

How to Track Performance Metrics: A Better Way



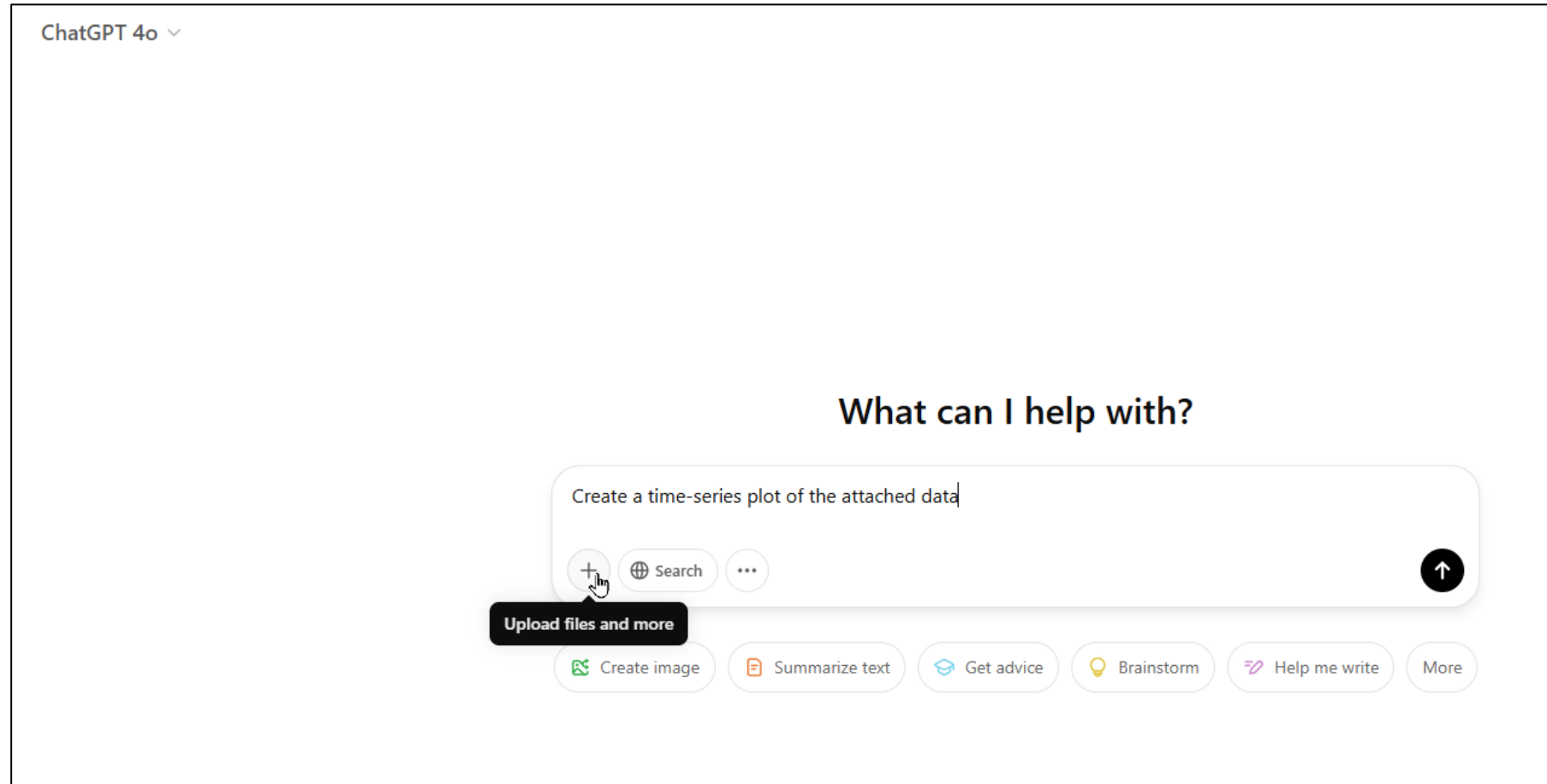
Hemoglobin A1C Data

Date	Hemoglobin A1C
7/26/2001	8.5
10/30/2001	7.7
1/25/2002	8.0
3/26/2002	7.0
6/19/2002	6.2
10/17/2002	6.7
1/15/2003	6.5
4/15/2003	7.0
7/17/2003	6.7
10/15/2003	7.2
1/9/2004	6.5
4/9/2004	6.8
7/23/2004	7.0
10/27/2004	6.7
1/25/2005	6.5
4/28/2005	6.6
7/24/2005	5.9

