External Quality Assurance (EQA) of G6PD Quantitative Test

Survey No. : RH2014-07 | Sample sent on : 2014/07/14 | Reporting deadline : 2014/07/21

Sample sent : 16 set | Results reported (%) : 14 (88%)

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

Lab	Referral Hosp.	Report (day)	Sample 1				Sample 2				Sample 3				Hb 1	Hb 2	Hb 3
			(U/gHb)	*D%*	*z* score	SDI	(U/gHb)	*D%*	*z* score	SDI	(U/gHb)	*D%*	*z* score	SDI	(g/dL)	(g/dL)	(g/dL)
F01	F01	1	8.9	3.5%	0.5	0.4	4.4	2.3%	0.3	0.3	11.9	-2.5%	-0.4	-0.4	2.0	2.0	2.3
F02	F02	1	9.1	5.8%	0.8	0.7	4.5	4.7%	0.7	0.7	14.3	17.2%	2.5	2.6	2.2	2.2	2.3
F03	F03	4	8.2	-4.7%	-0.7	-0.3	4.1	-4.7%	-0.7	-0.7	11.3	-7.4%	-1.1	-1.1	2.0	2.0	2.3
F04	F04	7	9.9	15.1%	2.2	1.6	5.0	16.3%	2.3	2.3	12.9	5.7%	0.8	0.9	1.7	1.7	2.0
F05	F05	4	8.6	0.0%	0.0	0.1	4.4	2.3%	0.3	0.3	12.2	0.0%	0.0	0.0	2.1	2.1	2.2
F06	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.
F07	F07	7	7.3	-15.1%	-2.2	-1.3	3.7	-14.0%	-2.0	-2.0	11.5	-5.7%	-0.8	-0.9	2.1	2.1	2.1
F08	F08	4	8.4	-2.3%	-0.3	-0.1	4.3	0.0%	0.0	0.0	12.3	0.8%	0.1	0.1	1.9	1.9	2.2
F09	F09	7	7.2	-16.3%	-2.3	-1.4	3.5	-18.6%	-2.7	-2.7	10.8	-11.5%	-1.6	-1.8	2.1	2.1	2.3
F10	F10	1	8.9	3.5%	0.5	0.4	4.3	0.0%	0.0	0.0	12.0	-1.6%	-0.2	-0.2	1.9	1.8	2.2
F11	F11	7	8.7	1.2%	0.2	0.2	4.3	0.0%	0.0	0.0	12.9	5.7%	0.8	0.9	2.1	2.0	2.2
F12	F12	7	9.4	9.3%	1.3	1.0	4.7	9.3%	1.3	1.3	13.0	6.6%	0.9	1.0	2.0	2.2	2.4
F13	F13	4	8.6	0.0%	0.0	0.1	4.4	2.3%	0.3	0.3	11.8	-3.3%	-0.5	-0.5	1.9	2.0	2.2
F14	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.
F15	F15	6	7.5	-12.8%	-1.8	-1.1	4.0	-7.0%	-1.0	-1.0	12.5	2.5%	0.4	0.4	2.4	2.2	2.2
F16	F16	7	8.3	-3.5%	-0.5	-0.2	4.2	-2.3%	-0.3	-0.3	12.1	-0.8%	-0.1	-0.1	2.2	2.1	2.3
Total participating laboratories = 16																	
Xa (Median)	-	5	8.6				4.3				12.2				2.1	2.1	2.2
σ_p	-	-	0.602				0.301				0.854				-	-	-
Range	-	1-7	7.2-9.9				3.5-5.0				10.8-14.3				1.7-2.4	1.7-2.2	2.0-2.4
n	-	-	14				14				14				14	14	14
Mean	-	-	8.5				4.3				12.2				2.0	2.1	2.2
S.D.	-	-	0.9				0.3				0.8				0.2	0.1	0.1
C.V.	-	-	10.6%				7.0%				6.6%				10.0%	4.8%	4.5%

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.

