

External Quality Assurance (EQA) of G6PD Quantitative Test

Survey No. : RH2015-04
Sample sent : [21 set](#)

Sample sent on : 2015/04/20
Results reported (%) : 20 (95%)

Reporting deadline : 2015/04/27

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

Referral Hosp. G6PD and Hemoglobin(Hb) Quantitative Test Results

Lab	Referral Hosp.	Report (day)	Sample 1				Sample 2				Sample 3				Hb 1 (g/dL)	Hb 2 (g/dL)	Hb 3 (g/dL)
			(U/gHb)	D%	z score	SDI	(U/gHb)	D%	z score	SDI	(U/gHb)	D%	z score	SDI			
F01	None	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.	N.R.
F02	F02	3	14.5	21.8%	3.1	1.4	6.4	20.8%	3.0	1.4	4.8	33.3%	4.8	1.6	1.8	1.7	1.9
F03	F03	5	12.6	5.9%	0.8	0.2	5.6	5.7%	0.8	0.4	3.8	5.6%	0.8	0.4	2.0	1.9	2.0
F04	F04	7	10.5	-11.8%	-1.7	-1.0	4.3	-18.9%	-2.7	-1.3	2.6	-27.8%	-4.0	-1.1	2.2	2.1	2.2
F05	F05	4	12.2	2.5%	0.4	0.0	5.5	3.8%	0.5	0.3	3.9	8.3%	1.2	0.5	2.0	1.9	2.0
F06	F06	4	11.5	-3.4%	-0.5	-0.4	5.3	0.0%	0.0	0.0	3.2	-11.1%	-1.6	-0.4	2.0	1.9	2.1
F07	F07	4	11.8	-0.8%	-0.1	-0.2	5.5	3.8%	0.5	0.3	3.6	0.0%	0.0	0.1	2.0	2.0	2.2
F08	F08	3	13.1	10.1%	1.4	0.5	5.5	3.8%	0.5	0.3	3.7	2.8%	0.4	0.3	2.3	2.1	2.3
F09	F09	7	10.7	-10.1%	-1.4	-0.9	4.5	-15.1%	-2.2	-1.0	2.8	-22.2%	-3.2	-0.9	2.2	2.1	2.2
F10	F10	7	0.5	-95.8%	-13.7	-6.9	0.3	-94.3%	-13.5	-6.3	0.4	-88.9%	-12.7	-3.9	2.2	2.1	2.3
F11	F11	3	12.1	1.7%	0.2	-0.1	5.3	0.0%	0.0	0.0	3.5	-2.8%	-0.4	0.0	2.1	2.0	2.1
F12	F12	7	13.9	16.8%	2.4	1.0	6.5	22.6%	3.2	1.5	4.5	25.0%	3.6	1.3	2.3	2.2	2.3
F13	F13	4	14.6	22.7%	3.2	1.4	6.0	13.2%	1.9	0.9	4.1	13.9%	2.0	0.8	1.7	1.8	1.8
F14	F14	5	10.3	-13.4%	-1.9	-1.1	4.4	-17.0%	-2.4	-1.1	2.1	-41.7%	-6.0	-1.8	2.1	2.1	2.2
F15	F15	7	11.7	-1.7%	-0.2	-0.3	5.1	-3.8%	-0.5	-0.3	3.4	-5.6%	-0.8	-0.1	2.1	2.0	2.2
F16	F16	7	11.0	-7.6%	-1.1	-0.7	4.6	-13.2%	-1.9	-0.9	3.1	-13.9%	-2.0	-0.5	2.1	2.1	2.2
F17	F17	7	11.7	-1.7%	-0.2	-0.3	5.1	-3.8%	-0.5	-0.3	3.6	0.0%	0.0	0.1	2.2	2.0	2.2
F18	F18	5	10.8	-9.2%	-1.3	-0.8	4.9	-7.5%	-1.1	-0.5	3.3	-8.3%	-1.2	-0.3	2.2	2.0	2.2
F19	F19	2	13.9	16.8%	2.4	1.0	6.0	13.2%	1.9	0.9	3.9	8.3%	1.2	0.5	2.2	2.1	2.2
F20	F20	2	11.9	0.0%	0.0	-0.2	5.0	-5.7%	-0.8	-0.4	3.1	-13.9%	-2.0	-0.5	2.1	2.0	2.1
F21	F21	2	18.8	58.0%	8.3	3.9	8.7	64.2%	9.2	4.3	5.4	50.0%	7.1	2.4	1.5	1.4	1.6
Total participating laboratories = 21																	
Xa (Median)	-	4.5	11.9				5.3				3.6				2.1	2.0	2.2
σ _p	-	-	0.833				0.371				0.252				-	-	-
Range	-	2-7	0.5-18.8				0.3-8.7				0.4-5.4				1.5-2.3	1.4-2.2	1.6-2.3
n	-	-	20				20				20				20	20	20
Mean	-	-	12.2				5.3				3.5				2.1	2.0	2.1
S.D.	-	-	1.7				0.8				0.8				0.2	0.1	0.1
C.V.	-	-	13.9%				15.1%				22.9%				9.5%	5.0%	4.8%
Note:																	
1. $D\% = [(X - X_a) / X_a] \times 100\%$; X = Your Results, X _a = Assigned value																	
2. $z \text{ score} = D / \sigma_p$; D = X - X _a , σ _p = SD for proficiency assessment																	
3. $SDI = (X - \text{Mean}) / SD$; SD = standard deviation of peer group																	
4. The assigned value (X _a) is the median of all the results reported of this EQA sample																	
5. SD for proficiency assessment (σ _p) = 7% x X _a ; but while X _a < 2.9 U/gHb, σ _p = 0.2																	
6. Robust results (Mean and SD) were calculated by Algorithm A according to ISO 13528:2005																	
7. Acceptable : z ≤ 2; Caution : 2 < z ≤ 3; Unsatisfactory : z > 3																	
8. Maximum Allowable Deviation (MAD) = 3 x (σ _p / X _a) x 100%																	

