

Lexicon

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Adjusted Clinical Group (ACG) (formerly, Ambulatory Care Group): Refers in general terms, to the Johns Hopkins University ACG Case Mix Adjustment System or, more specifically, to an ACG category. People are assigned to mutually exclusive ACG categories by an ACG Grouper based on the compliment of diagnosis codes recorded on administrative claims over an extended period of time and each person's age and gender. The ACG System groups people into categories based on similar patterns of morbidity (see note below) and the corollary expected resource use. The newest version of the ACG grouper, Version 4, has 82 to 93 ACG categories or "cells" (depending on how it is configured by the user).

Although the term "illness burden" is sometimes used, the term "illness" refers to a person's subjective experience of alterations in comfort, well being and functioning. Diagnosis codes record morbidity, rather than illness. Therefore, "morbidity" is the more accurate term.

ACG Cell - A single ACG category. This may be a single dimension cell (ACG category alone) or it may be a combination of dimensions, for example, ACG by health plan product by geographic region. Resource use/cost weights are usually determined for each cell based on the distribution of resource use for persons in that cell (either within the user's population or some other benchmark or reference set).

ACG Grouper - The application software that assigns people to ADG and ACG categories based on the input of the diagnosis codes from claims history (usually excluding laboratory and radiology claims), and the age and gender for each person.

There are different editions of the grouper reflecting advances in methods that have been incorporated into successive versions by Johns Hopkins University.

ADGs - Formerly called Ambulatory Diagnostic Group. Now simply referred to as ADGs. The non-mutually exclusive diagnostic morbidity clusters that summarize the clinical dimensions of duration (acute, recurrent, chronic), severity (minor/stable, major/unstable), differentiation (symptoms versus disease), and etiology (infectious, injury, other). The ACG Grouper is able to recognize all diagnosis codes (excluding E-codes) and assign individuals to ADG categories based on the complement of diagnosis codes accumulated on administrative claim records. Although each diagnosis code is assigned to only one ADG, a person will have from zero to 32 different ADGs during a single span of time. The ADGs are the building blocks for the unique ACG assignment. Analysts sometimes use ADGs as 32 "dummy-variables" in multivariate regression models.

Aggregated Diagnostic Cost Group (DCG) Category – The most aggregated groupings within the DCG clinical classification system. There are 31 Aggregated Condition Categories.

Allowed Charges - Charges for services rendered or supplies furnished by a health care provider that qualify as covered health care expenses. These charges include both member and plan liability.

Benchmark- This term is used in several ways. It can refer to an external benchmark, such as a national reference data set, or an internal benchmark within a population. Normative benchmarks are based on assumptions about the ideal nature of the population or practice patterns from which the benchmark values are drawn. It can also refer to the first or baseline measurement of a characteristic, i.e. morbidity, of a population. (See Reference Population in the Lexicon).

Billed Charges- The fees or costs for health care services provided to a member, submitted by a health care provider.

Capitated Services - Services are provided under a system based on a fixed per-member pre-payment to providers. Because administrative claims data may not be available, the morbidity of populations served by capitated providers may be less well documented compared to populations served under a fee-for-service reimbursement system. The limitations of incomplete encounter data must be considered when diagnosis-based risk adjustment is implemented in a capitated environment.

Chronic Illness and Disability Payment System (CDPS) - A diagnostic classification system that Medicaid programs can use to make health-based capitated payments for TANF and disabled Medicaid beneficiaries. CDPS was developed by researchers (Rick Kronick et al) at the University of California, San Diego, using claims records for nearly 4 million Medicaid beneficiaries in seven states. CDPS includes 20 major categories of diagnoses, which correspond to body systems or type of diagnosis. Most of the major categories are further divided onto several subcategories according to the degree of increased expenditures associated with the diagnosis. A copy of the article describing CDPS, published in the Spring 2000 issue of The Health Care Financing Review, can be downloaded at <http://www.medicine.ucsd.edu/fpm/cdps>.

