices
- 3) Develop pricing and capitation risk adjustment
- 4) Link to measures of patient satisfaction/quality tracking





Summary Description of Clinical Risk Groups (CRGs)

The CRG classification system requires certain data elements and in linkable form. For data to be linkable, each individual must have a unique individual identifier and every record must be tied to a unique identifier. Four sets of data elements are required to successfully implement the CRGs:

1. enrollee descriptors (from enrollment files)
2. diagnoses data (from claims or other equivalent encounter level data)
3. procedure data (from claims or other equivalent encounter level data)
4. resource data (from claims or imputed from encounter level data)

The first three sets of data elements are required to classify individuals. The fourth data element, resource use, is not required to classify individuals but is necessary if the CRGs are to be used for any applications involving resource use. Information on resource use must be maintained at the level of detail required for the intended application. For some applications, total resource use is sufficient, while for other applications, service-specific costs or measures of health care utilization are necessary.

The CRG software reads all ICD-9-CM diagnosis codes from all health care encounters except those associated with providers known to frequently report unreliable codes (e.g., non-clinician providers and ancillary testing providers). It assigns all diagnosis codes to a diagnostic category (acute or chronic) and body system and assigns all procedure codes to a procedure category. Each individual is grouped to a hierarchically defined core health status group, and then to a CRG category and severity level if chronically ill.

There are nine core health status groups: catastrophic, metastatic malignancy, chronic triplet, multiple significant chronic pair, single dominant/moderate chronic, multiple minor chronic pair, single minor chronic, significant acute, and healthy (including non-users). There are 269 CRG categories and with severity levels, a total of 1,061 cells. The chronic condition categories are divided into severity levels – either two, four or six severity levels depending upon type of condition. Severity is defined with respect to expected disease state and costliness of care in the upcoming twelve month time period. The significant acute categories are divided into single and multiple significant acute categories. All other individuals are classified as healthy. As part of its development, CRGs were tested for three population groups - - Medicare, Medicaid age 0-64 years, and private sector insured age 0-64 years.

The CRG definition of a chronic health condition contains three components: (a) physical, mental, emotional, behavioral or developmental disorder; (b) expected to last at least 12 months or longer or having sequelae that last at least 12 months longer; and (c) requires ongoing treatment and/or monitoring. The CRG definition of a significant acute condition is a serious acute illness that places the individual at risk in the future for needing services of an amount and type greater than that for not chronically ill persons and possibly at risk for an ongoing chronic health condition. In the CRG logic, an acute illness is only classified as a significant acute if it occurred in the most recent six months of the base year time period.

The CRG grouper, in addition to assigning each person to a mutually exclusive diagnostic category, returns information on all diagnostic and procedure categories recorded during the time period. This is intended for management use. Demographic variables are not used to assign individuals to CRG categories but can be used in conjunction with CRGs. In fact, this is expected particularly for individuals classified to CRG categories for healthy, significant acute and less serious chronic conditions.

The full CRG system contains a large number of categories. This is intended to make the system useful for clinical and management purposes and applicable to all age individuals. The CRG categories can also be aggregated and joined with adjacent CRGs. The CRG software provides a method for doing this through the Aggregated CRGs (ACRGs) or alternately each user can define their own roll-ups. The ACRGs contain 3 levels of aggregation: body system (380 cells); super body system (146 cells) and core health status group (37 cells). Depending upon the size of the covered population and the intended applications the user may wish to work with the full CRG categorization or the ACRGs, or both.

A set of Alternate Aggregated CRGs (AACRGs) has been developed by NACHRI and is intended to maintain greater specificity in its rollups for categories that are high volume or otherwise important to a Medicaid population. It contains 5 levels of aggregation: body system (451 cells), super body system (238 cells), core health status group but with separate mental health and physical health categories (79 cells), core health status group (40 cells), and core health status group with rollup for catastrophic/metastatic malignancy/chronic triplet categories (29 cells).

The commercial software for CRGs is developed by 3M Health Information Systems and was released in early March 2000. It is currently written to run on three computer platforms -- IBM mainframe, Hewlett Packard Unix, and Windows NT based PCs. In order to apply the CRG software, each user must have a full service claims or encounter data base or partner with an organization that has such a data base.

For information on obtaining a CRG commercial software license, contact Mr. Clyde Morris, 3M Health Information Systems, 1000 Mansell Exchange West, Suite 250, Alpharetta, GA 30022, 800/447-3828 Ext. 6628 or e-mail at cymorris@mmm.com.

For additional information on CRGs or a copy of NACHRI's document, "Design, Uses and Illustration of CRGs," contact Ms. Lisa Turner, NACHRI, 401 Wythe Street, Alexandria, VA 22314, 703/684-1355 ext. 7047 or e-mail at ltturner@nachri.org.

Published Articles and Documents by NACHRI Staff and Physician Consultants on Clinical Risk Groups (CRGs)

Published Articles

Muldoon J, Neff J, Gay J. Profiling the Health Service Needs of Populations Using Diagnosis-based Classification Systems. *Journal of Ambulatory Care Management*. July 1997, Vol. 20, No. 3, 1-18.

Gay J, Muldoon J, Neff J. Profiling the Health Service Needs of Populations: Description and Uses of the NACHRI Classification of Congenital and Chronic Health Conditions. *Pediatric Annals*. November 1997, 655-663.

Goldfield N, Averill R, Eisenhandler J, Hughes J, Muldoon J, et.al. Prospective Risk Adjustment Classes. *Physician Profiling and Risk Adjustment, Edition 2*. N. Goldfield, M.D. 1999, 523-540.

Neff J, Muldoon J, Gay J. Profile of the SSI Population Enrolled in Washington State's Medicaid Program with a Diagnosis-Based Classification System: Managed Care Policy Implications. *Journal of Cost and Quality, NHCQA*, March 2001, Volume 7, #1.

Neff J, Sharp V, Muldoon J, Graham J, Popalisky J, Gay J. Identifying and Classifying Children with Chronic Conditions Using Administrative Data with the Clinical Risk Group Classification System. *Ambulatory Pediatrics*. February 2002.

Other NACHRI Documents

NACHRI. Description of Data Element Requirements for Clinical Risk Groups. October 1999.

NACHRI. Design, Uses and Illustrations of Clinical Risk Groups (includes population based profile of Washington Medicaid FY 1992-FY 1993). February 2000.

NACHRI. Description of Alternate Aggregated Clinical Risk Groups for Medicaid Population. March 2000.

NACHRI and 3M Health Information Systems. Introductory Chapters to Clinical Risk Groups Definitions Manual. March 2000.