

External Quality Assurance (EQA) of G6PD Quantitative Test

Survey No. : RH2013-07

Sample sent on : 2013/07/01

Reporting deadline : 2013/07/08

Sample sent : [15 set](#)

Results reported (%) : 15 (100%)

- | | |
|---|---|
| <p>1. Summary report on this EQA survey</p> <p>2. The distribution of G6PD reported in this survey</p> <p>3. The distribution of Hb reported in this survey</p> | <p>4. Long term observation of inter laboratory CV vs. surveys</p> <p>5. Long term observation of inter laboratory CV vs. G6PD activities</p> <p>6. Deviation graph for individual laboratory</p> |
|---|---|

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

Lab	Referral Hosp.	Receive (day)	Report (day)	S 1		S 2		S 3		Hb 1		Hb 2		Hb 3	
				(U/gHb)	SDI	(U/gHb)	SDI	(U/gHb)	SDI	(g/dL)	SDI	(g/dL)	SDI	(g/dL)	SDI
F01	F01	7	7	5.8	1.3	10.6	1.5	17.0	1.4	2.2	-1.0	1.9	-0.5	2.1	-0.7
F02	F02	1	2	5.3	0.6	9.4	0.5	15.8	0.8	2.4	0.0	2.1	0.5	2.3	0.0
F03	F03	1	4	5.7	1.1	10.0	1.0	16.0	0.9	2.2	-1.0	2.0	0.0	2.2	-0.3
F04	F04	1	5	4.9	0.1	8.2	-0.4	13.0	-0.7	2.5	0.5	2.2	1.0	2.5	0.7
F05	F05	2	4	4.5	-0.4	8.5	-0.2	13.9	-0.2	2.3	-0.5	2.0	0.0	2.2	-0.3
F06	F06	2	4	4.8	0.0	9.0	0.2	15.5	0.6	2.3	-0.5	2.0	0.0	2.2	-0.3
F07	F07	2	7	7.7	3.6	10.9	1.7	16.0	0.9	2.2	-1.0	1.9	-0.5	2.2	-0.3
F08	F08	1	3	4.7	-0.1	8.3	-0.3	13.7	-0.3	2.3	-0.5	1.8	-1.0	1.8	-1.7
F09	F09	1	5	5.5	0.9	9.7	0.8	16.7	1.3	1.8	-3.0	1.6	-2.0	1.7	-2.0
F10	F10	1	2	4.0	-1.0	7.8	-0.7	12.3	-1.1	2.5	0.5	2.3	1.5	2.7	1.3
F11	F11	1	4	3.7	-1.4	7.3	-1.1	11.9	-1.3	2.4	0.0	2.0	0.0	2.3	0.0
F12	F12	1	7	4.4	-0.5	7.8	-0.7	15.7	0.7	2.8	2.0	2.1	0.5	2.6	1.0
F13	F13	1	7	5.7	1.1	8.6	-0.1	14.1	-0.1	2.3	-0.5	2.0	0.0	2.3	0.0
F14	F14	1	8	3.6	-1.5	6.3	-1.8	10.6	-1.9	2.6	1.0	2.2	1.0	2.6	1.0
F15	F15	2	7	4.1	-0.9	7.6	-0.8	12.8	-0.8	2.6	1.0	2.3	1.5	2.5	0.7

Total participating laboratories = 15

Median	-	1	5	4.8	8.5	14.1	2.3	2.0	2.3
Range	-	1-7	2-8	3.6-7.7	6.3-10.9	10.6-17.0	1.8-2.8	1.6-2.3	1.7-2.7
n for Mean	-	-	-	14	15	15	15	15	15
Mean	-	-	-	4.8	8.7	14.3	2.4	2.0	2.3
S.D.	-	-	-	0.8	1.3	1.9	0.2	0.2	0.3
C.V.	-	-	-	15.8%	14.7%	13.5%	9.8%	9.2%	12.3%
Reference	-	-	-	5.7	9.2	17.9	2.4	2.2	2.3

- Note:
- 1). : Outlier (this result has been dropped and was not included in calculation of Mean, SD and CV).
 - 2). Standard Deviation Index (SDI) = (Individual Result - Mean) / SD
 - 3). The reference values were determined by using [Trinity Biotech 345-UV](#) reagent at the QC reference Lab.

