

External Quality Assurance (EQA) of G6PD Quantitative Test

Survey No. : RH2025-02

Sample sent on : 2025/06/02

Reporting deadline : 2025/06/09

Sample sent : [30 set](#)

Results reported (%) : 28 (93%)

1. [Long term observation of inter laboratory CV vs. surveys](#)4. [The distribution of G6PD reported in this survey](#)2. [Long term observation of inter laboratory CV vs. G6PD activities](#)5. [The distribution of Hb reported in this survey](#)3. [Deviation graph for individual laboratory](#)6. [Others](#)

Summary Report of G6PD and Hemoglobin (Hb) Quantitative Test Results

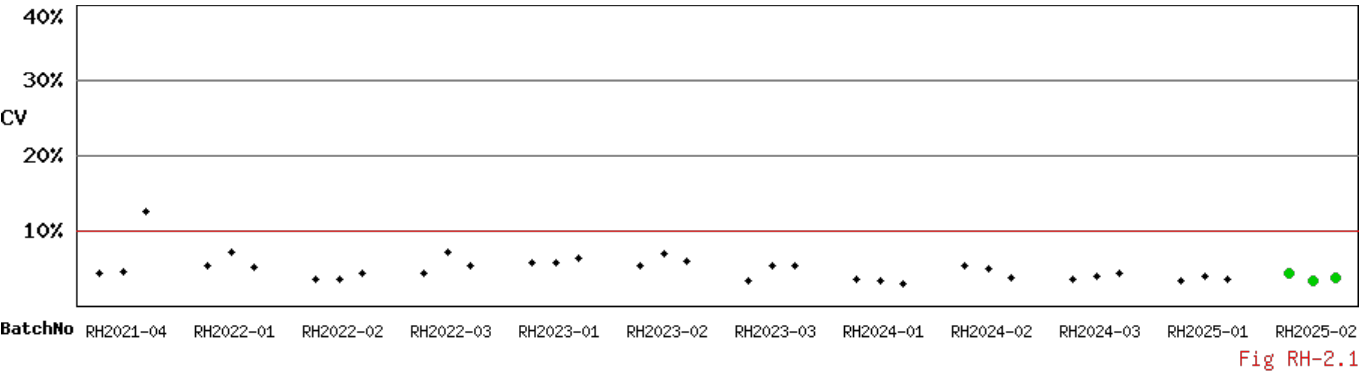
Lab	Referral Hosp.	Report (day)	G6PD Reagent Code	Sample 1				Sample 2				Sample 3				Hb 1	Hb 2	Hb 3
				(U/g Hb)	D%	z' score	SDI	(U/g Hb)	D%	z' score	SDI	(U/g Hb)	D%	z' score	SDI			
F02	F02	7	5	8.8	4.8%	0.7	1.1	4.8	0.0%	0.0	0.0	16.9	7.6%	1.1	2.2	2.8	3.2	1.8
F04	F04	7	5	8.0	-4.8%	-0.7	-1.1	4.7	-2.1%	-0.3	-0.6	15.4	-1.9%	-0.3	-0.3	2.8	3.0	1.9
F05	F05	6	5	8.2	-2.4%	-0.3	-0.6	4.7	-2.1%	-0.3	-0.6	15.6	-0.6%	-0.1	0.0	2.9	3.1	2.1
F07	F07	7	5	8.4	0.0%	0.0	0.0	5.0	4.2%	0.6	1.3	16.0	1.9%	0.3	0.7	3.1	3.4	2.2
F09	F09	7	5	8.4	0.0%	0.0	0.0	4.9	2.1%	0.3	0.6	15.7	0.0%	0.0	0.2	3.1	3.1	2.2
F10	F10	7	5	5.6	-33.3%	-4.7	-7.8	4.7	-2.1%	-0.3	-0.6	15.2	-3.2%	-0.5	-0.7	2.5	3.2	2.2
F11	F11	5	5	8.9	6.0%	0.8	1.4	5.0	4.2%	0.6	1.3	14.6	-7.0%	-1.0	-1.7	2.7	2.7	2.9
F12	F12	3	5	8.7	3.6%	0.5	0.8	5.0	4.2%	0.6	1.3	16.7	6.4%	0.9	1.9	2.8	3.1	2.0
F13	F13	3	5	8.0	-4.8%	-0.7	-1.1	5.0	4.2%	0.6	1.3	15.0	-4.5%	-0.6	-1.0	2.8	3.0	2.0
F15	F15	6	5	8.0	-4.8%	-0.7	-1.1	4.6	-4.2%	-0.6	-1.3	15.4	-1.9%	-0.3	-0.3	2.8	3.2	2.0
F17	None	N.R.	5	N.R.	N.R.%	N.R.	N.R.	N.R.	N.R.%	N.R.	N.R.	N.R.	N.R.%	N.R.	N.R.	N.R.	N.R.	N.R.
F18	F18	2	5	8.5	1.2%	0.2	0.3	5.1	6.3%	0.9	1.9	15.7	0.0%	0.0	0.2	3.0	3.1	2.1
F19	F19	6	5	8.4	0.0%	0.0	0.0	4.8	0.0%	0.0	0.0	16.1	2.5%	0.4	0.9	2.8	3.1	2.0
F20	F20	4	5	8.2	-2.4%	-0.3	-0.6	4.8	0.0%	0.0	0.0	16.0	1.9%	0.3	0.7	2.9	3.1	2.0
F21	F21	7	5	8.4	0.0%	0.0	0.0	4.9	2.1%	0.3	0.6	15.9	1.3%	0.2	0.5	2.9	3.2	2.1
F22	F22	7	5	8.6	2.4%	0.3	0.6	4.9	2.1%	0.3	0.6	15.4	-1.9%	-0.3	-0.3	2.8	3.1	2.0
F24	None	N.R.	5	N.R.	N.R.%	N.R.	N.R.	N.R.	N.R.%	N.R.	N.R.	N.R.	N.R.%	N.R.	N.R.	N.R.	N.R.	N.R.
F25	F25	3	5	8.5	1.2%	0.2	0.3	4.7	-2.1%	-0.3	-0.6	15.7	0.0%	0.0	0.2	2.8	3.1	2.0