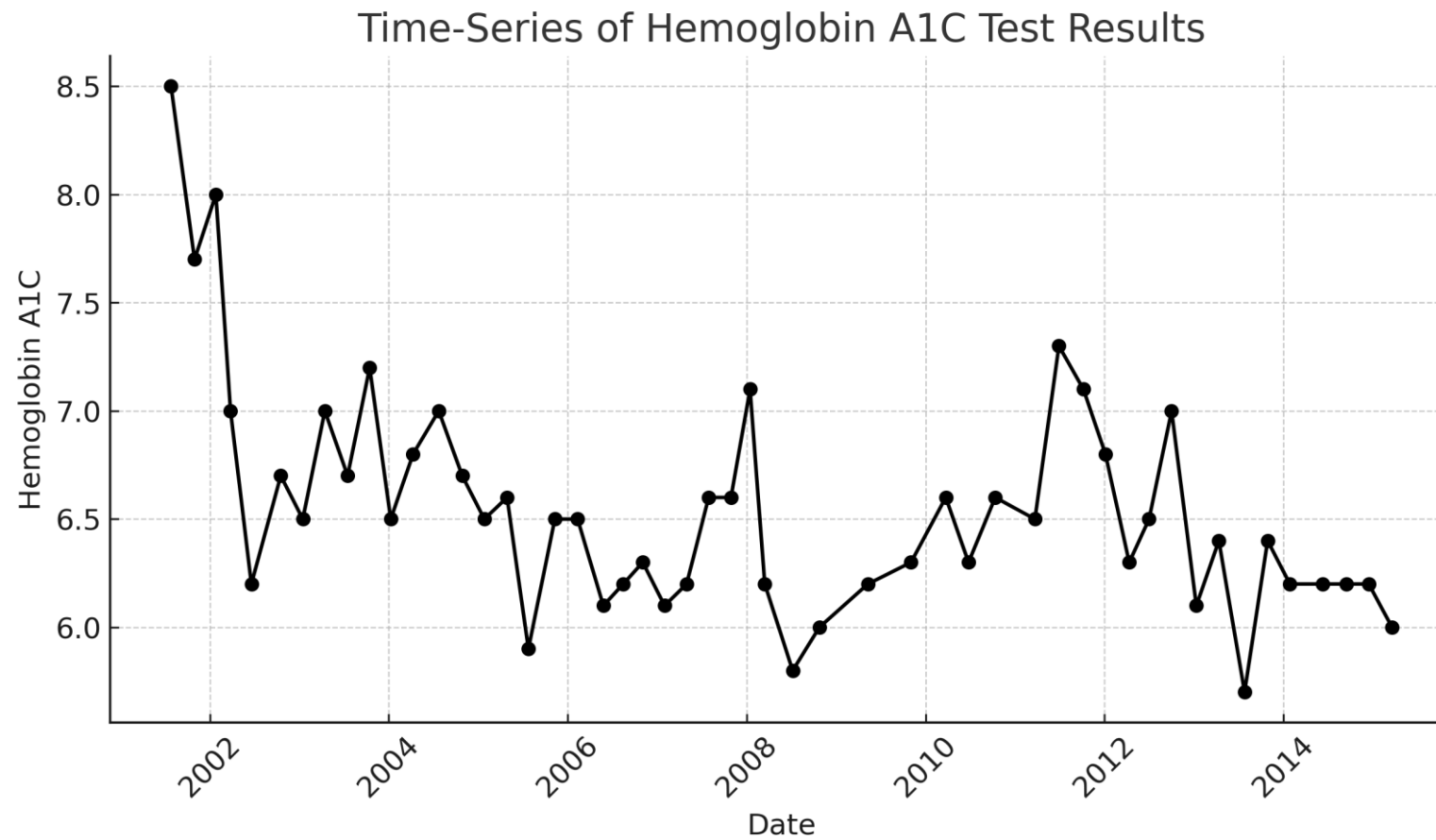
Date	Hemoglobin A1C
11/9/2005	6.5
2/10/2006	6.5
5/26/2006	6.1
8/15/2006	6.2
11/3/2006	6.3
1/31/2007	6.1
5/1/2007	6.2
7/30/2007	6.6
10/29/2007	6.6
1/15/2008	7.1
3/15/2008	6.2
7/7/2008	5.8
10/24/2008	6.0
5/10/2009	6.2
11/2/2009	6.3
3/24/2010	6.6
6/25/2010	6.3

Date	Hemoglobin A1C
10/12/2010	6.6
3/23/2011	6.5
6/29/2011	7.3
10/7/2011	7.1
1/5/2012	6.8
4/11/2012	6.3
7/1/2012	6.5
10/1/2012	7.0
1/10/2013	6.1
4/12/2013	6.4
7/26/2013	5.7
10/28/2013	6.4
1/27/2014	6.2
6/9/2014	6.2
9/15/2014	6.2
12/15/2014	6.2
3/20/2015	6.0

