**Which procedures have the greatest variability between hospitals?**

In this section, I will find the procedures that have the greatest variability between hospitals. Again, I interpret procedures as being the “conditions” in the “Timely and Effective Care” data set. There are 10 conditions - Emergency Department, Surgical Care Improvement Project, Children’s Asthma, Heart Failure, Stroke Care, Pneumonia, Preventive Care, Blood Clot Prevention and Treatment, Heart Attack or Chest Pain, and Pregnancy and Delivery Care.

In order to determine the variability of each of these conditions between hospitals, I thought it would be best to create at a table that contains the summary statistics of how the scores for the respective conditions vary across hospitals. So for each condition, I will use the average score for the respective condition at each hospital that I used in the “best\_hospital” exercise, as the measure of how each condition is treated at the respective hospital. Then I will find summary statistics such as the range, the maximum, minimum, average and probably most importantly, the standard deviation of these condition scores across the hospitals.

Below, please see the variability of the conditions across hospitals, ordered by the standard deviation of the condition scores. The Emergency Department measure appears to be the one which performance varies most significantly across hospitals, ranging from a score of 76 to a score of 259. The Surgical Care Improvement Project measure has quite stable scores across hospitals, ranging from only 90 to 100.

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| --- | --- | --- | --- | --- | --- | --- |
|  | **Conditions** | **Range** | **Maximum** | **Minimum** | **Average** | **Standard Deviation** |
|  |  |  |  |  |  |  |
| 1 | Emergency Department | 183 | 259 | 76 | 122 | 37 |
| 2 | Children's Asthma | 66 | 100 | 34 | 89 | 12 |
| 3 | Heart Attack or Chest Pain | 52 | 100 | 47 | 90 | 12 |
| 4 | Blood Clot Prevention and Treatment | 31 | 99 | 68 | 80 | 7 |
| 5 | Preventive Care | 33 | 99 | 65 | 88 | 7 |
| 6 | Pregnancy and Delivery Care | 54 | 54 | 0 | 4 | 6 |
| 7 | Stroke Care | 30 | 100 | 69 | 95 | 5 |
| 8 | Heart Failure | 16 | 100 | 84 | 97 | 3 |
| 9 | Pneumonia | 19 | 100 | 80 | 96 | 3 |
| 10 | Surgical Care Improvement Project | 9 | 100 | 90 | 98 | 1 |