

External Quality Assurance (EQA) of G6PD Quantitative Test

Survey No. : RH2013-01

Sample sent on : 2013/01/14

Reporting deadline : 2013/01/21

Sample sent : [12 set](#)

Results reported (%) : 12 (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	0	2	13.4	-0.3	8.6	0.0	2.8	-0.4	1.2	-2.8	2.0	-1.0	2.1	-0.5
F02	F02	1	3	14.1	0.1	7.6	-0.8	3.4	0.8	2.3	0.0	2.3	2.0	2.3	0.5
F03	F03	1	4	13.9	0.0	9.0	0.3	2.7	-0.6	2.1	-0.5	1.9	-2.0	2.0	-1.0
F04	F04	1	4	12.7	-0.8	7.7	-0.7	2.6	-0.8	2.4	0.3	2.2	1.0	2.3	0.5
F05	F05	2	7	13.1	-0.5	7.7	-0.7	2.9	-0.2	2.2	-0.2	2.0	-1.0	2.1	-0.5
F06	F06	2	3	17.2	2.2	10.2	1.2	3.9	1.8	2.3	0.0	2.2	1.0	2.1	-0.5
F07	F07	1	8	16.2	1.5	11.6	2.3	3.9	1.8	2.3	0.0	2.1	0.0	2.2	0.0
F08	F08	1	3	12.3	-1.1	7.9	-0.5	2.7	-0.6	2.5	0.5	2.0	-1.0	2.0	-1.0
F09	F09	1	5	2768.3	1836.3	1695.7	1297.8	589.3	1172.6	2.3	0.0	2.2	1.0	2.3	0.5
F10	F10	1	1	13.3	-0.4	8.6	0.0	2.7	-0.6	2.3	0.0	2.0	-1.0	2.1	-0.5
F11	F11	1	5	13.7	-0.1	7.6	-0.8	2.8	-0.4	2.7	1.0	2.3	2.0	2.3	0.5
F12	F12	1	7	13.2	-0.5	8.5	-0.1	2.9	-0.2	2.4	0.3	2.3	2.0	2.5	1.5
Total participating laboratories = 12															
Median	-	1	4	13.6		8.6		2.9		2.3		2.2		2.2	
Range	-	0-2	1-8	12.3-2768.3		7.6-1695.7		2.6-589.3		1.2-2.7		1.9-2.3		2.0-2.5	
n for Mean	-	-	-	11		11		11		12		12		12	
Mean	-	-	-	13.9		8.6		3.0		2.3		2.1		2.2	
S.D.	-	-	-	1.5		1.3		0.5		0.4		0.1		0.2	
C.V.	-	-	-	10.7%		14.6%		15.8%		16.1%		6.7%		6.9%	
Reference	-	-	-	17.9		9.3		3.9		2.3		2.3		2.4	

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](#)



Newborn Screening Reference Center

[National Institutes of Health](#)



University of the Philippines

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

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

g6pd@g6pd.tw

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

Fax : +
632-522-4396;