[Ordered by Referral Hosp.](#)



Newborn Screening QA Program

[Preventive Medicine Foundation](#)

P.O. Box 26-624, Taipei, Taiwan 10699

Tel : + 886-2-2703-6080; j@Fax : +886-2-2703-6070

g6pd@g6pd.tw

updated : 10 Jul, 2013



Newborn Screening Reference Center

[National Institutes of Health](#)



[University of the Philippines](#)

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

Fax : + 632-522-4396;

info@nsrc-nih.org.ph



Long Term Observation of G6PD QA Survey for Confirmatory Hosp.

Survey No : RH2013-07 (in green ●)

- Total participants' CV result plotted against surveys

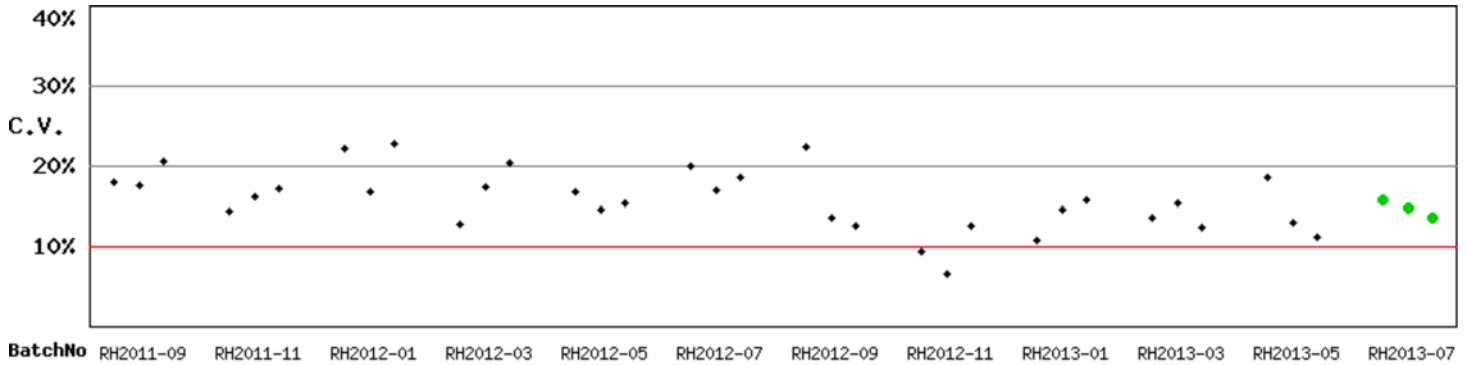


Fig RH-2.1

- Total participants' CV result plotted against G6PD activities

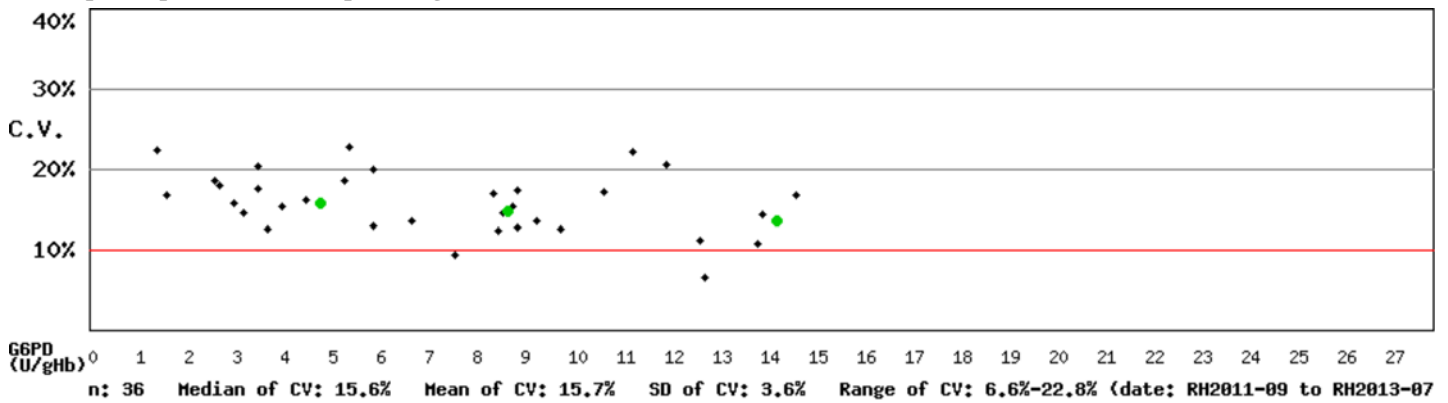


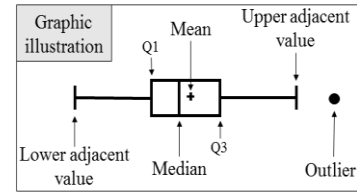
Fig RH-2.2

Kwang-Jen Hsiao, Ph.D.
Preventive Medicine Foundation
P.O. Box 26-624
Taipei, Taiwan, 10699

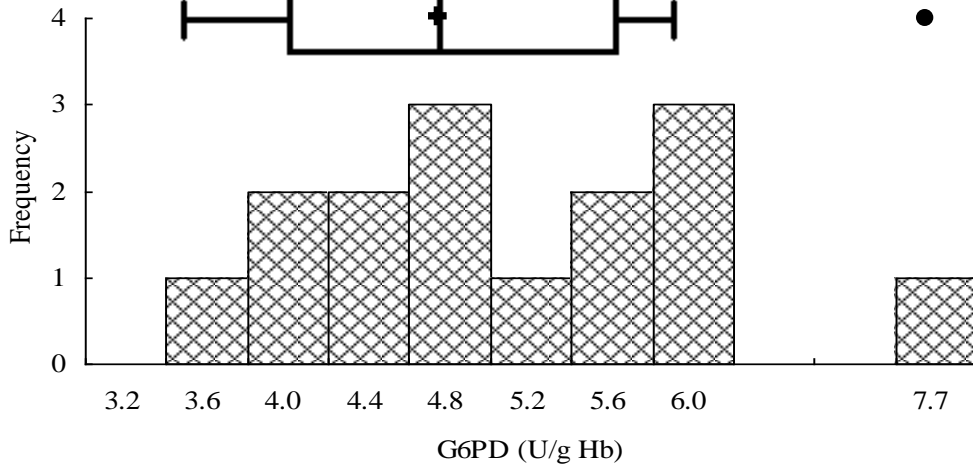
Tel : +886-2-2703-6080
Fax : +886-2-2703-6070
E-mail : g6pd@g6pd.tw
URL : <http://eqa.g6pd.tw>

External Quality Assurance -G6PD

Survey No :RH2013-07



● Outlier (out of 3 SD)