F26	F26	7	5	7.9	-6.0%	-0.8	-1.4	4.6	-4.2%	-0.6	-1.3	15.2	-3.2%	-0.5	-0.7	2.8	3.2	2.1
F27	F27	7	5	8.5	1.2%	0.2	0.3	4.7	-2.1%	-0.3	-0.6	15.8	0.6%	0.1	0.3	2.9	3.1	2.1
F28	F28	5	5	8.8	4.8%	0.7	1.1	4.9	2.1%	0.3	0.6	16.9	7.6%	1.1	2.2	2.7	3.0	1.9
F29	F29	7	5	8.1	-3.6%	-0.5	-0.8	4.6	-4.2%	-0.6	-1.3	15.0	-4.5%	-0.6	-1.0	2.7	3.0	2.0
F30	F30	7	5	9.0	7.1%	1.0	1.7	4.6	-4.2%	-0.6	-1.3	15.3	-2.5%	-0.4	-0.5	2.9	3.1	2.1
F31	F31	3	5	8.7	3.6%	0.5	0.8	4.8	0.0%	0.0	0.0	15.0	-4.5%	-0.6	-1.0	2.9	3.2	2.2
F32	F32	7	5	8.4	0.0%	0.0	0.0	4.7	-2.1%	-0.3	-0.6	16.3	3.8%	0.5	1.2	2.9	3.1	2.0
F33	F33	5	5	8.3	-1.2%	-0.2	-0.3	4.7	-2.1%	-0.3	-0.6	14.8	-5.7%	-0.8	-1.4	2.8	3.1	2.0
F34	F34	6	5	8.3	-1.2%	-0.2	-0.3	4.8	0.0%	0.0	0.0	16.0	1.9%	0.3	0.7	2.9	3.1	2.0
F35	F35	4	5	9.0	7.1%	1.0	1.7	5.0	4.2%	0.6	1.3	15.0	-4.5%	-0.6	-1.0	3.0	3.0	2.0
F36	F36	2	5	8.2	-2.4%	-0.3	-0.6	4.7	-2.1%	-0.3	-0.6	15.8	0.6%	0.1	0.3	2.9	3.0	1.9
F37	F37	7	5	8.2	-2.4%	-0.3	-0.6	4.7	-2.1%	-0.3	-0.6	15.7	0.0%	0.0	0.2	2.9	3.1	2.0
Total participating laboratories = 30																		
Xa (Median)	-	6	-	8.4				4.8				15.7				2.9	3.1	2.0
uXa	-	-	-	0.075				0.033				0.121				-	-	-
σp	-	-	-	0.588				0.336				1.099				-	-	-
Range	-	2-7	-	5.6-9.0				4.6-5.1				14.6-16.9				2.5-3.1	2.7-3.4	1.8-2.9
n	-	-	-	28				28				28				28	28	28
Mean	-	-	-	8.4				4.8				15.6				2.9	3.1	2.0
SD	-	-	-	0.36				0.16				0.58				0.08	0.08	0.11
CV	-	-	-	4.3%				3.3%				3.7%				2.8%	2.6%	5.5%
Note:																		
1. $D\% = [(X - X_a) / X_a] \times 100\%$; X = Your Results , Xa = Assigned value																		
2. $z' \text{ score} = (X - X_a) / (\sigma_p^2 + u_{Xa}^2)^{1/2}$																		
3. SDI = (X - Mean) / SD ; SD = standard deviation of peer group ; SDI is not calculated when SD equals 0																		
4. The assigned value (Xa) is the median of all the results reported of this QC sample																		
5. SD for proficiency assessment (σp) = 7% x Xa ; but while Xa < 2.9 U/g Hb, σp = 0.2 U/g Hb																		
6. uXa = uncertainty of the assigned value. $u_{Xa} = 1.1 \times SD / n^{1/2}$																		
7. Robust results (Mean and SD) were calculated by Algorithm A according to ISO 13528																		
8. The evaluation criteria for measurement result of each specimen : Acceptable : $ z' \leq 2$; Caution : $2 < z' < 3$; Unsatisfactory : $ z' \geq 3$																		