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updated : 28 Jul, 2014

Long Term Observation of Blood G6PD Quantitative Test QA Survey Results

Survey No : RH2014-07 (in green ●)

- Total participants' CV result ploted against surveys

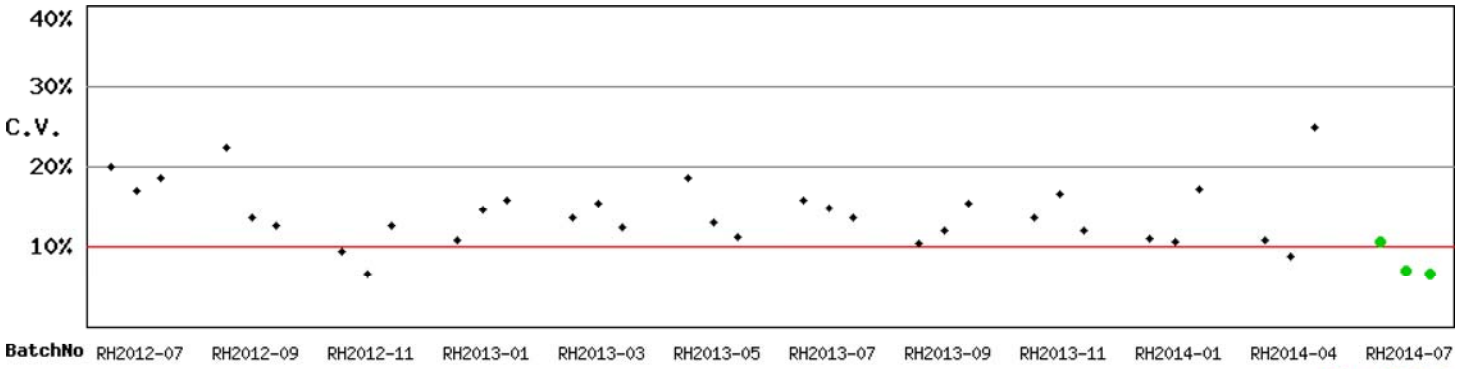

Fig RH-2.1

- Total participants' CV result ploted against G6PD activities

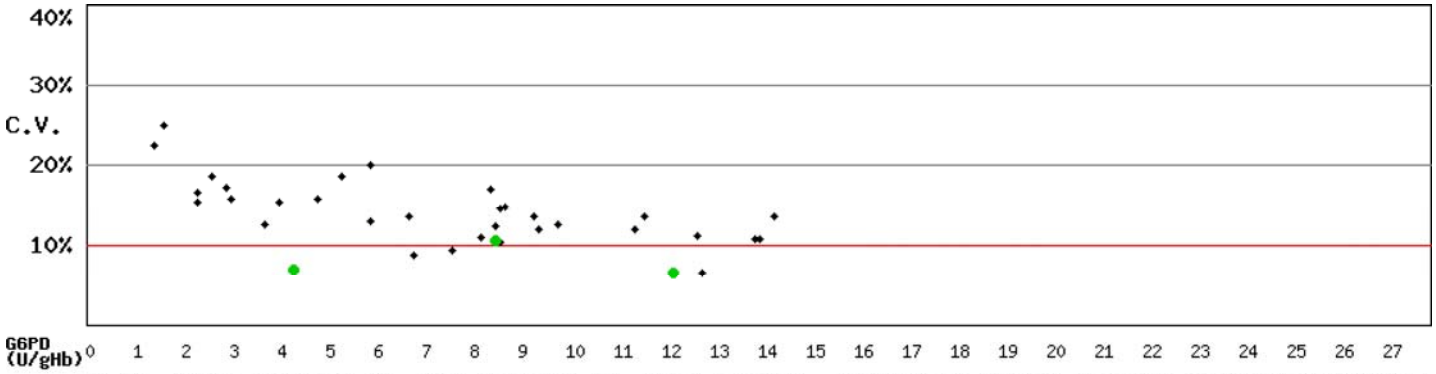

Fig RH-2.2

* Mean and SD are calculated by Robust method according to ISO 13528:2005 since 2014

