

# MedInsight Chronic Conditions Hierarchical Groups (CCHGs)



MedInsight® Chronic Conditions Hierarchical Groups (CCHGs) is a unique clinical care-based methodology for enhancing population health management based on patient and chronic condition information. The MedInsight CCHGs tool is designed to more accurately identify cost trend drivers and effectively allocate disease and care management resources. Coupled with traditional actuarial analyses, this highly effective, patient-centric model facilitates an information-driven management process that results in more effective care and lower administrative costs.

Until now, clinical analytics tools have been condition-centric, grouping utilization and cost based on conditions rather than persons. A person with more than one condition will have some utilization and costs grouped to condition A, while others will be grouped to condition B. MedInsight CCHGs provides a patient-centric model that captures 100% of a person's healthcare experience while keeping all of a person's utilization and costs together. This tool reflects on the complex interaction that diseases have on one another and improves the accuracy of the identification of clinical conditions that drive trend.

## Methodology

MedInsight CCHGs assigns all members to one of 43 unique categories using a clinically relevant hierarchy that is based on the way physicians make treatment decisions. All utilization and cost is attributed to the member and their condition category rather than typical condition analytics that look at only the costs for the condition and ignore the acute care needs. MedInsight CCHGs enables the user to make smarter and more informed decisions on trend drivers for financial teams and can help medical management departments by more effectively allocating disease and care management resources. The CCHGs is an ideal analytic tool for segmenting and stratifying populations into actionable cohorts.

CCHGs is a population health tool in the MedInsight Tools portfolio, a suite of standalone analytic products developed and offered by the MedInsight team at Milliman. In working with our clients—health plans, at-risk providers/ACOs, employers, state governments, third-party administrators, and community health coalitions—we are keenly aware of the different business demands of each.

## The Unique Value of CCHGs

MedInsight CCHGs is a standalone software application that enables the user to focus care management interventions on the chronic conditions driving trend. This facilitates an information-driven management process that results in more effective care and lower administrative costs. The hierarchical categorization of patients within the MedInsight CCHGs tool is based on how physicians make treatment decisions, a unique part of our methodology.

The CCHGs software tool also offers the following advantages:

- Assigns all members to mutually exclusive categories on a month-to-month basis to align with standard actuarial data storage best practices
- Accounts for multi-morbid individuals as well by storing up to five CCHG levels of secondary condition classification
- Groups clinically similar patients into the same category
- Enables identification of key causes for utilization and cost trends
- Facilitates the development of population-based budgets
- Can be used to define real patient populations for measuring resource utilization, clinical quality, and other outcomes
- Groups individuals in a manageable number of categories; a simple and broad approach to start various rollup and drill-down analysis exercises
- Captures 100% of cost and resource utilization; all acute and chronic care is flagged at the claim level

## Improving Care

At its core, medicine is about treating patients. MedInsight CCHGs brings care back down to the patient level. By deconstructing trend and identifying drivers in a unique, new way that is both accurate and efficient, MedInsight CCHGs provides a better understanding of how to allocate disease and care management resources most effectively, to the benefit of doctors, hospitals, and patients alike.

FIGURE 1

CCHG Category	Allowed PPPM			Allowed PMPM				
	2008	2009	Trend	2008	2009	Change	Trend	Contribution to Trend
103 - Active Cancer	\$2,241.29	\$2,246.76	0.2%	\$58.21	\$60.58	\$2.38	4.1%	10.3%
113 - Hypertension (Includes Stroke & Peripheral Vascular Disease)	\$435.57	\$462.74	6.2%	\$26.68	\$29.02	\$2.34	8.8%	10.1%
106 - HIV	\$1,542.89	\$1,655.77	7.3%	\$2.25	\$4.45	\$2.20	97.7%	9.5%
132 - Healthy Female (16-40)	\$209.31	\$228.42	9.1%	\$28.40	\$30.43	\$2.03	7.1%	8.8%
116 - Neuro	\$848.98	\$938.08	10.5%	\$15.22	\$16.98	\$1.76	11.5%	7.6%
118 - Chronic Musculoskeletal/ Osteo Arthritis/ Osteoporosis	\$614.67	\$639.26	4.0%	\$21.82	\$23.26	\$1.44	6.6%	6.2%
119 - Other Mental Health/ Substance Abuse	\$543.67	\$568.42	4.6%	\$17.02	\$18.44	\$1.42	8.4%	6.2%
105 - Hepatitis/ Cirrhosis/ Post Transplant	\$1,050.70	\$1,152.72	9.7%	\$6.33	\$7.53	\$1.21	19.1%	5.2%
126 - Healthy Infant (0-1)	\$232.10	\$205.17	-11.6%	\$2.97	\$4.07	\$1.09	36.8%	4.7%
112 - Diabetes (no CAD)	\$619.43	\$634.14	2.4%	\$16.82	\$17.78	\$0.96	5.7%	4.2%
SubTotal for Top 10	\$8,338.62	\$8,731.48	4.7%	\$130.75	\$141.45	\$10.70	8.2%	46.3%
<b>Total for all CCHGs</b>	<b>\$28,584.57</b>	<b>\$28,717.79</b>	<b>0.5%</b>	<b>\$355.49</b>	<b>\$378.60</b>	<b>\$23.11</b>	<b>6.5%</b>	<b>100.0%</b>

FIGURE 2

### CANCER UTILIZATION OF TOTAL POPULATION

	Cancer Cases/1000			Cancer Allowed Unit Cost			Cancer Allowed PMPM				
	2008	2009	Trend	2008	2009	Trend	2008	2009	Change	Trend	Contribution to Total Trend
Emergency Hospital	7.7	7.7	0.6%	\$1,039	\$1,125	8.3%	\$0.66	\$0.72	\$0.06	8.9%	4.4%
Outpatient Surgery	18.4	16.2	-12.0%	\$2,487	\$2,631	5.8%	\$3.82	\$3.56	-\$0.26	-6.9%	-19.6%
Radiology	86.7	91.1	5.0%	\$1,127	\$1,259	11.6%	\$8.15	\$9.56	\$1.41	17.2%	104.9%
Pathology	100.8	105.3	4.4%	\$189	\$206	8.6%	\$1.59	\$1.80	\$0.21	13.4%	15.9%
Maternity - Nondelivery	0.8	0.8	-9.8%	\$386	\$292	-24.4%	\$0.03	\$0.02	-\$0.01	-31.8%	-0.6%
Pharmacy and Blood	28.0	27.2	-3.1%	\$3,594	\$3,678	2.4%	\$8.39	\$8.32	-\$0.07	-0.8%	-5.1%
Cardiovascular	4.6	4.8	5.0%	\$470	\$441	-6.1%	\$0.18	\$0.18	\$0.00	-1.5%	-0.2%
PT/OT/ST	14.3	14.2	-1.1%	\$289	\$309	7.0%	\$0.34	\$0.37	\$0.02	5.9%	1.5%
Other	50.1	51.0	1.7%	\$233	\$225	-3.3%	\$0.97	\$0.96	-\$0.02	-1.7%	-1.2%
Outpatient Subtotal	311.5	318.2	2.1%	\$930	\$961	3.4%	\$24.14	\$25.48	\$1.34	5.6%	100.0%