

# Length of stay benchmarks for health plans

## Potential benefits

- Compare actual LOS with industry norms that have been used for nearly 50 years
- Trend performance over time to identify areas of improvement
- Identify potential cost-saving opportunities

## Features

- Regional, national and patient-specific benchmarks based on real experience<sup>1</sup>
- A data set containing more than 20 million inpatient discharges per year
- Benchmarks for MS-DRG and ICD-9-CM diagnosis and procedure codes at the 10th through 99th percentile
- Annual releases
- Mapping to ICD-10-CM enabled

## Patient-specific benchmarks based on real data

Length of stay (LOS) considerations are complex, but we believe managed-care providers must understand them in order to make informed care-related decisions. Although every patient is unique, groups of patients have statistical similarities that payers can analyze in asking themselves:

- Which LOS benchmarks are appropriate to use in precertifying or preauthorizing plan members?
- Can we identify cost savings by analyzing our LOS data retrospectively?
- What significant trends can be seen by comparing against external norms?

## Identify cost-savings opportunities

LOS benchmarks from IBM® Watson Health™ allow managed care companies, third-party administrators and Medicare and Medicaid providers to compare their actual LOS with regional, national and patient-specific benchmarks based on real experience.<sup>2</sup> Use the data, available by ICD-9-CM (with mapping to ICD-10 enabled) diagnosis or procedure code or diagnosis-related groups (DRG) and for specific payers and populations, to assist in areas such as utilization review, case management and benefits plans administration. Apples-to-apples comparisons with specific payers and populations can help identify cost savings.

# Base decisions on real experience

Built from one of the largest empirical databases of its kind, our LOS benchmarks use no clinical panel assumptions. Our benchmarks are based on actual experience, encompassing more than 20 million inpatient discharges a year. Annual releases allow you to trend experience and performance over time.

# Set new standards for improvement

Watson Health LOS benchmarks are one of the most comprehensive available. They include specialty benchmarks (MS-DRG, pediatric, psychiatric, commercial payer only, geriatric,

Medicare, Medicaid and worker's comp) that are specified as regional or national levels. Because the benchmarks are provided for MS-DRG and ICD-9-CM codes at the 10th through 99th percentile, you can continuously set new LOS standards to assess performance over time.

# Stay up to date

Our LOS benchmark files can be used as stand-alone reference tools or integrated into your decision support system. Either way, they can enhance your reimbursement review, as well as determination and adjudication and claims processing, and allow you to make more informed precertification decisions and develop future strategies.

Figure 1. Example summary of all patients in operation codes

Type of Patients	Observed Patients	Avg. Stay	Variance	Percentiles							
				10th	25th	50th	75th	90th	95th	99th	
<b>1. SINGLE DX</b>											
0-19 Years	369,526	2.2	3	1	2	2	3	3	4	7	
20-34	499,976	2.2	4	1	2	2	3	3	4	7	
35-49	132,254	2.6	12	1	1	2	3	4	6	15	
50-64	66,581	3.1	20	1	1	2	3	5	8	22	
65+	33,550	2.8	10	1	1	2	3	5	7	16	
<b>2. MULTIPLE DX</b>											
0-19 Years	1,295,599	4.4	60	1	2	2	4	7	14	48	
20-34	1,691,295	3.5	20	1	2	3	4	6	9	23	
35-49	1,613,545	4.5	34	1	2	3	5	9	14	30	
50-64	1,925,681	5.3	41	1	2	3	6	11	16	33	
65+	3,375,574	6.0	37	1	2	4	7	12	17	30	
<b>TOTAL SINGLE DX</b>	<b>1,101,887</b>	<b>2.3</b>	<b>6</b>	<b>1</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>3</b>	<b>4</b>	<b>9</b>	
<b>TOTAL MULTIPLE DX</b>	<b>9,901,694</b>	<b>5.0</b>	<b>38</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>6</b>	<b>10</b>	<b>15</b>	<b>32</b>	
<b>TOTAL</b>											
0-19 Years	1,665,125	3.9	49	1	2	2	3	6	12	42	
20-34	2,191,271	3.2	16	1	2	2	3	5	7	20	
35-49	1,745,799	4.4	33	1	2	3	5	9	13	30	
50-64	1,992,262	5.2	41	1	2	3	6	11	16	33	
65+	3,409,124	6.0	37	1	2	4	7	12	17	30	
<b>GRAND TOTAL</b>	<b>11,003,581</b>	<b>4.7</b>	<b>36</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>5</b>	<b>10</b>	<b>14</b>	<b>30</b>	

Because each patient is unique, we stratify patients by single or multiple diagnoses and age.

Total number of patients.

Observed Patients is the actual number of patient discharges. We derive length of stay figures from real patient data projected to represent the inpatient universe.

The variance shows how much individual patient lengths of stay ranged around the average.

Average length of stay, in days, calculated from the admission and discharge dates.

Length of stay (in days) by percentile document the statistical range of stays for each patient group, so you can determine the right length of stay for your patient.

## Get connected

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## About IBM Watson Health

Each day, professionals throughout the health ecosystem make powerful progress toward a healthier future. At IBM Watson Health, we help them remove obstacles, optimize efforts and reveal new insights to support the people they serve. Working across the landscape, from payers and providers to governments and life sciences, we bring together deep health expertise; proven innovation; and the power of artificial intelligence to enable our customers to uncover, connect and act — as they work to solve health challenges for people everywhere.

For more information on IBM Watson Health, visit: [ibm.com/watsonhealth](http://ibm.com/watsonhealth)

### Footnotes

1 The primary data source for LOS Benchmarks is the PIDD (Projected Inpatient Database) which is one of the largest U.S inpatient all payer databases of its kind containing approximately 23 million inpatient discharges annually. Our interpretation of “real experience” in this context, means that we derive the benchmarks using the discharge information, which is aggregated at a regional or national level to provide realistic benchmarks based on this data. Truven Health, 2018.

2 Ibid, 2018.

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