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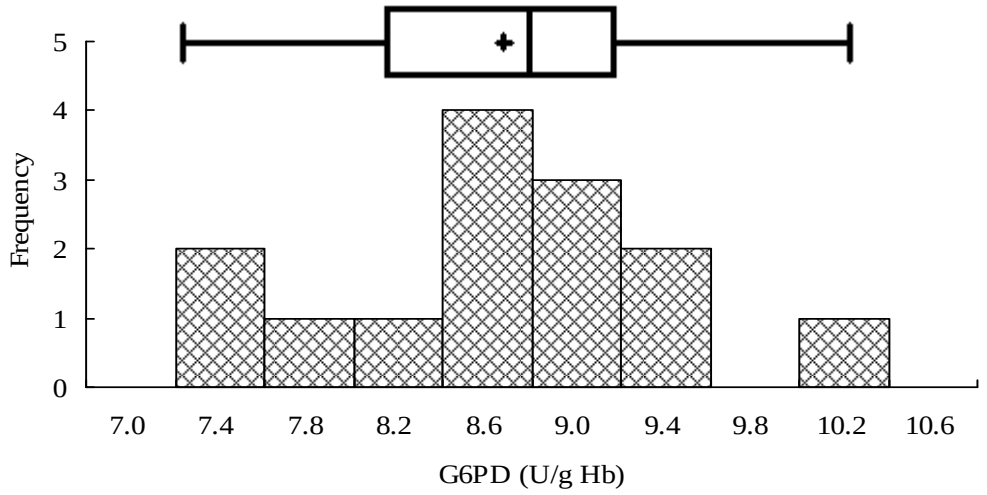
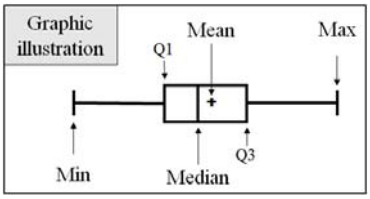
RH2014-07 External Quality Assurance -G6PD

Survey No. : RH2014-07 Sample sent on : 2014/07/14 Reporting deadline : 2014/07/21