Reagent Kit	G6PD Reagent Code	Lab
Medicon	5	F02, F04, F05, F07, F09, F10, F11, F12, F13, F15, F18, F19, F20, F21, F22, F25, F26, F27, F28, F29, F30, F31, F32, F33, F34, F35, F36, F37

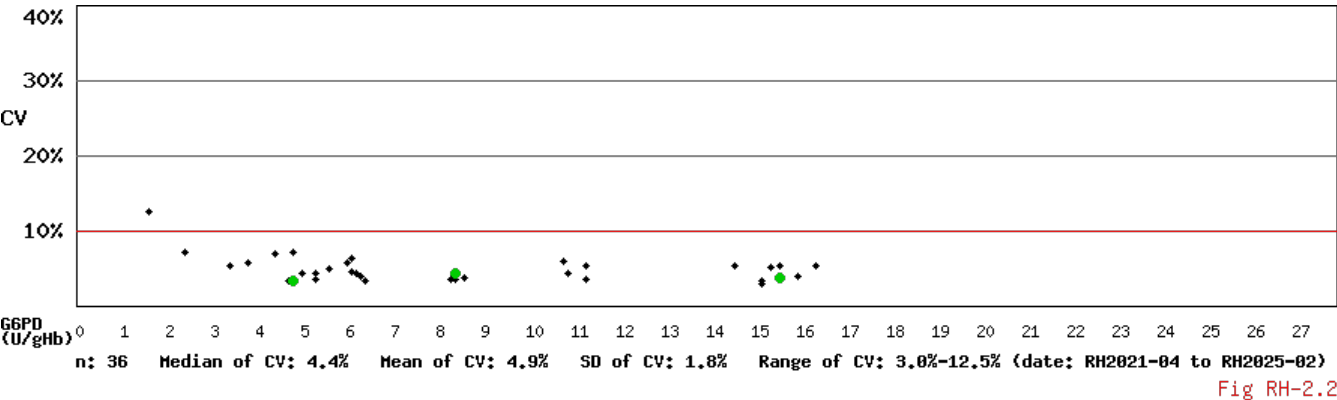
Long Term Observation of Blood G6PD Quantitative Test EQA Survey Results