info@nsrc-nih.org.ph

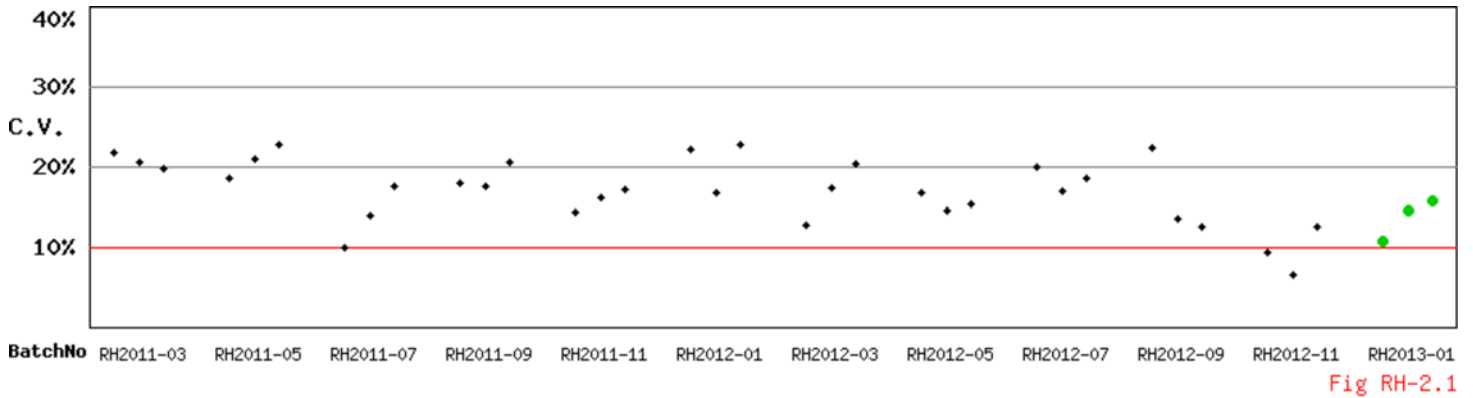
updated : 26 Jan, 2013

[\[HOME\]](#)

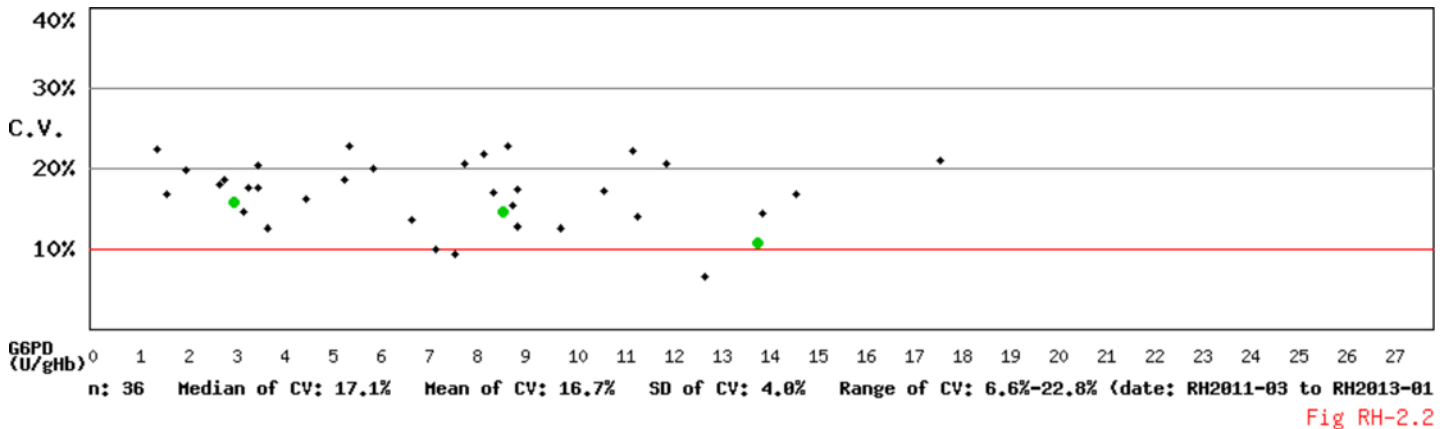
Long Term Observation of G6PD QA Survey for Confirmatory Hosp.

Survey No : RH2013-01 (in green ●)

- Total participants' CV result plotted against surveys



- Total participants' CV result plotted against G6PD activities

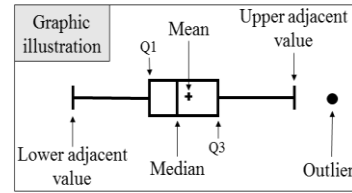


Kwang-Jen Hsiao, Ph.D.
Preventive Medicine Foundation
P.O. Box 26-624
Taipei, Taiwan, 10699

