

External Quality Assurance (EQA) of G6PD Quantitative Test

Survey No. : RH2016-01
Sample sent : [22 set](#)

Sample sent on : 2016/01/25
Results reported (%) : 22 (100%)

Reporting deadline : 2016/02/01

1. [Summary report on this EQA survey](#)
2. [The distribution of G6PD reported in this survey](#)
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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			
F02	F02	2	5.5	-12.7%	-1.8	-1.5	3.8	-15.6%	-2.2	-1.3	11.1	-2.6%	-0.4	-0.5	2.2	2.0	1.8
F03	F03	5	5.7	-9.5%	-1.4	-1.2	4.0	-11.1%	-1.6	-1.0	11.0	-3.5%	-0.5	-0.6	2.3	2.1	2.0
F04	F04	4	5.8	-7.9%	-1.1	-1.0	4.1	-8.9%	-1.3	-0.8	11.1	-2.6%	-0.4	-0.5	2.3	2.2	2.0
F05	F05	7	5.9	-6.3%	-0.9	-0.8	4.2	-6.7%	-1.0	-0.7	9.9	-13.2%	-1.9	-1.7	2.3	2.1	2.0
F06	F06	10	6.0	-4.8%	-0.7	-0.7	4.4	-2.2%	-0.3	-0.3	11.7	2.6%	0.4	0.1	2.2	2.0	1.7
F07	F07	4	6.1	-3.2%	-0.5	-0.5	4.4	-2.2%	-0.3	-0.3	10.6	-7.0%	-1.0	-1.0	2.4	2.3	2.1
F08	F08	5	6.9	9.5%	1.4	0.8	4.8	6.7%	1.0	0.3	12.4	8.8%	1.3	0.8	2.2	2.9	1.9
F09	F09	7	6.2	-1.6%	-0.2	-0.3	4.3	-4.4%	-0.6	-0.5	11.4	0.0%	0.0	-0.2	2.3	2.2	1.9
F10	F10	3	7.0	11.1%	1.6	1.0	4.9	8.9%	1.3	0.5	12.5	9.6%	1.4	0.9	2.5	2.4	2.2
F11	F11	4	6.2	-1.6%	-0.2	-0.3	4.5	0.0%	0.0	-0.2	11.2	-1.8%	-0.3	-0.4	2.5	2.4	2.0
F12	F12	7	7.1	12.7%	1.8	1.2	5.3	17.8%	2.5	1.2	13.2	15.8%	2.3	1.6	2.6	2.4	2.2
F13	F13	7	7.5	19.0%	2.7	1.8	5.6	24.4%	3.5	1.7	15.0	31.6%	4.5	3.4	2.4	2.1	2.0
F14	F14	7	7.0	11.1%	1.6	1.0	5.9	31.1%	4.4	2.2	11.4	0.0%	0.0	-0.2	3.1	2.8	2.7
F15	F15	5	6.5	3.2%	0.5	0.2	4.8	6.7%	1.0	0.3	11.9	4.4%	0.6	0.3	2.3	2.3	2.0
F16	F16	7	7.0	11.1%	1.6	1.0	5.1	13.3%	1.9	0.8	11.8	3.5%	0.5	0.2	2.4	2.2	2.1
F17	F17	7	6.7	6.3%	0.9	0.5	5.0	11.1%	1.6	0.7	12.7	11.4%	1.6	1.1	2.3	2.2	2.0
F18	F18	5	6.3	0.0%	0.0	-0.2	4.4	-2.2%	-0.3	-0.3	11.3	-0.9%	-0.1	-0.3	2.0	1.9	1.8
F19	F19	2	5.9	-6.3%	-0.9	-0.8	4.3	-4.4%	-0.6	-0.5	10.7	-6.1%	-0.9	-0.9	2.5	2.3	2.1
F20	F20	5	2.7	-57.1%	-8.2	-6.2	2.1	-53.3%	-7.6	-4.2	5.3	-53.5%	-7.6	-6.3	2.2	2.4	2.2
F21	F21	7	6.1	-3.2%	-0.5	-0.5	4.4	-2.2%	-0.3	-0.3	12.3	7.9%	1.1	0.7	2.4	2.4	2.3
F22	F22	4	6.5	3.2%	0.5	0.2	4.8	6.7%	1.0	0.3	12.0	5.3%	0.8	0.4	2.2	2.2	1.9
F23	F23	7	6.3	0.0%	0.0	-0.2	4.5	0.0%	0.0	-0.2	11.9	4.4%	0.6	0.3	2.4	2.3	2.1
Total participating laboratories = 22																	
Xa (Median)	-	5	6.3				4.5				11.4				2.3	2.3	2.0
σ _p	-	-	0.441				0.315				0.798				-	-	-
Range	-	2-7	2.7-7.5				2.1-5.9				5.3-15.0				2.0-3.1	1.9-2.9	1.8-2.7
n	-	-	21				21				21				21	21	21
Mean	-	-	6.4				4.6				11.6				2.4	2.3	2.0
S.D.	-	-	0.6				0.6				1.0				0.1	0.2	0.2
C.V.	-	-	9.4%				13.0%				8.6%				4.2%	8.7%	10.0%
Note:																	
1. D% = [(X - Xa) / Xa] x 100% ; X = Your Results , Xa = Assigned value																	
2. z score = D / σ _p ; D = X - Xa , σ _p = SD for proficiency assessment																	
3. SDI = (X - Mean) / SD ; SD = standard deviation of peer group																	
4. The assigned value (Xa) is the median of all the results reported of this EQA sample																	
5. SD for proficiency assessment (σ _p) = 7% x Xa ; but while Xa < 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 / Xa) x 100%																	