Ordered by Referral Hosp.



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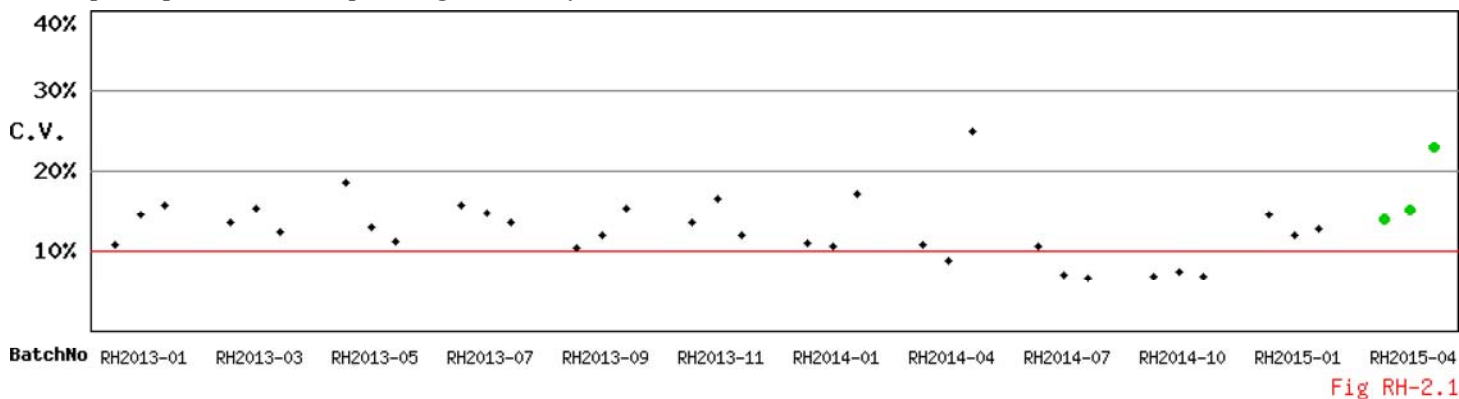
Fax : + 632-522-4396; info@nsrc-nih.org.ph