Creating a Time-series Plot of the A1C Data



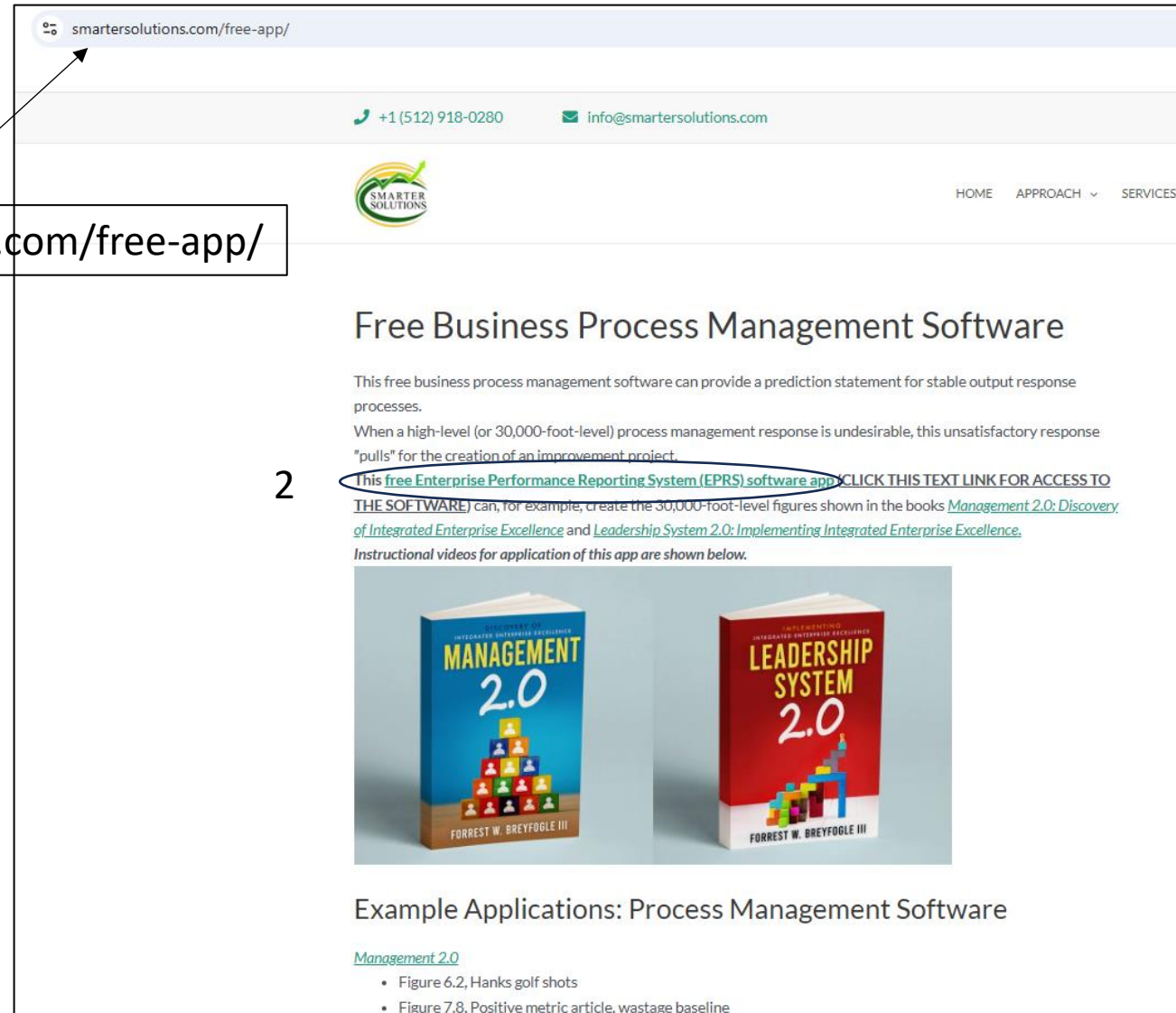
ChatGTP Time Series Plot of the Data



Free 30,000-foot-level Reporting App

1

<https://smartersolutions.com/free-app/>



smartersolutions.com/free-app/

+1 (512) 918-0280 info@smartersolutions.com

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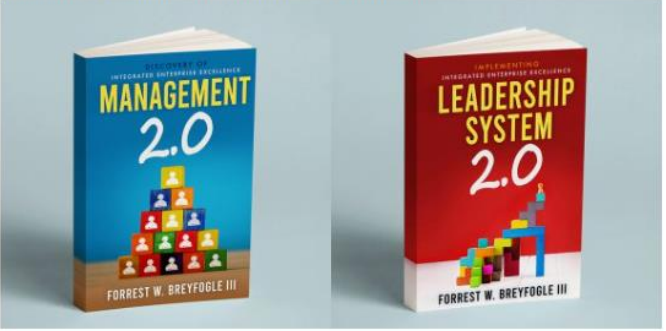
HOME APPROACH SERVICES

Free Business Process Management Software

This free business process management software can provide a prediction statement for stable output response processes.

When a high-level (or 30,000-foot-level) process management response is undesirable, this unsatisfactory response "pulls" for the creation of an improvement project.