[Ordered by Referral Hosp.](#)



Newborn Screening QA Program

[Preventive Medicine Foundation](#)



[Newborn Screening Reference Center](#)

[National Institutes of Health](#)



[University of the Philippines](#)



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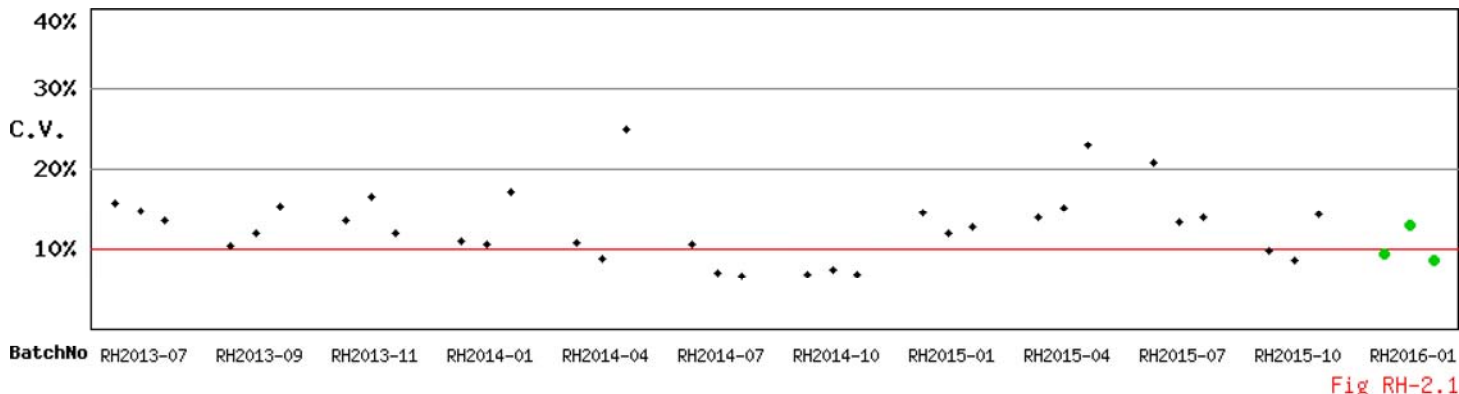
625 Pedro Gil St., Ermita, Manila 1000, Philippines