Claims and Diagnosis Run Out - The length of time allowed in order to capture paid or adjudicated claims and diagnosis history following an incurred time period. For example, in collecting the incurred claims history for 1997, 3 months run out (January through March of 1998) may be necessary in order to ensure that nearly all of the 1997 incurred claims have been submitted and processed. This is also stated as claims incurred in 1997 and paid through March of 1998. The user must trade off “completeness” with “recentness”. As a rule-of-thumb, three months is generally a sufficient run-out period. The run out required will differ by plan and by the accuracy required for the particular application.

Condition Category - Groupings of diagnoses based on resource use and body system. There are 118 Condition Categories and they represent the intermediate level of grouping in the DCG clinical classification system. Hierarchies are imposed on the Condition Categories prior to calculating expected costs and relative risk scores.

Continuous Enrollee - A plan member with continuous enrollment for a defined interval, such as 6 or 12 months.

Coordination of Benefits (COB) -: This usually refers to the dollars or cost paid by a secondary health plan. The COB dollars may or may not be included in the development of cost weights for in diagnosis-based risk adjustment models.

Current Procedural Terminology, fourth edition (CPT-4) - A listing of descriptive terms and identifying codes for reporting medical services and procedures performed by physicians and other providers. The CPT-4 is published by the American Medical Association.

Diagnosis - 1. The term denoting the disease or syndrome a person has or is believed to have. 2. The use of scientific and skillful methods to establish the cause and nature of a person's illness. The value of establishing a diagnosis is to provide a logical basis for treatment and prognosis. [from Taber's Cyclopedic Medical Dictionary, 18th edition].

A written description of the reason(s) for the procedure, service, supply or encounter [from the ICD-9-CM manual].

Diagnostic Cost Group (DCG) -. Refers to the family of diagnosis-based risk adjustment models developed by researchers at Boston University, Brandeis University and Health Economics Research. The DCG methodology uses information recorded on medical claims (diagnoses codes and in some cases demographics) to classify individuals into the DCG clinical classification system. Cost weights are applied to the clinical classifications to generate predictions of expenditures and relative risk scores at both the individual member and each user-defined group (plan type, region or account, etc.). Individuals are also grouped into mutually exclusive groups, called DCG Categories, based on overall risk scores (expected costs.).

There are concurrent DCG models that use Year one diagnoses to predict Year one expenses. They are useful for provider profiling and other retrospective analyses. Prospective models use Year one diagnoses to predict Year two costs. Prospective models are used for care management (population stratification) and payment/budgeting. .

The latest version of the DCG model software, DxCG Software Release 5.1, includes separate models for Medicaid, Medicare and Commercial populations.

DCG Hierarchical Condition Category model (DCG/HCC) – Also called all encounter DCG model since it uses diagnoses from all sites of service.

Diagnostic Cost Group (DCG) Category – mutually exclusive categories within the DCG models defined based on total annual predicted expense. DCG Categories, which can also be thought of as "Morbidity Levels," are expressed in units of \$1000 that mark the lower range of predicted costs

DxGroup - Clinically homogeneous groups of ICD-9-CM diagnosis codes in the DCG models. There are 543 DxGroups and they represent the most disaggregated level of grouping in the DCG clinical classification system. DxGroups are grouped into Condition Categories.

Encounter Data -A record of services provided under a capitation plan. Encounter data differ from claim data, in that they are not tied to payment and may not follow the standard claims submission format (UB-92 or HCFA-1500).

Episode Treatment Groups (ETG) - A classification methodology for organizing and structuring episodes of treatment so that they can be measured for cost and utilization efficiency. Each episode is a block of one or more medical services received by an individual during a period of relatively continuous contact with one or more providers of service, in relation to a particular medical problem or situation. They were presented by Solon et al in the American Journal of Public Health in 1967 (57:401-408). Services for an episode of care are extracted from claims data and sorted into management, surgical, ancillary, facility or pharmacy services. Management and surgical service form an anchor record. Related claims are attached to this record until a clean period (no treatment) of variable length occurs, resulting in the formation of an episode.

Developing episodes of care allows comparison between providers based on their own specialty and allows for the development of a case mix comparison and efficiency comparison among providers.

ETGs can be rolled together into one of 23 Major Practice Categories (MPCs). The methodology has been developed and licensed by Symmetry Health Data Systems and has been commercialized by several decision support vendors.

