**Definition of Case Mix for hospitals**

**Case Mix Index (CMI)** is a relative value assigned to a diagnosis-related group (DRG/MS-DRG) of patients in a medical care environment. The CMI value is used in determining the allocation of resources to care for and/or treat the patients in the group.

Patients are classified into groups having the same condition (based on Principal and Secondary Diagnoses, Procedures, Age), complexity (comorbidity) and needs. These groups are known as Diagnosis Related Groups (DRGs), or Medicare Severity-Diagnosis Related Groups (MS-DRGs).

Each DRG/MS-DRG has a relative average value assigned to it that indicates the amount of resources required to treat patients in the group, as compared to all the other diagnosis-related groups within the system.

**Hospital Case Mix Index (CMI)**

The CMI of a hospital reflects the diversity, clinical complexity and the needs for resources in the population of all the patients in the hospital.

- The CMI value of a hospital can be used to adjust the average cost per patient (or per day) for a given hospital relative to the adjusted average cost for other hospitals by dividing the average cost per patient (or day) by the hospital’s calculated CMI.
- The adjusted average cost per patient would reflect the charges reported for the types of cases treated in that year.
- If a hospital has a CMI greater than 1.00, their adjusted cost per patient or per day will be lower and conversely if a hospital has a CMI less than 1.00, their adjusted cost will be higher.

For example, if Hospital A has an average cost per patient of $1,000 and a CMI of 0.80 for a given year, their adjusted cost per patient is $1,000 / 0.80 = $1,250. Likewise, if Hospital B has an average cost per patient of $1,500 and a CMI of 1.25, their adjusted cost per patient is $1,500 / 1.25 = $1,200.

Therefore, if a hospital has a CMI greater than 1.00, their adjusted cost per patient or per day will be lowered and conversely if a hospital has a CMI less than 1.00, their adjusted cost will be higher.

To calculate the CMI, use Medicare Severity-Diagnosis Related Groups (MS-DRGs) weights assigned by the Centers for Medicare & Medicaid Services (CMS).
Patients are assigned to one of over 700 MS-DRGs (based on the principal and secondary diagnoses, age, procedures performed, the presence of co-morbidity and/or complications, discharge status, and gender).

Each MS-DRG has a numeric weight* reflecting the national “average hospital resource consumption” by patients for that MS-DRG, relative to the national “average hospital resource consumption” of all patients.

Although the MS-DRG weights are based on resource consumption by Medicare patients, it is applied to all patient discharge data reported by hospitals in Florida during the course of a calendar year.

The case mix index is then calculated by averaging the MS-DRG weight of patients discharged within the calendar year, i.e., the sum of the MS-DRG weights divided by the number of patients.