Fax : + 632-522-4396; info@newbornscreening.ph

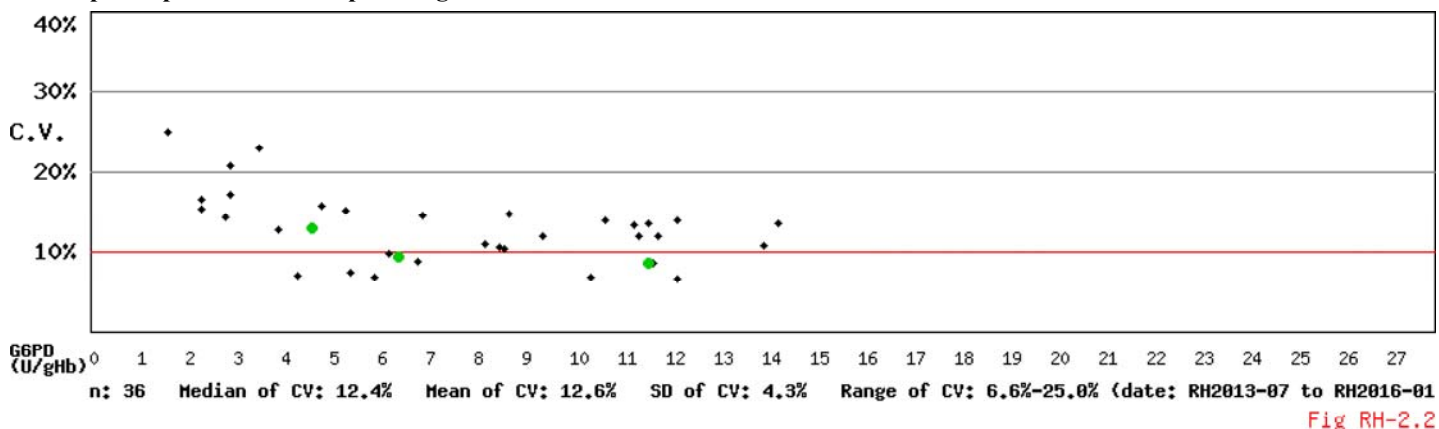
Long Term Observation of Blood G6PD Quantitative Test QA Survey Results

Survey No : RH2016-01 (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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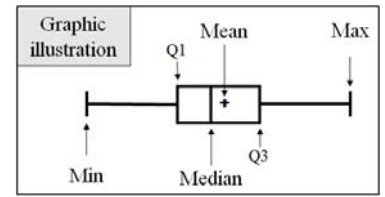
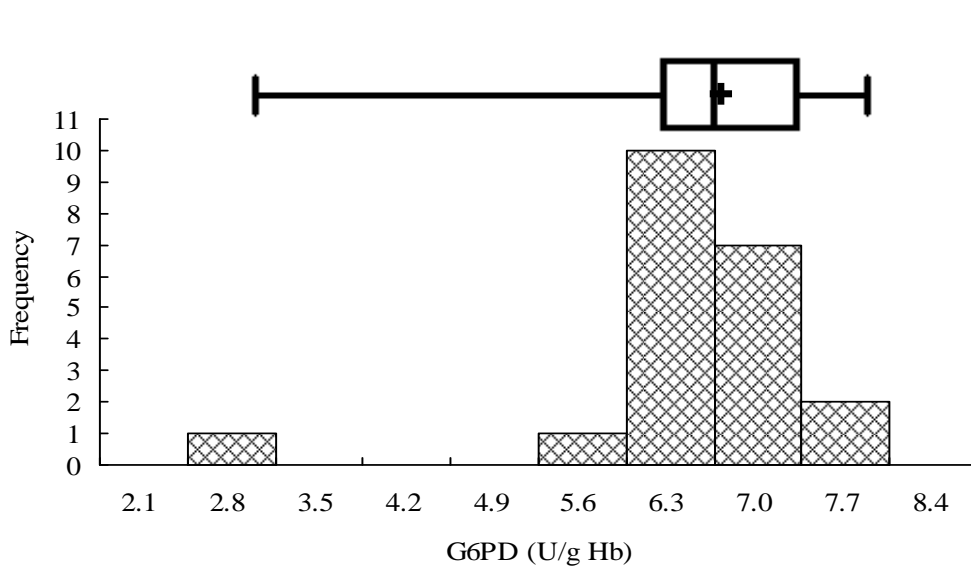
RH2016-01 External Quality Assurance -G6PD