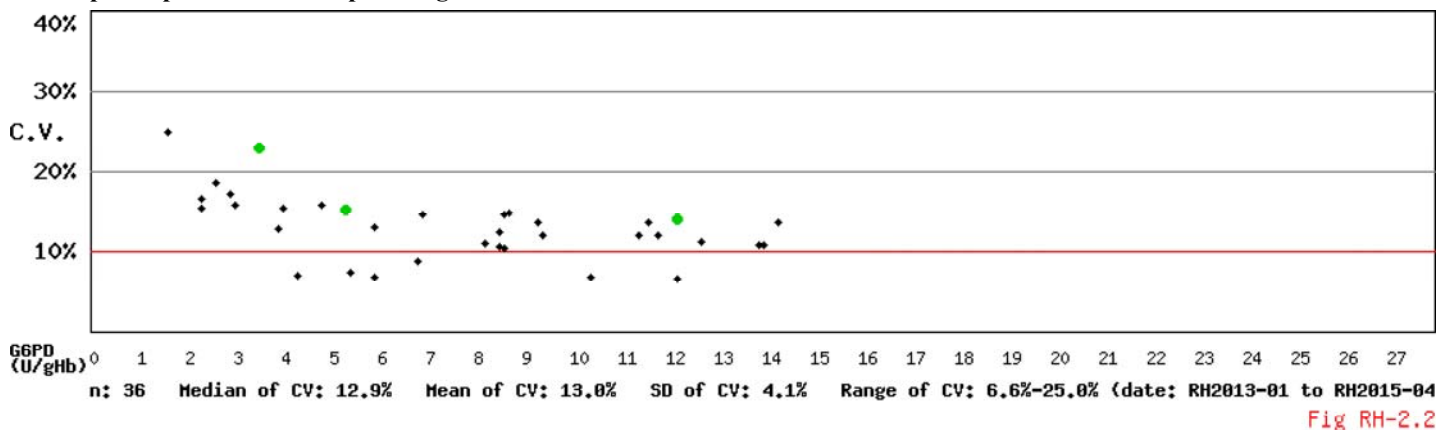
Long Term Observation of Blood G6PD Quantitative Test QA Survey Results

Survey No : RH2015-04 (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 13528:2005 since 2014