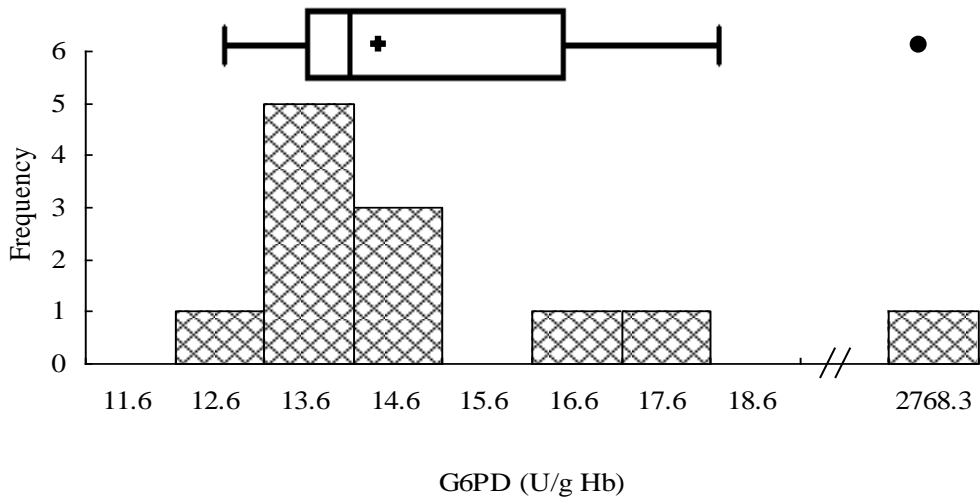
Tel : +886-2-2703-6080
Fax : +886-2-2703-6070
E-mail : g6pd@g6pd.tw
URL : <http://eqa.g6pd.tw>

External Quality Assurance -G6PD

Survey No :RH2013-01

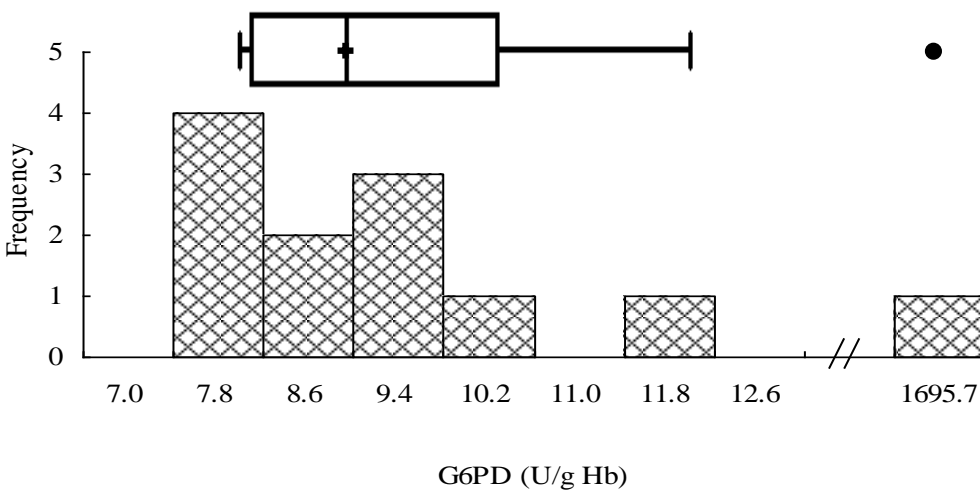


● Outlier (out of 3 SD)