2 [This free Enterprise Performance Reporting System \(EPRS\) software app](#) **CLICK THIS TEXT LINK FOR ACCESS TO THE SOFTWARE** can, for example, create the 30,000-foot-level figures shown in the books [Management 2.0: Discovery of Integrated Enterprise Excellence](#) and [Leadership System 2.0: Implementing Integrated Enterprise Excellence](#). *Instructional videos for application of this app are shown below.*



Example Applications: Process Management Software

[Management 2.0](#)

- Figure 6.2, Hanks golf shots
- Figure 7.8, Positive metric article, wastage baseline

EPRS Metrics Tool App

The screenshot shows the website for the EPRS Metrics Tool App. At the top left is the logo for Smarter Solutions. The navigation menu includes links for HOME, APPROACH, SERVICES, RESOURCES, ABOUT US, and CONTACT US, along with a search icon. The main heading is "EPRS Metrics Tool App". Below this is a paragraph of text: "Contact us to discuss application of EPRS-metrics tool to various process-output response metrics situations and/or apply this metric tool to provide automatic predictive metric responses throughout an organization." There are four green buttons: "CONTACT US", "VIEW INSTRUCTIONS", "INSTRUCTIONAL VIDEOS", and "EXAMPLE DATASETS". Below these buttons is the text "Open app in a separate window (best for mobile)" and a yellow button labeled "OPEN APP", which is circled in red. The lower section is titled "Smarter Solutions: IEE Chart Builder" and contains a form with fields for "File input", "Choose the IEE Chart Type", and "Select Plot Column". A note states: "You must select an excel file to begin chart building you must type in the plot column name to generate a chart". A text box on the right contains the text: "Enterprise Performance Reporting System (EPRS) Metric is 30,000-foot-level reporting".

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HOME APPROACH SERVICES RESOURCES ABOUT US CONTACT US

EPRS Metrics Tool App

Contact us to discuss application of EPRS-metrics tool to various process-output response metrics situations and/or apply this metric tool to provide automatic predictive metric responses throughout an organization.

CONTACT US VIEW INSTRUCTIONS INSTRUCTIONAL VIDEOS EXAMPLE DATASETS

Open app in a separate window (best for mobile)

OPEN APP

Smarter Solutions: IEE Chart Builder

Identify the Excel file with data

File input

Browse... No file selected

Select the chart type and options

Choose the IEE Chart Type

No Subgroup

Select Plot Column

Method to determine capability?

You must select an excel file to begin chart building
you must type in the plot column name to generate a chart

Enterprise Performance Reporting System (EPRS) Metric is 30,000-foot-level reporting

Creation of Hemoglobin A1C 30,000-foot-level Report

Smarter Solutions: IEE Chart Builder

Identify the Excel file with data

File input

Browse... A1C test results.xlsx

Upload complete

Select the chart type and options

Choose the IEE Chart Type

No Subgroup

Select Plot Column

Hemoglobin.A1C

Method to determine capability?

Without a Specification

Use Median or Mean in capability?

Mean

Stage Column Name

Date

Optional: Choose the format of Stage Value

Date

Enter Stage Values separated by commas. Entries must exist in Stage column.

2002-03-26, 2013-01-10

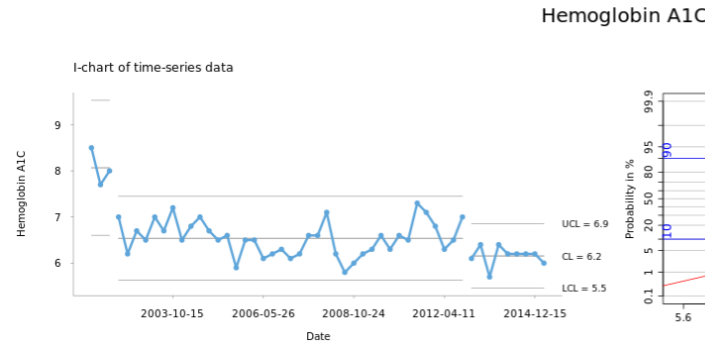
Date Stage Values must use Format 'yyyy-mm-dd'

Column to use for I-chart X-axis (may not have repeat values)

Date

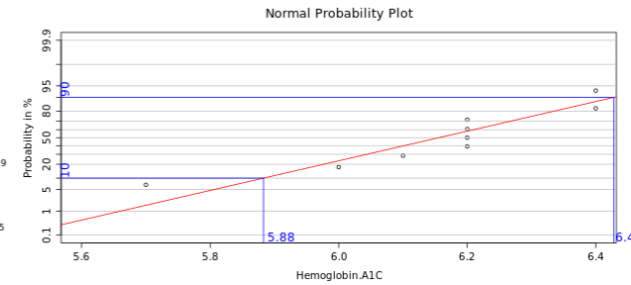
Data Distribution Choice

Normal



The current process response is predictable.
The estimated mean is 6.16 with an 80% frequency of occurrence between 5.88 and 6.43

Date	Hemoglobin.A1C
2001-07-26	8.50
2001-10-30	7.70
2002-01-25	8.00
2002-03-26	7.00
2002-06-19	6.20
2002-10-17	6.70