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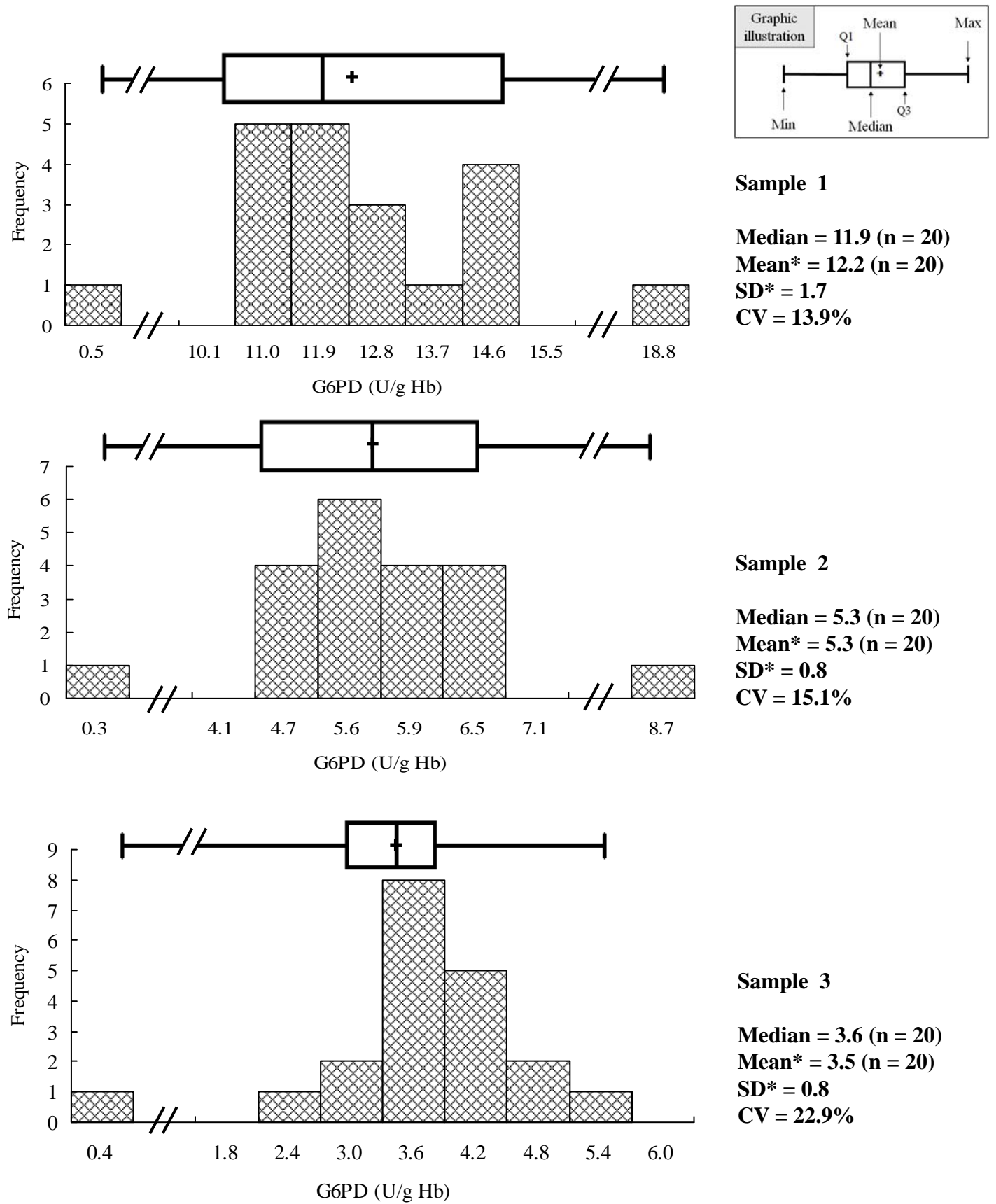
RH2015-04 External Quality Assurance -G6PD

Survey No. : RH2015-04

Sample sent on : 2015/04/20

Reporting deadline : 2015/04/27

Results reported (%) : 95.2%



*Robust results (Mean and SD) were calculated by Algorithm A according to ISO 13528:2005

Fig PHIQ-3

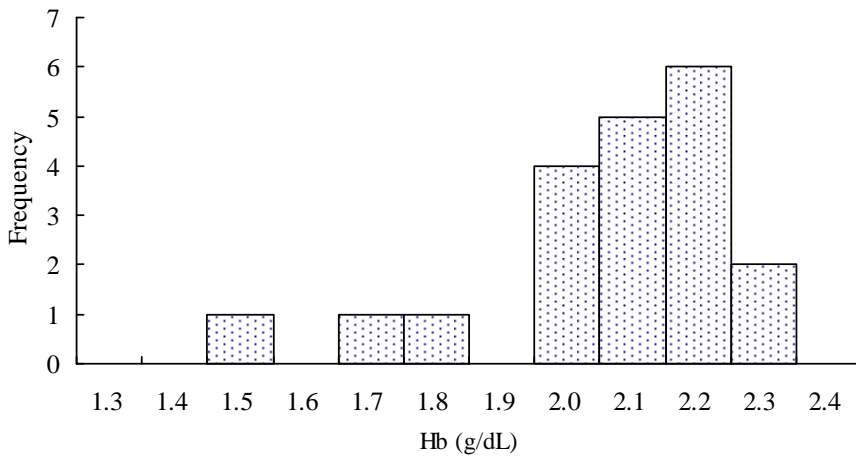
RH2015-04 External Quality Assurance -Hb