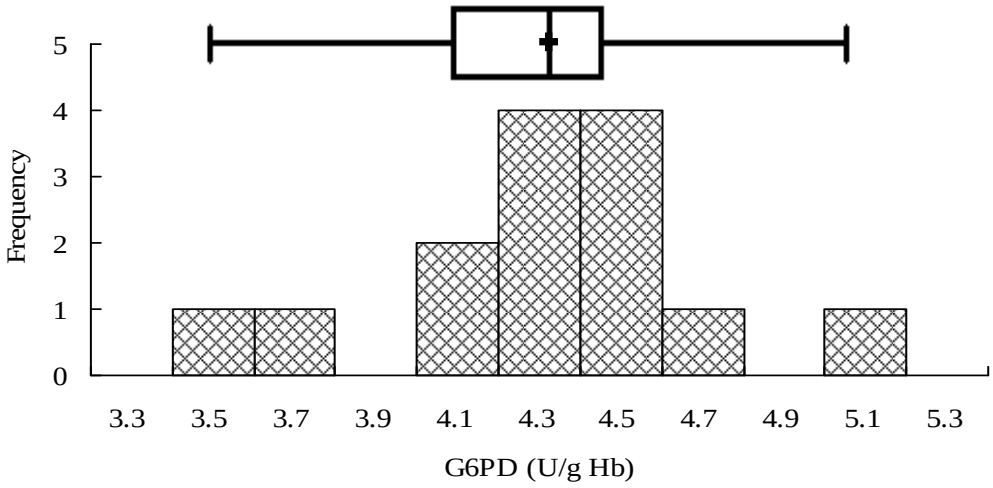
Results reported (%) : 87.5%





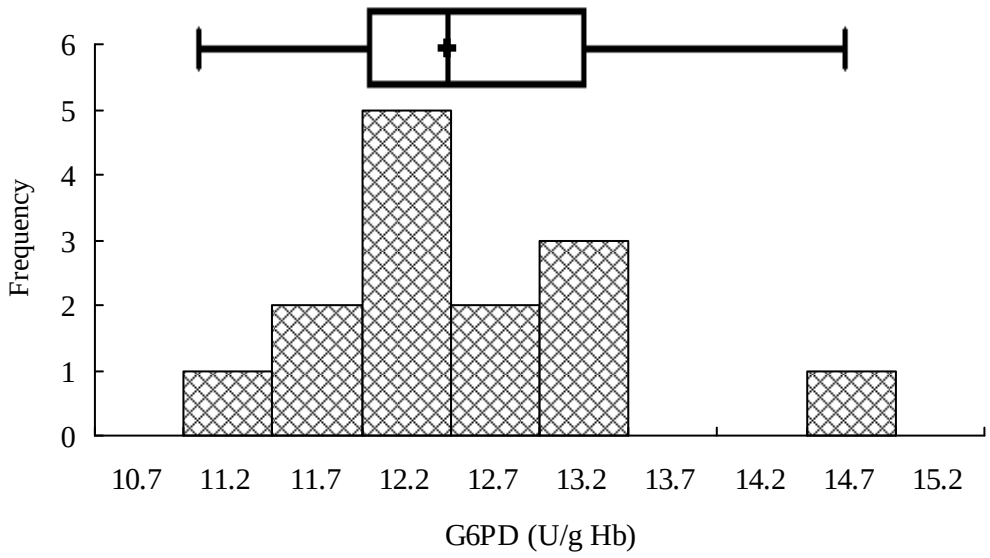
Sample 1

Median = 8.6 (n = 14)
Mean* = 8.5 (n = 14)
SD* = 0.9



Sample 2

Median = 4.3 (n = 14)
Mean* = 4.3 (n = 14)
SD* = 0.3



Sample 3

Median = 12.2 (n = 14)
Mean* = 12.2 (n = 14)
SD* = 0.8

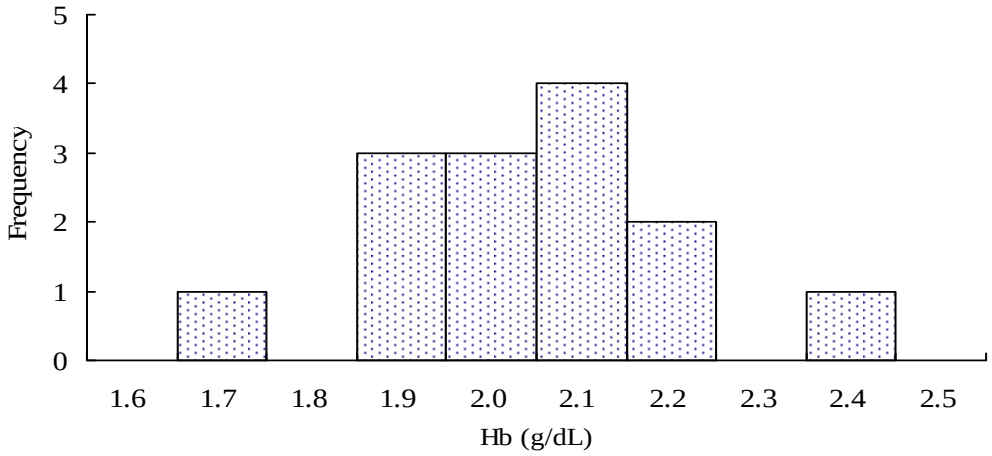
*Robust results (Mean and SD) were calculated by Algorithm A according to ISO 13528:2005