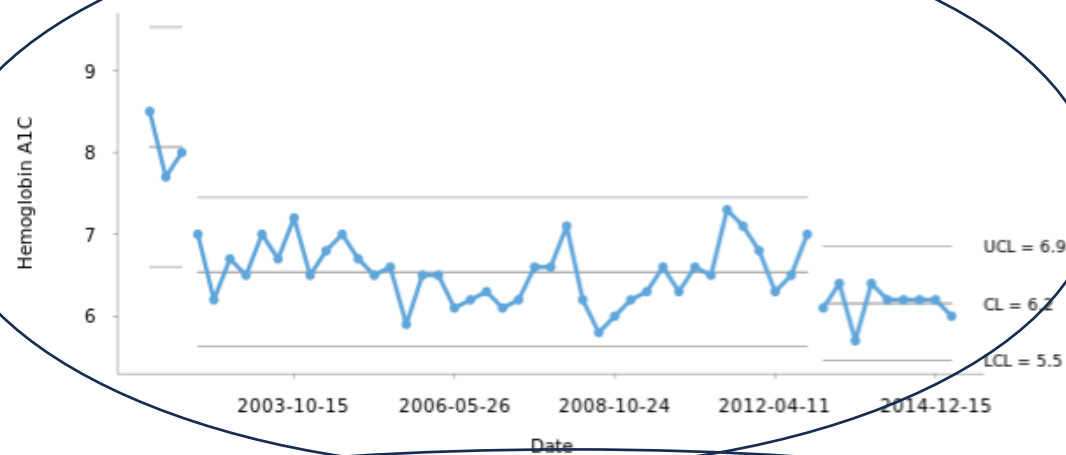
IEE = Integrated Enterprise Excellence

Instructions for using this app for various datasets is available on the webpage <https://smartersolutions.com/free-app/>

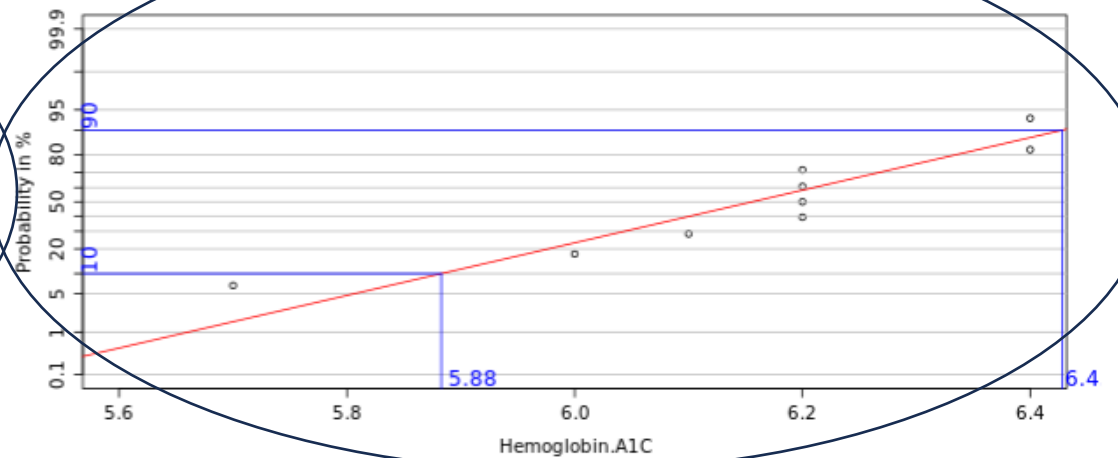
Hemoglobin A1C 30,000-foot-level Report

Hemoglobin A1C

I-chart of time-series data



Normal Probability Plot



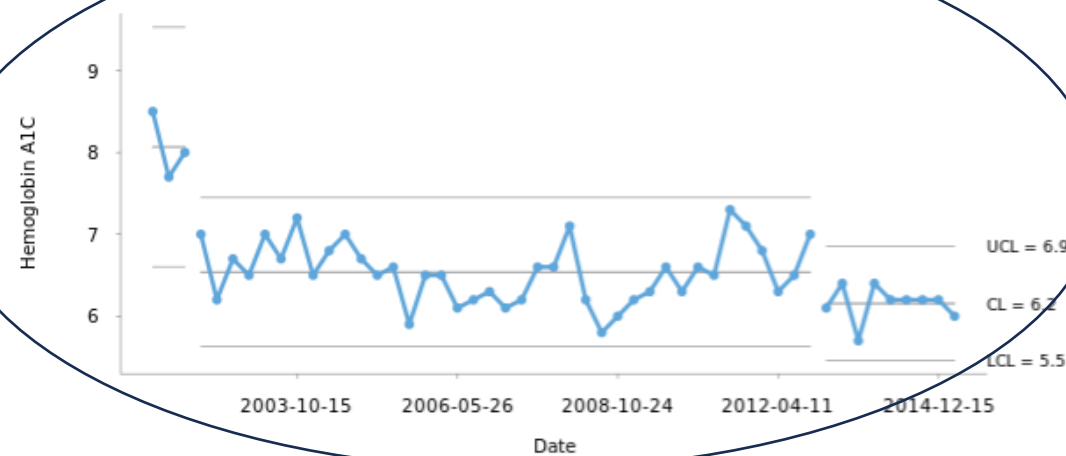
The current process response is predictable.