HCFA-1500 - Health Care Financing Administration uniform health insurance claim form 1500: The standard form used to submit professional service bills. This is used by providers to submit professional claims to health care plans and insurers. The HCFA -1500 reports services by CPT-4 codes and includes the associated ICD-9-CM diagnosis codes.

International Classification of Diseases, 9th Revision, Clinical Modification 5th edition (ICD-9-CM) - A statistical classification system that arranges diseases and injuries into groups according

to established criteria. Most ICD-9-CM codes are numeric and consist of three, four, or five numbers and a description.

The ICD-9-CM is based on the official version of the World Health Organization's 9th Revision, International Classification of Diseases. ICD-9 is designed for the classification of morbidity and mortality information for statistical purposes, and for indexing of medical records by disease and operations, and for data storage and retrieval.

The ICD-9-CM includes diseases and procedures. It is the standard source for diagnostic codes for both facility and professional bills and for procedures for facility bills in the United States.

ICD-10 has been prepared and is being used in Europe. It has not been implemented yet in the United States.

Members - Members include the person subscribing to the health care plan plus all of the subscriber's dependents that are covered by the plan. Most risk adjustment applications use a count of members, rather than subscribers.

Member Months - The total number of months that an individual member (or the aggregation for a group of members) has been enrolled in a health care plan. This is an alternative measure to a count of persons or subscribers or members. It measures the length of time that a person has been enrolled in a health plan. For example, a health plan may have 10 members in a particular group, physician panel or risk category. Those 10 members would account for 120 member months if all were enrolled for a full calendar year and for 60 member months if only enrolled for half a year.

Member/Subscriber Liability - Out of pocket expenses paid by the member for health care services. This is usually some combination of copay and/or deductible amounts that are not covered by the health plan.

Morbidity Groups - Commonly refers to the aggregation of ACGs based on a similar number of morbidity conditions. The original set of six morbidity groups was based on the average number of ADGs within each ACG (where the number of ADGs is 1-2, 3, 4-5, 6-9, and 10+ and. This was first reported by Starfield, et al., "Ambulatory Care Groups: A Categorization of Diagnosis for Research and Management", Health Services Research 26:1 (April 1991) and later developed as part of an application software by Codman Research Group, Andover, Massachusetts. Typically, morbidity groups are used with relative weights. (Also, see RUBs in the Lexicon.)

Normalization- In the context of this document, refers to how cost weights are generated. If contracting practice or other factors impact payment to providers, then it may be advisable to normalize or reprice services reported on claims to a standardized fee schedule rather than using the reported cost. Sometimes called Calibration.

Patients- From the perspective of the health plan, plan members who access services. Patient counts may serve as the basis for risk adjustment.

Principal Inpatient DCG model (PIP-DCG) - DCG model that uses principal inpatient diagnoses to classify members into risk groups. HCFA uses a PIP-DCG to pay Medicare+Choice organizations.

Prospective Models - Using information about a population from Year one, to make a projection about the service utilization/cost for the same population for Year two. Generally, using diagnosis information from time 't' to predict expenditures in time 't+1'. Prospective Analysis may also be referred to as Predictive Analysis.

Provider Profiling - Any of several methods for examining and comparing the cost or service use per patient, or quality of care, across provider units. The unit of analysis may be the physician or medical groups or care systems. Frequently it is useful in provider profiling to control for or adjust for differences in the morbidity of the patients served by the provider(s).

Reference Population - The population that is used as the common comparison point or source of cost weights in an analysis of sub populations or study populations. Frequently this is the average experience for the sum of all the sub populations being studied. For example, The reference population for a study of Twin Cities based primary care clinics could be the sum of the experience for all of the clinics. Note: Sometimes Reference and Benchmark are used interchangeably. Benchmark is often a point of reference and not a gold standard against which to be compared. (See Benchmark in the Lexicon.)

Repricing- The process of using claim codes applied against standard prices to eliminate variation caused by unit prices that may vary by provider due to contract differences. It can also be applied to eliminate differences in pricing across years.