Survey No : RH2025-02 (in green ●)

- Total participants' CV result plotted against surveys



- Total participants' CV result plotted against G6PD activities



* Mean and SD are calculated by Robust method according to ISO 13528 since 2014

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(Report generated at 2025-06-09 18:10:15)

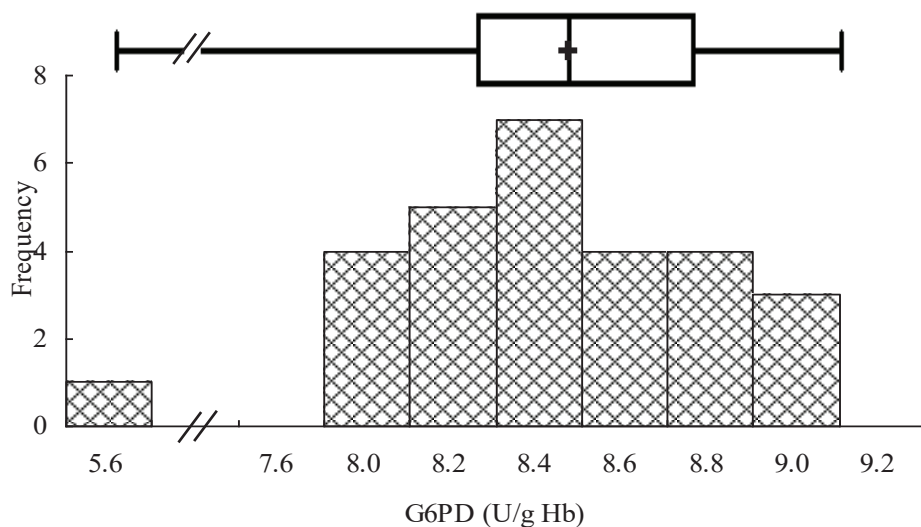
RH2025-02 Distribution of G6PD Test Results

