

### **Evaluation Criteria of Proficiency Testing Program**

To assess the competence of the laboratory. Statistics used Robust Z-Score Calculated from the Robust average and Robust standard deviation. Of the participating laboratories Expertise to assess how much laboratory results deviate from the group.

Z-Score used to evaluate the participation of testing laboratories.

$$Z = \frac{x - X}{s}$$

By

x = Results of participating labs.

X = Set value or reference value.

s = Deviation from the test. (Standard deviation of program participants etc.)

The statistical technique is to calculate the ratio of deviation between reference values. And laboratory values for standard deviation.

### **Robust Z-score evaluation uses the following criteria**

If  $|Z| \leq 2$  Show that the test results are acceptable . (Satisfactory)

If  $2 < |Z| < 3$  Show that the results are questionable. (Questionable)

If  $|Z| \geq 3$  The results are not valid. (Unsatisfactory)