Retrospective Models - Using the information about a population in Year one to explain variation in cost or utilization for subpopulations (study populations) in Year one. Provider performance or profiling applications typically employs a retrospective methodology. Retrospective analysis has also been called Concurrent Analysis, because morbidity and resource use are assessed during the same time period.

Risk Assessment – Comparing the morbidity of individuals or populations and related differences in services or health care costs. Alternatively, the process of by which individuals are measured and categorized on the basis of their health status or expected risk for using health care services. The concept of risk assessment is related to, but distinct from, the broader concept of risk adjustment. Adjustment implies that an action of some sort will be taken based on the categorization information. Assessment does not imply action, only measurement.

Risk Adjustment (general use) - The process by which the health status of the population is taken into consideration when assessing resource use, provider performance or provider payments.

Risk Adjustment (technical or statistical use) - A statistical procedure that accounts for differences in the morbidity of populations. This is usually a direct or indirect standardization process, or multivariate regression adjustment, used in epidemiology or demography.

Rule-Out, Suspected, and Provisional Diagnoses - Diagnoses that are being explored by the provider as possible explanations for presenting symptoms or conditions. These are frequently used as the principal diagnosis code on diagnostic imaging and clinical laboratory service claims, which is the reason why these claims should be excluded from ACG or DCG assignment.

Relative Value Unit (RVU) - National uniform relative values assigned to professional CPT-4 service codes. The values assigned to each CPT-4 code are based on the resources required to provide the service. Resource Based RVs in the RVUs have been used since 1992 to determine Medicare payments to providers. The RVUs offer the basis for a dollar neutral measure of professional services resource use. To obtain a dollar amount, RVUs must be multiplied by a conversion factor.

Resource Utilization Band (RUB) - Aggregations of ACGs that have similar resource use. They are iso-resource groupings of the 52 (Version 3.0) or 93 (Version 4.0) ACG categories. There is not a standard set of RUBs. Each organization develops its own RUBs based on the particular distribution of resource use across ACGs.

Study Population - The population(s) that is of interest in comparing risk adjusted utilization or morbidity to a reference population. It is frequently, but not always, a subpopulation of a reference population. For example, the population of plan members assigned to the Clinic A (study population) compared to the population of plan members assigned to all of the metro area plan network clinics (Reference Population).

Subscribers - Person responsible for payment of the health insurance premium or who's employment is a basis for eligibility of health insurance coverage.

Trend Analysis- Comparing population costs or utilization across time, holding constant the morbidity of the populations or adjusting for the change in morbidity. Trend analysis is usually multi year in nature.

Truncation- (Also called “capping”). Refers to the limitation of cost or services included in the observed value per person or in the determination of weights. Member observed dollar or service use greater than the truncation limit is set to the truncation value. Truncation is used to limit the effect of high costs or utilization for one plan member or patient and the cumulative effect of such skewed utilization for a population. It may be based on the health care plan stop-loss levels (the level at which the plan assumes all or some risk), payment capping levels, or outlier levels of cost

or utilization. For example, a risk adjusted analysis of observed versus expected costs may limit the per person annual costs to a maximum of \$75,000. Truncation or capping can apply to specific services or types of service, i.e. a maximum of \$20,000 for prescription drugs per person.

Truncation can also refer to a limitation of the number of digits carried for diagnosis codes. For example, a full ICD-9-CM diagnosis code may be submitted with five digits, but the plan or provider may only carry three digits on the claims or encounter history. Truncating ICD-9-CM codes reduces variation in morbidity and may lower the overall measured morbidity of a population.

Uniform Bill 92 (UB-92) - The standard form used to submit facility service bills. This is used by providers to submit facility-based claims to health care plans and insurers. Each claim or bill must be accompanied by ICD-9-CM principal and secondary diagnosis codes describing the condition(s) being treated.

Weights - The values assigned to risk cells (ACGs, RUBs, RACs, MRACs, Morbidity Groups, HCCs, etc.). The weights may be based on dollars or utilization measures derived from the average experience of a reference or benchmark population. They may also be relative values that are representative of the magnitude and order of morbidity linked to the risk cells. Weights are used to derive expected costs or utilization for study populations. They are also used to measure differences in the morbidity of populations. It is useful to distinguish between Concurrent Weights and Prospective Weights.