Survey No. : RH2025-02

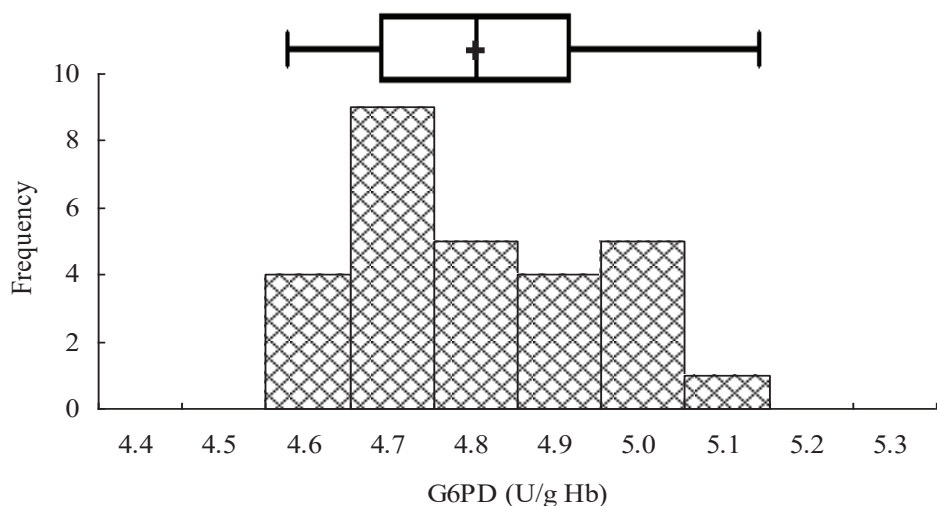
Sample sent on : 2025/06/02

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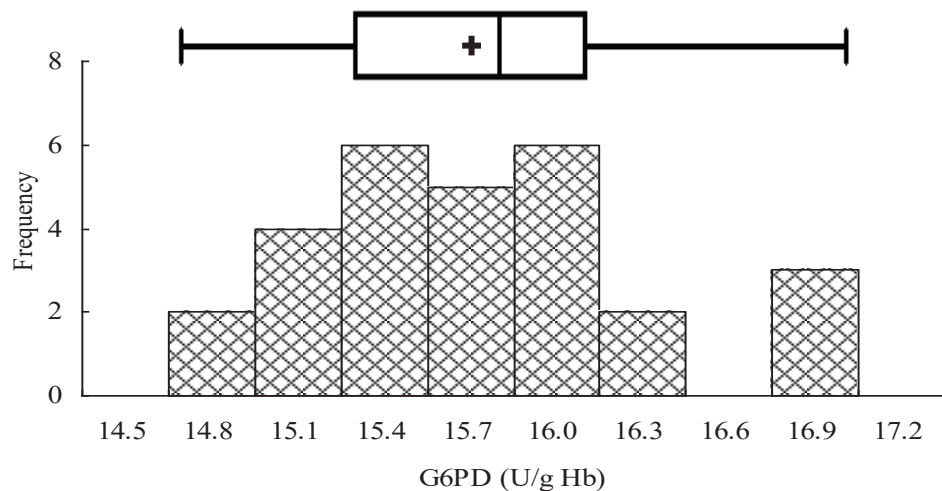
Results reported (%) : 93.3%



Sample 1

Median = 8.4 (n = 28)**Mean* = 8.4 (n = 28)****SD* = 0.36****CV = 4.3%**

Sample 2

Median = 4.8 (n = 28)**Mean* = 4.8 (n = 28)****SD* = 0.16****CV = 3.3%**

Sample 3

Median = 15.7 (n = 28)**Mean* = 15.6 (n = 28)****SD* = 0.58****CV = 3.7%**

*Robust results (Mean and SD) were calculated by Algorithm A according to ISO 13528

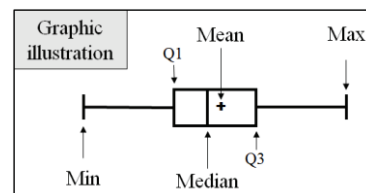
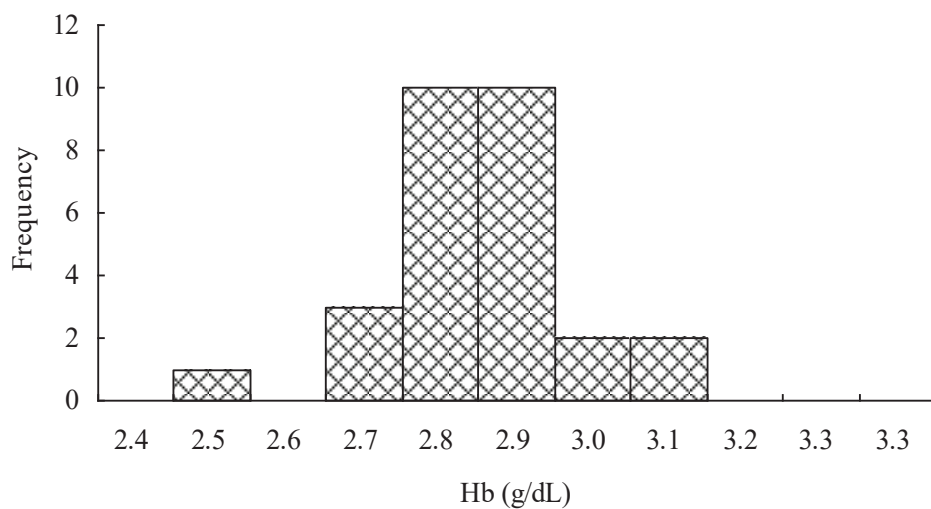
RH2025-02 Distribution of Hb Test Results