Fig PHIQ-3

RH2014-07 External Quality Assurance -Hb

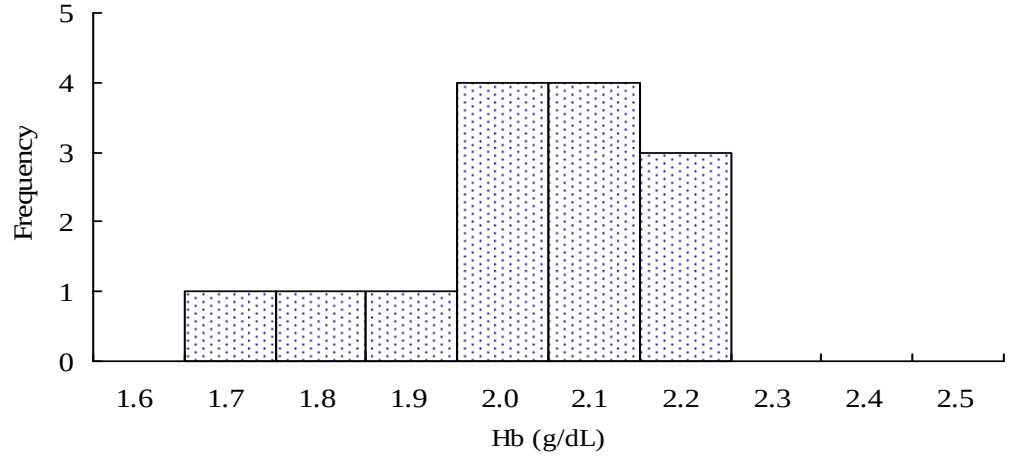
Survey No. : RH2014-07 Sample sent on : 2014/07/14 Reporting deadline : 2014/07/21

Results reported (%) : 87.5%



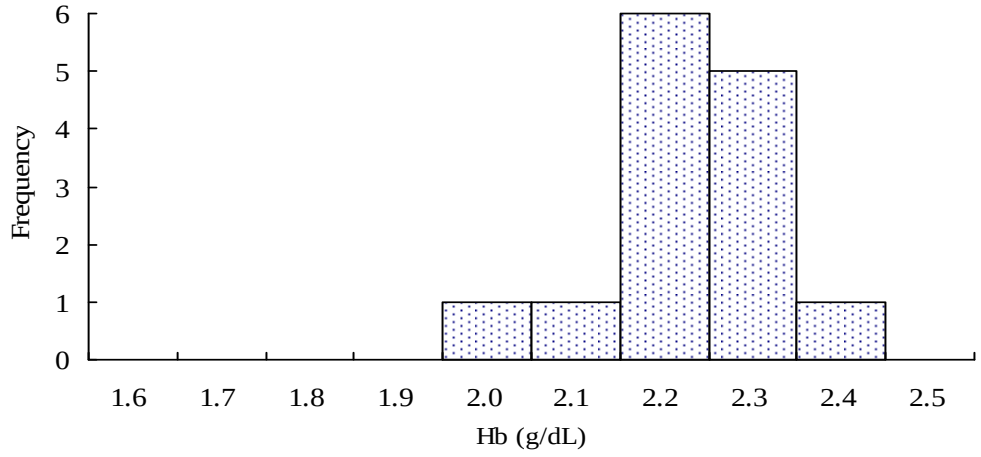
Sample 1

Median = 2.1 (n = 14)
Mean* = 2.0 (n = 14)
SD* = 0.2



Sample 2

Median = 2.1 (n = 14)
Mean* = 2.1 (n = 14)
SD* = 0.1



Sample 3

Median = 2.2 (n = 14)
Mean* = 2.2 (n = 14)
SD* = 0.1

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

Fig PHIQ-4