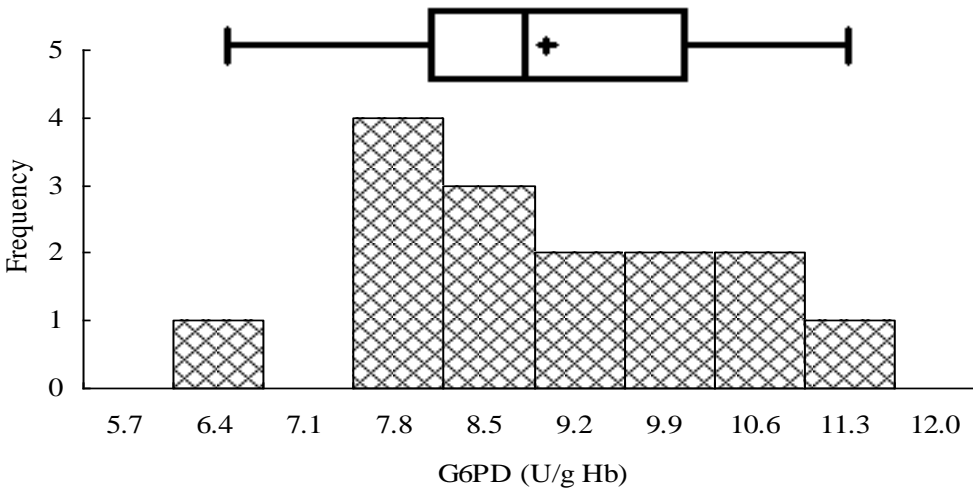
Sample 1

Median = 4.8 (n = 15)

Mean = 4.8 (n = 14)

S.D. = 0.8

Ref. Value* = 5.7



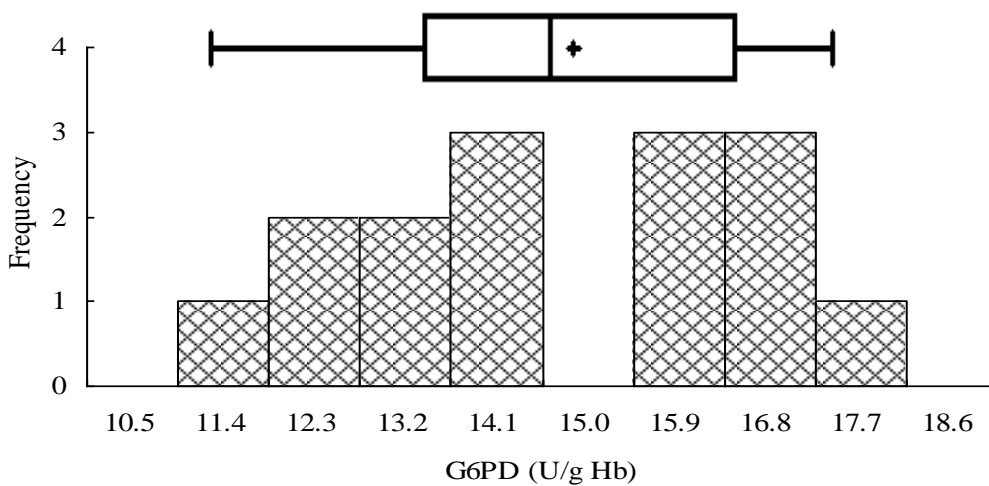
Sample 2

Median = 8.5 (n = 15)

Mean = 8.7 (n = 15)

S.D. = 1.3

Ref. Value* = 9.2



Sample 3

Median = 14.1 (n = 15)

Mean = 14.3 (n = 15)