Survey No. : RH2025-02

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Reporting deadline : 2025/06/09

Results reported (%) : 93.3%



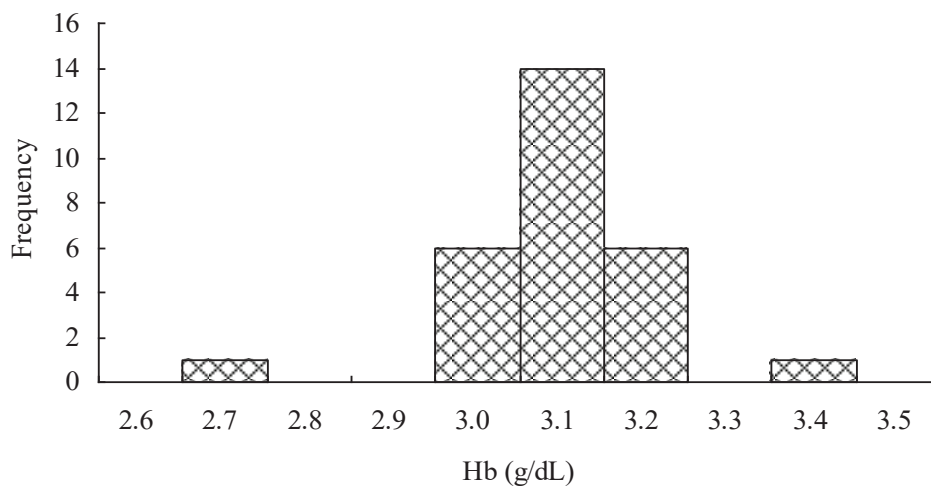
Sample 1

Median = 2.9 (n = 28)

Mean* = 2.9 (n = 28)

SD* = 0.08

CV = 2.8%



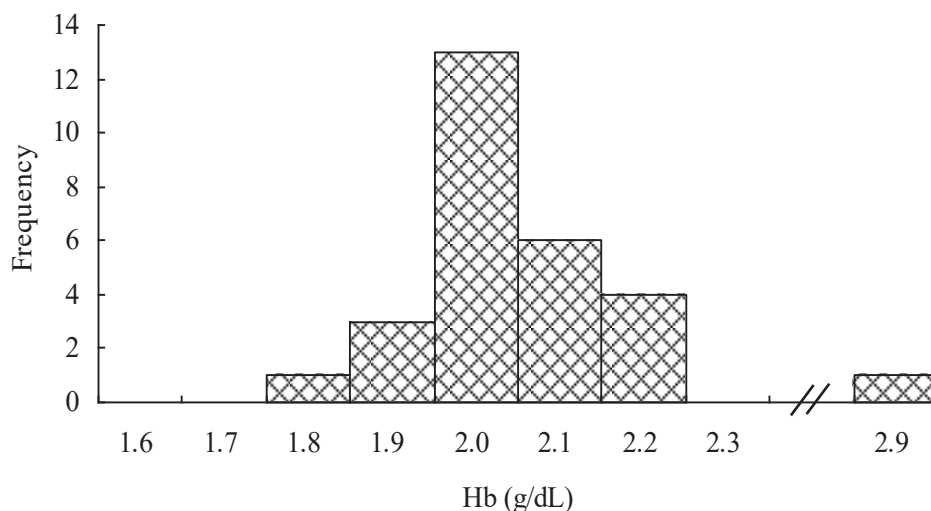
Sample 2

Median = 3.1 (n = 28)

Mean* = 3.1 (n = 28)

SD* = 0.08

CV = 2.6%



Sample 3

Median = 2.0 (n = 28)

Mean* = 2.0 (n = 28)

SD* = 0.11

CV = 5.5%

*Robust results (Mean and SD) were calculated by Algorithm A according to ISO 13528