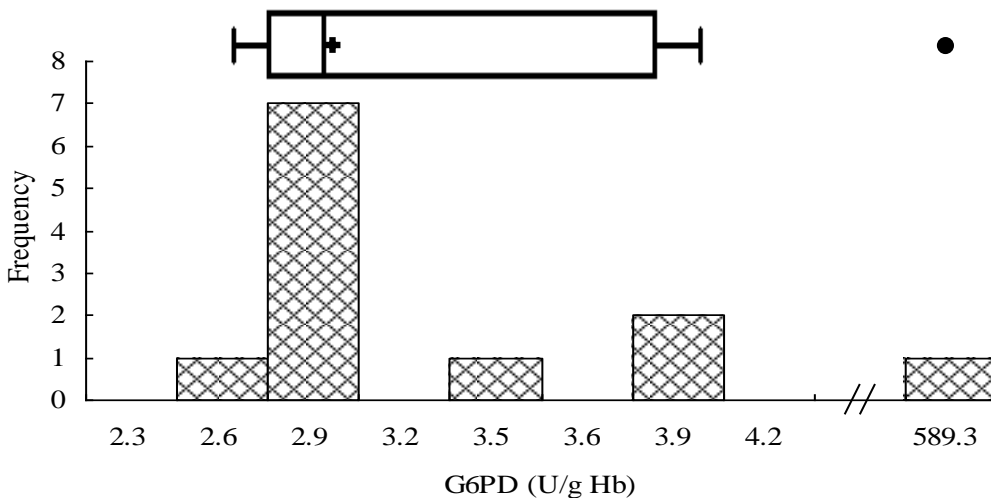
Sample 1

Median = 13.6 (n = 12)
Mean = 13.9 (n = 12)
S.D. = 1.5
Ref. Value* = 17.9



Sample 2

Median = 8.6 (n = 12)
Mean = 8.6 (n = 12)
S.D. = 1.3
Ref. Value* = 9.3



Sample 3

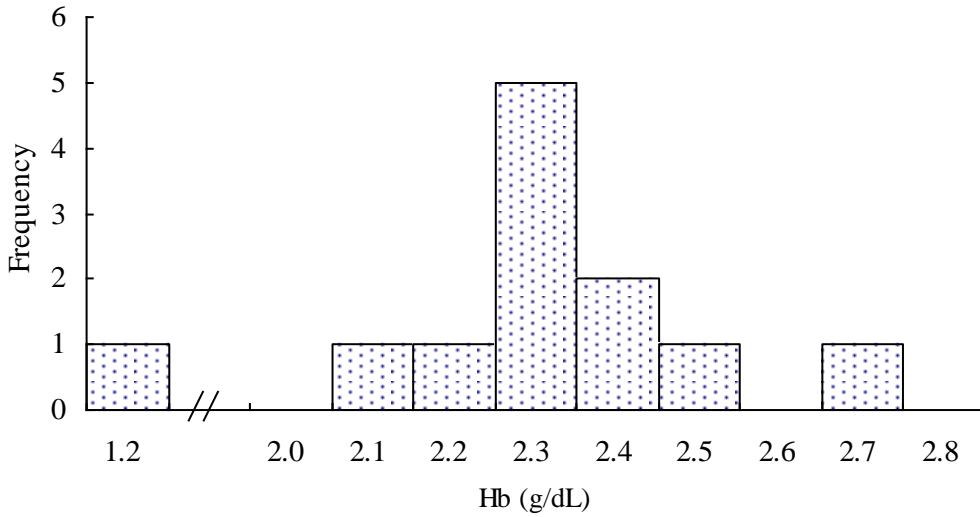
Median = 2.9 (n = 12)
Mean = 3.0 (n = 12)
S.D. = 0.5
Ref. Value* = 3.9

* 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 : RH2013-01



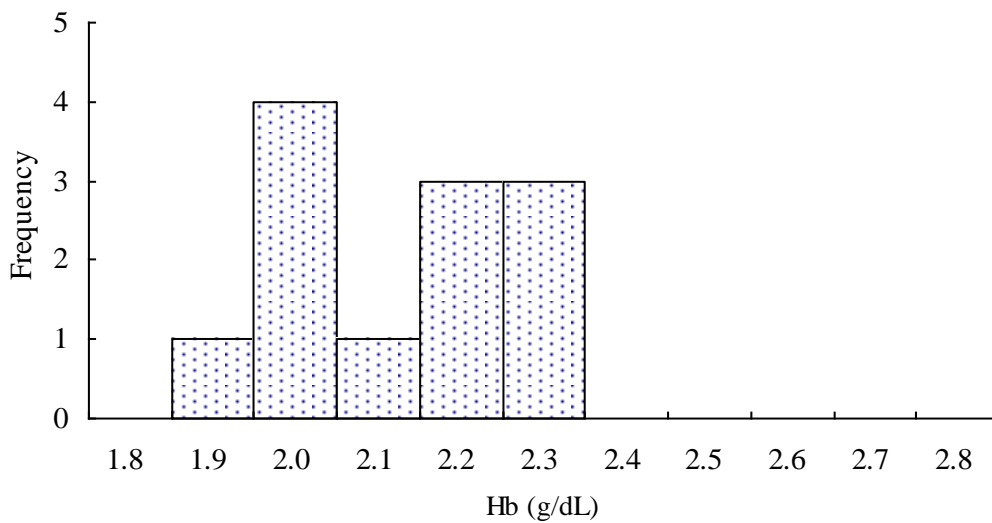
Sample 1

Median = 2.3 (n=12)