Survey No. : RH2016-01

Sample sent on : 2016/01/25

Reporting deadline : 2016/02/01

Results reported (%) : 95.5%



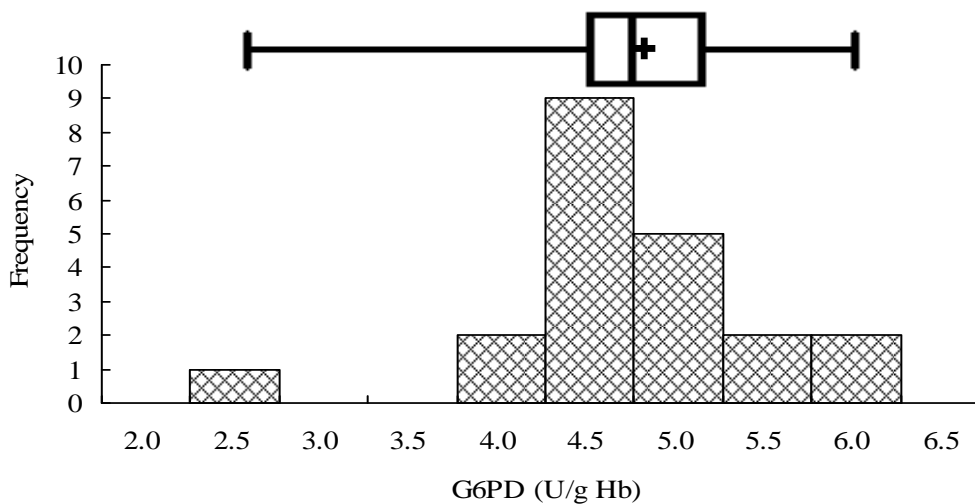
Sample 1

Median = 6.3. (n = 21)

Mean* = 6.4 (n = 21)

SD* = 0.6

CV = 9.4%



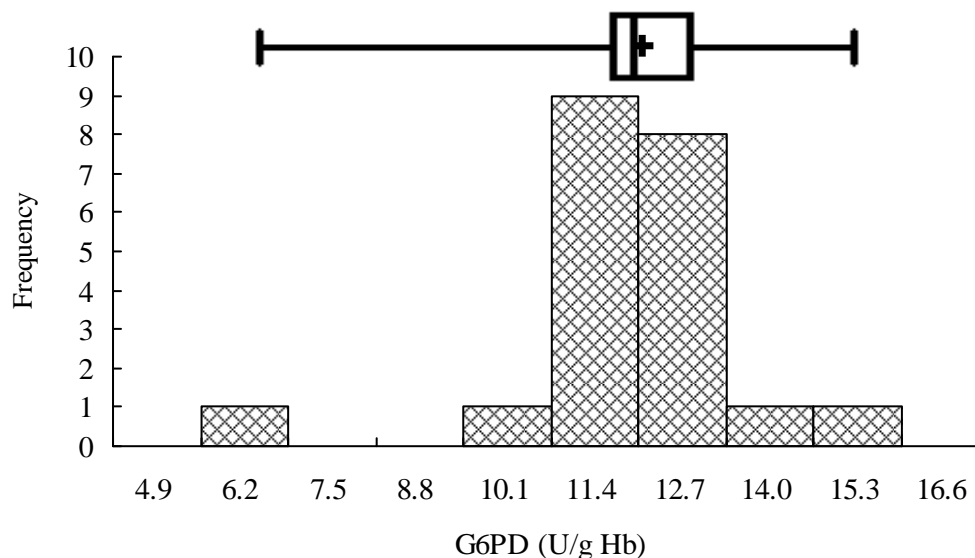
Sample 2

Median = 4.5 (n = 21)

Mean* = 4.6 (n = 21)

SD* = 0.6

CV = 13.0%



Sample 3

Median = 11.4 (n = 21)

Mean* = 11.6 (n = 21)