The estimated mean is 6.16 with an 80% frequency of occurrence between 5.88 and 6.43

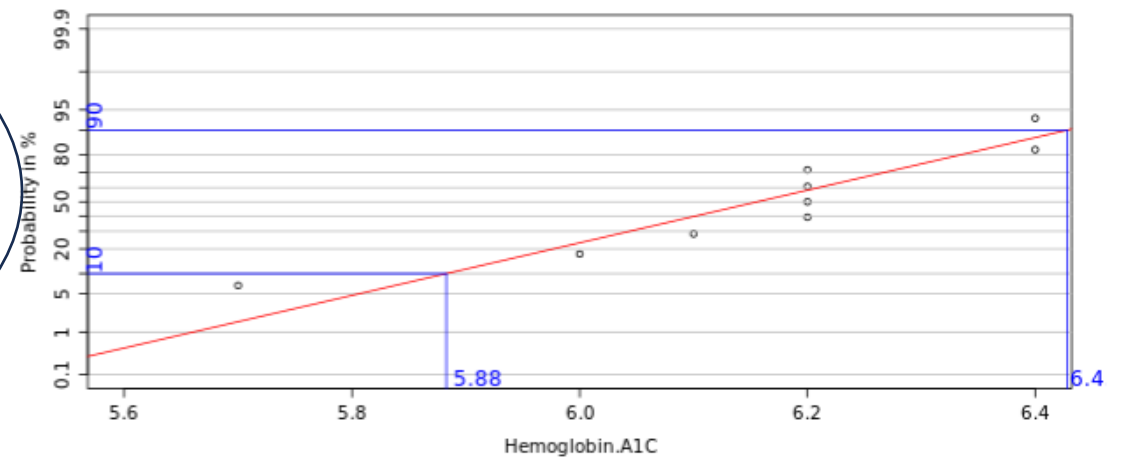
Hemoglobin A1C 30,000-foot-level Report

Hemoglobin A1C

I-chart of time-series data



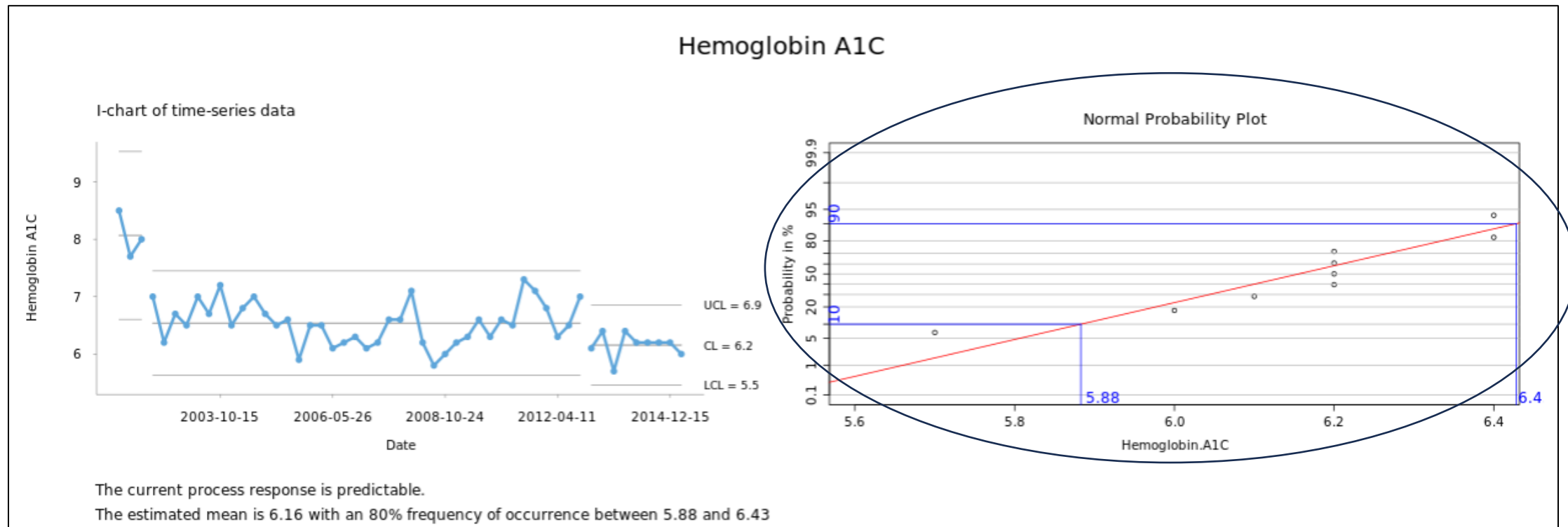