S.D. = 1.9

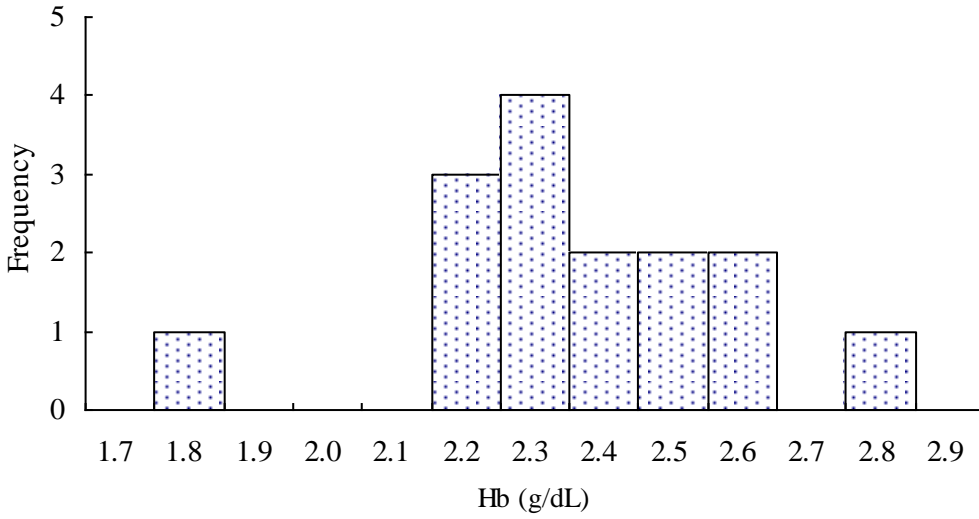
Ref. Value* = 17.9

* The reference values were determined by using Trinity Biotech 345-UV reagent at the QC reference Lab.

Fig PHIQ-3

External Quality Assurance-Hb

Survey No : RH2013-07



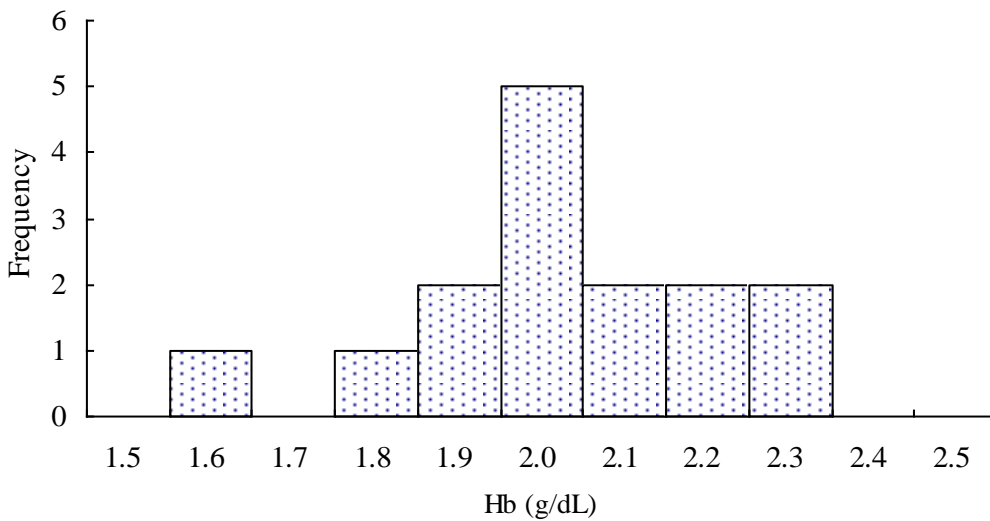
Sample 1

Median = 2.3 (n = 15)

Mean = 2.4 (n = 15)