SD* = 1.0

CV = 8.6%

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

Fig PHIQ-3

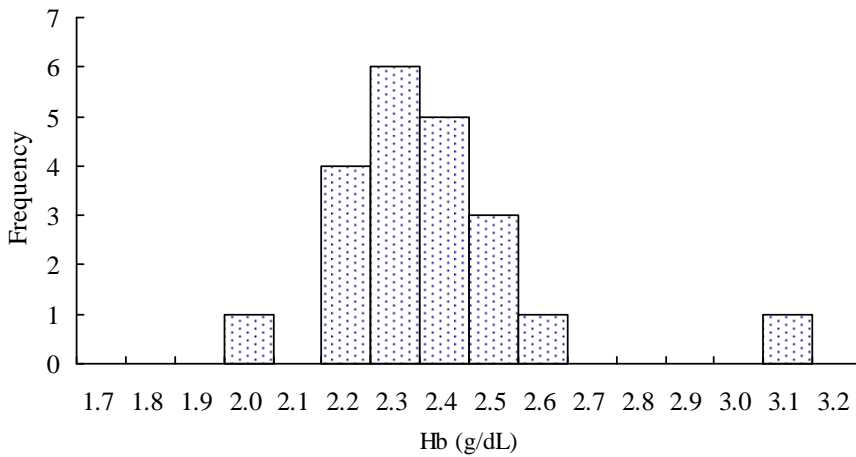
RH2016-01 External Quality Assurance -Hb

Survey No. : RH2016-01

Sample sent on : 2016/01/25

Reporting deadline : 2016/02/01

Results reported (%) : 95.5%



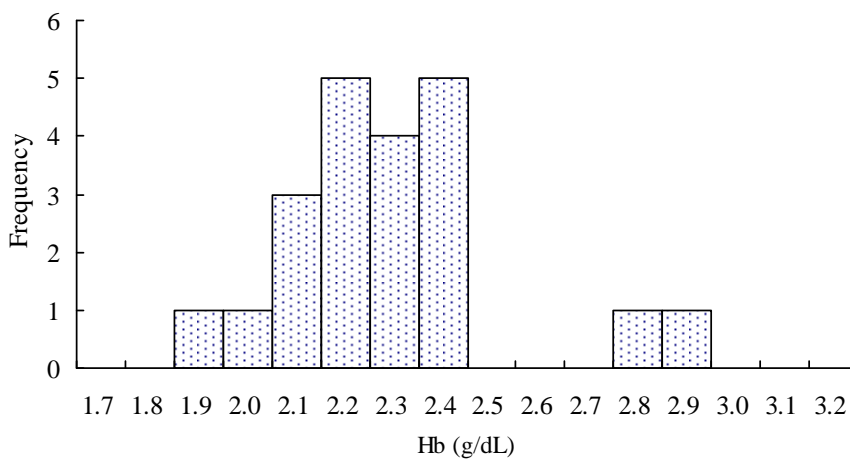
Sample 1

Median = 2.3 (n = 21)

Mean* = 2.4 (n = 21)

SD* = 0.1

CV = 4.2%



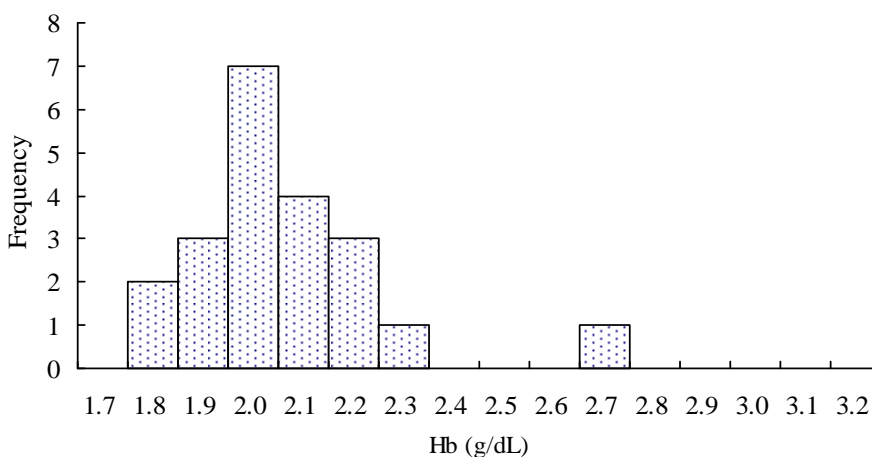
Sample 2

Median = 2.3 (n = 21)

Mean* = 2.3 (n = 21)

SD* = 0.2

CV = 8.7%



Sample 3

Median = 2.0 (n = 21)

Mean* = 2.0 (n = 21)

SD* = 0.2

CV = 10.0%

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

Fig PHIQ-4