Normal Probability Plot



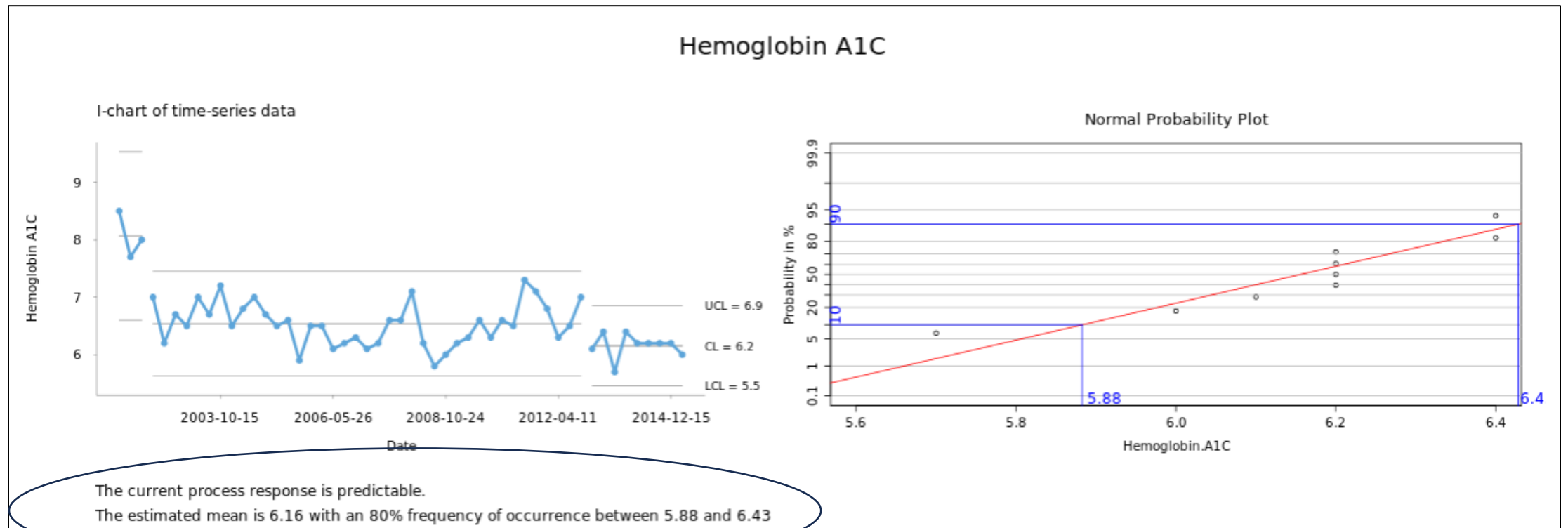
The current process response is predictable.

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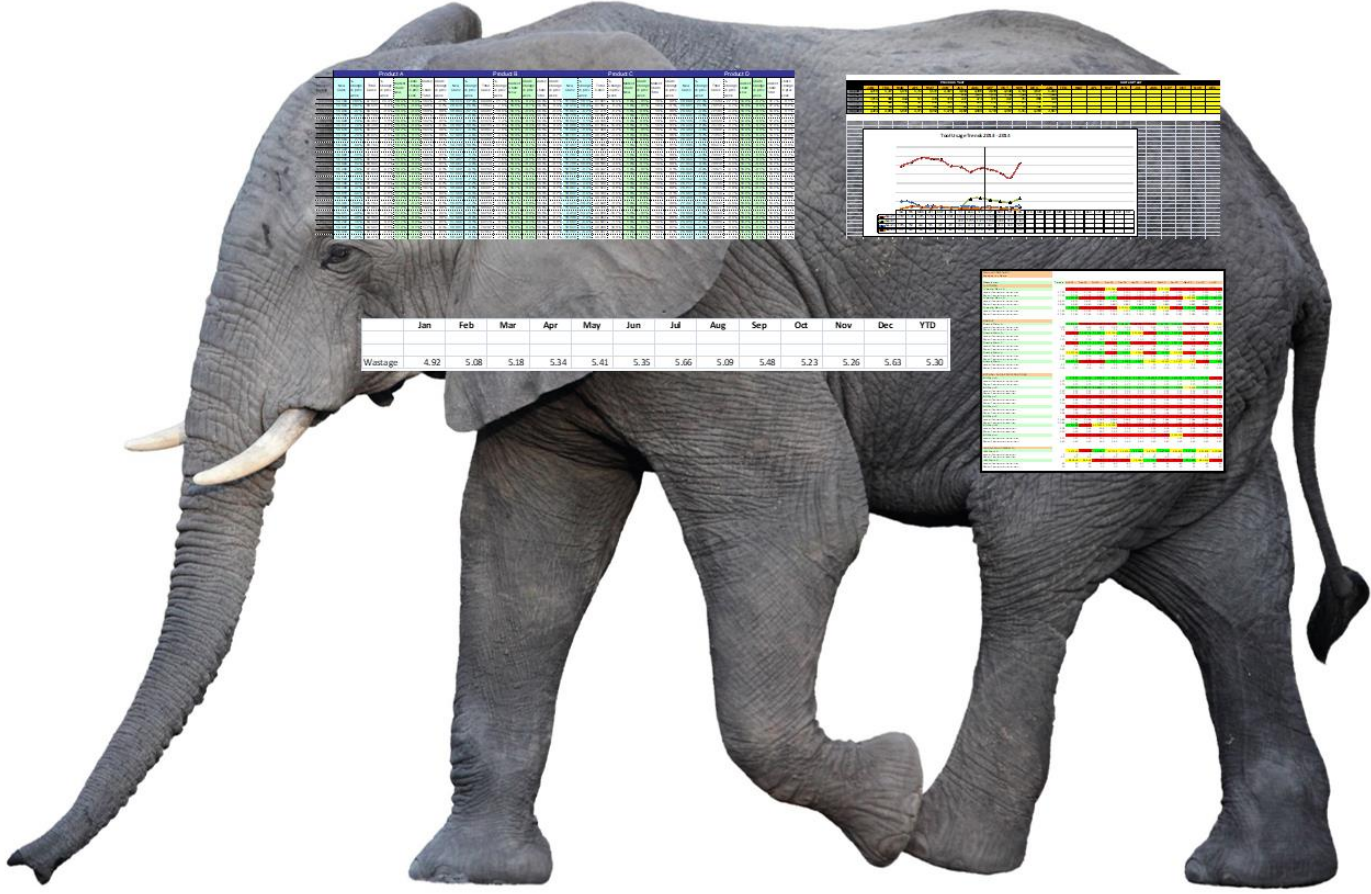
Hemoglobin A1C 30,000-foot-level Report