Survey No. : RH2015-04

Sample sent on : 2015/04/20

Reporting deadline : 2015/04/27

Results reported (%) : 95.2%



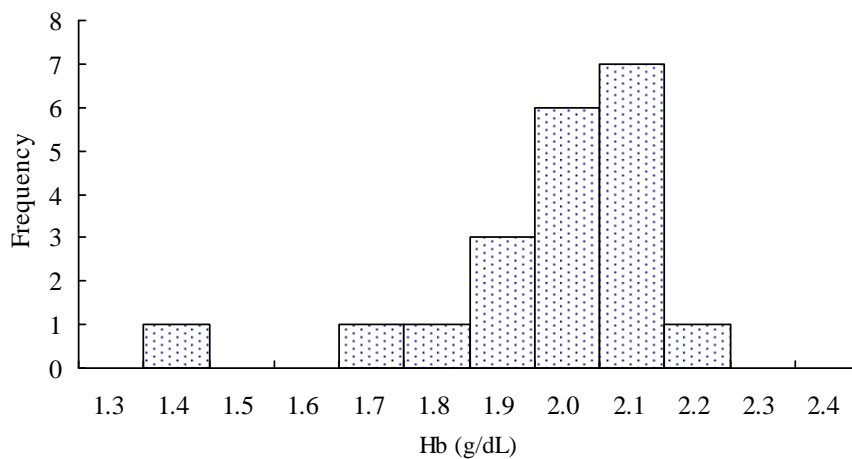
Sample 1

Median = 2.1 (n = 20)

Mean* = 2.1 (n = 20)

SD* = 0.2

CV = 9.5%



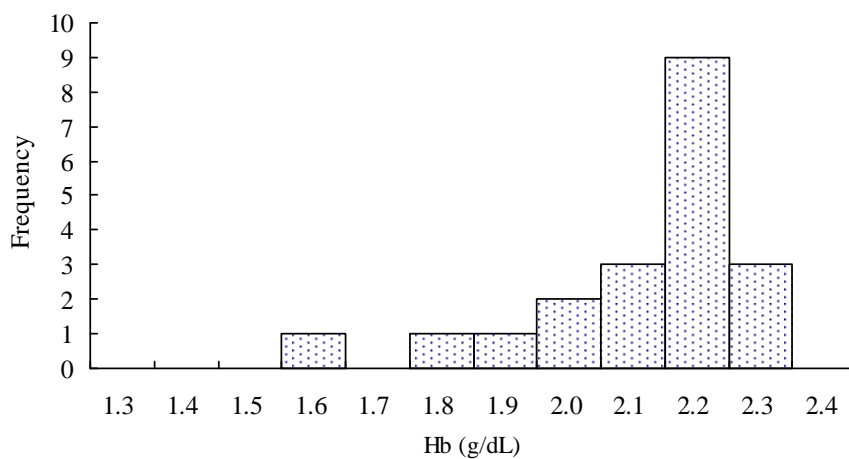
Sample 2

Median = 2.0 (n = 20)

Mean* = 2.0 (n = 20)

SD* = 0.1

CV = 5.0%



Sample 3

Median = 2.2 (n = 20)

Mean* = 2.1 (n = 20)

SD* = 0.1

CV = 4.8%

*Robust results (Mean and SD) were calculated by Algorithm A according to ISO 13528:2005

Fig PHIQ-4