S.D. = 0.2

Ref. Value = 2.4



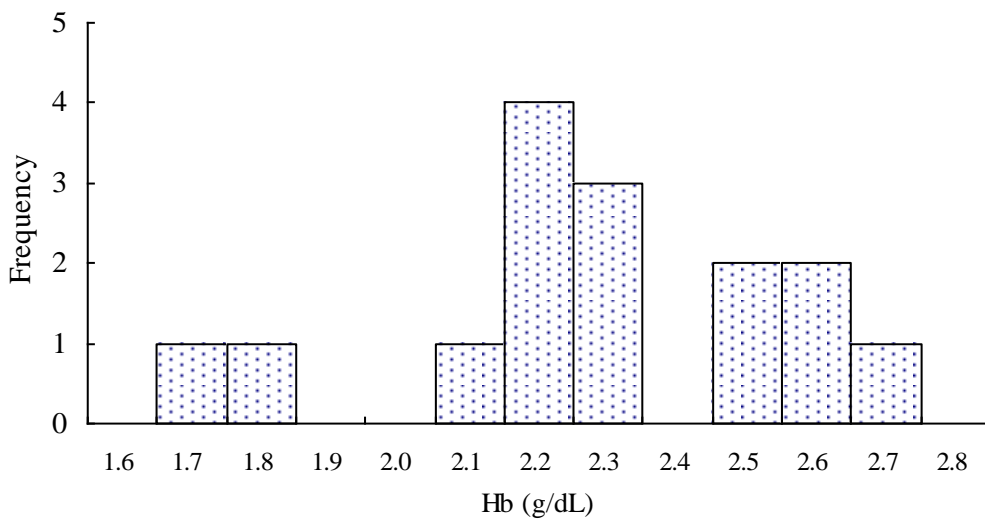
Sample 2

Median = 2.0 (n = 15)

Mean = 2.0 (n = 15)

S.D. = 0.2

Ref. Value = 2.2



Sample 3

Median = 2.3 (n = 15)

Mean = 2.3 (n = 15)

S.D. = 0.3

Ref. Value = 2.3

Fig PHIQ-4

External Quality Assurance (EQA) Program for G6PD Quantitative Test in Philippines

Survey No. : RH2013-07 Sample sent on : 2013 / 07 / 01

Reporting deadline : 2013 / 07 / 08


This Survey [S2](#) has been used in 2010-2013 (n = 3 ; Survey / Sample No.) :
[RH2010-03/S3](#) ; [RH2012-11/S1](#) ; [RH2013-07/S2](#) ;

Intermediate Measurement Precision of G6PD Quantitative Test

Lab	Survey : RH2013-07 / Sample 2		Program period: 2010 ~ 2013 ³			
	U/gHb	SDI ²	Mean	n	SD	CV
F01	5.8	-1.1	7.9	3	1.9	24.1%
F02	5.3	-1.0	7.8	3	2.6	33.3%
F03	5.7	-1.0	7.1	3	1.4	19.7%
F04	4.9	-1.2	6.9	3	1.7	24.6%
F05	4.5	-0.7	5.9	2	2.0	33.9%
F06	4.8	-0.7	5.8	2	1.4	24.1%
F07	7.7	-1.3	8.1	3	0.3	3.7%
F08	4.7	-1.1	6.6	3	1.7	25.8%
F09	5.5	-0.7	6.3	2	1.1	17.5%
F10	4.0	-1.0	6.3	3	2.3	36.5%
F11	3.7	—	5.3	2	2.3	43.4%
F12	4.4	—	5.6	2	1.7	30.4%
F13	5.7	—	5.7	1	—	—
F14	3.6	—	3.6	1	—	—
F15	4.1	—	4.1	1	—	—
Total participating laboratories = 10						
Median	4.8	-1.0	6.3	—	1.7	25.2%
Range	3.6 ~ 7.7	-1.3 ~ -0.7	3.6 ~ 8.1	—	0.3 ~ 2.6	3.7% ~ 43.4%

- 1). : Outlier (this result has been dropped and was not included in calculation of Mean, SD and CV).
- 2). Standard Deviation Index (SDI) = (Individual Result - Individual Mean) / Individual SD
- 3). Survey / Sample No. : [RH2010-03/S3](#) ; [RH2012-11/S1](#) ; [RH2013-07/S2](#) ;
- 4). Intermediate Measurement Precision ; ISO 3534-2:2006

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 **Newborn Screening QA Program**
[Preventive Medicine Foundation](#)

P.O. Box 26-624, Taipei, Taiwan 10699

Tel : + 886-2-2703-6080; Fax : +886-2-2703-6070

g6pd@g6pd.tw



[Newborn Screening Reference Center](#)

[National Institutes of Health](#)



[University of the Philippines](#)

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

Fax : + 632-522-4396;

info@nsrc-nih.org.ph