Hemoglobin A1C 30,000-foot-level Report



Application of 30,000-foot-level reporting



Benefits of 30,000-foot-level Reporting

Over Traditional KPI and Organizational Dashboard Metric Reporting include:

- Consideration that a metric response is the output of a process (Y) which is a function of its process inputs (Xs), i.e., $Y=f(X)$
- A prediction assessment for metrics, where if a futuristic statement (i.e., a capability statement) is undesirable there is a need for process improvement
- Integration (in one report-out) a Y response with the process (Xs) that created the Y. This Y with X integration can be accomplished within the Integrated Enterprise Excellence (IEE) system.
- Demonstration of process improvement when there is a statistical staging of a 30,000-foot-level that shows process improvement
- Future expectation for a process non-conformance rate or mean/median response (with 80% frequency of occurrence), where if a futuristic is undesirable there is a need for process improvement
- Metric goals that encourage process improvement, i.e., improve the Xs to enhance a Y response. This is very different than red-yellow-green scorecard reporting which can result in much wasted efforts attempting to resolve common-cause variability datum points as though they were the result of special-cause events
- Y metric goal setting that encourages process improvement, as opposed a “meet-the-Y-numbers” approach that can encourage unhealthy behaviors, e.g., pulling orders from future months to meet current monthly goals, at great expense to the company (we will worry about next month goals next month)

Benefits of 30,000-foot-level Reporting

Over Traditional Control Charting and Process Capability Indices Reporting include:

- Providing a high-level view of the output of a process, not unlike the view of the terrain below from the window of an airplane in flight at 30,000 feet
- Providing the output of a process from a customer perspective. A customer wants a product or service delivered timely with satisfactory quality. Customers do not care, for example, which cavity, machine, or production shift produced a product
- A prediction assessment for metrics, where if a futuristic statement (i.e., a capability statement) is undesirable there is a need for process improvement, e.g., reduce the differences between production shifts (a source of high-level, common-cause variability) which is causing an excessive product non-conformance rate
- Integration of a process output response stability assessment (via a control chart) with its process capability statement in one chart, where the process capability statement is easy to understand, even if there is no specification, i.e., estimated percent non-conformance if a specification exists or mean/median response with 80% frequency of occurrence when there is no specification
- A process capability/performance report that is much easier to understand than process capability/performance indices C_p , C_{pk} , P_p , and P_{pk}
- Integration (in one report-out) a Y response with the process (Xs) that created the Y. This Y with X integration can be accomplished within the Integrated Enterprise Excellence (IEE) system

Next Steps

Schedule a video meeting with me to see how your organization could benefit from 30,000-foot-level reporting using one of your datasets.

You can schedule a video meeting session with me

- Through the link <https://smartersolutions.com/schedule-zoom-session/>
- By emailing me at forrest.breyfogle@smartersolutions.com

A PDF copy of this video presentation (and more) is available through the link:
<https://smartersolutions.com/how-to-track-performance-metrics-a-better-way.html/>

Subscribe to <https://www.youtube.com/SmarterSolutions> to see more do-it-smarter techniques for metric reporting and enhanced process improvement methodologies, so the big-picture benefits.