Mean = 2.3 (n=12)

S.D. = 0.4

Ref. Value = 2.3



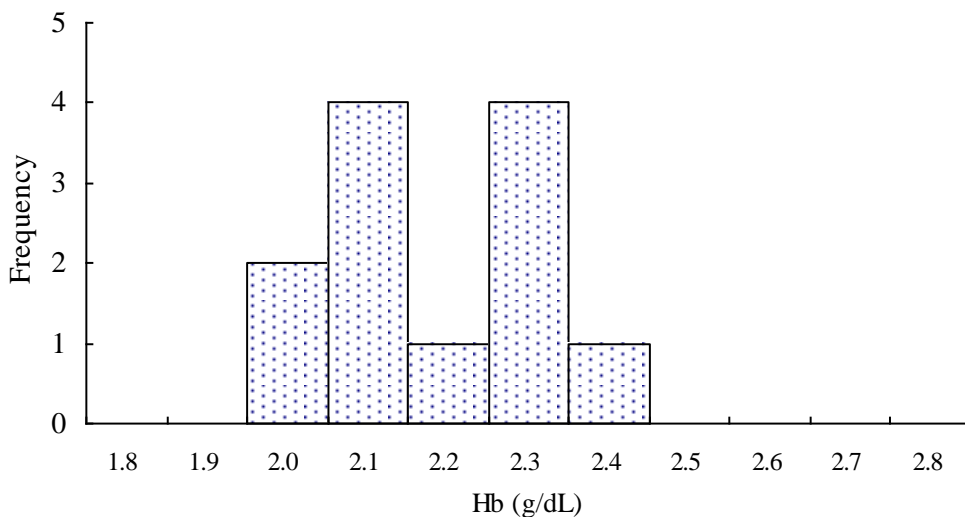
Sample 2

Median = 2.2 (n=12)

Mean = 2.1 (n=12)

S.D. = 0.1

Ref. Value = 2.3



Sample 3

Median = 2.2 (n=12)

Mean = 2.2 (n=12)

S.D. = 0.2

Ref. Value = 2.4

Fig PHIQ-4

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

Survey No. : RH2013-01 Sample sent on : 2013 / 01 / 14

Reporting deadline : 2013 / 01 / 21

This Survey [S3](#) has been used in 2009-2013 (n = 6 ; Survey / Sample No.) :

[RH2009-09/S3](#) ; [RH2010-01/S3](#) ; [RH2011-05/S1](#) ; [RH2011-07/S3](#) ; [RH2012-05/S2](#) ; [RH2013-01/S3](#) ;

Intermediate Measurement Precision of G6PD Quantitative Test

Lab	Survey : RH2013-01 / Sample 3		Program period: 2009 ~ 2013²			
	U/gHb	SDI ²	Mean	n	SD	CV
F01	2.8	-0.7	3.0	4 ⁴	0.3	10.0%
F02	3.4	0.5	3.3	5	0.2	6.1%
F03	2.7	-0.9	3.5	5	0.9	25.7%
F04	2.6	-1.0	2.9	4 ⁵	0.3	10.3%
F05	2.9	-1.0	3.2	5	0.3	9.4%
F06	3.9	1.0	3.4	4 ⁶	0.5	14.7%
F07	3.9	0.6	3.6	5	0.5	13.9%
F08	2.7	-1.5	3.3	5	0.4	12.1%
F09	589.3	1175.6	1.5	2 ^{5,7}	0.5	33.3%
F10	2.7	1.0	2.4	4 ⁸	0.3	12.5%
F11	2.8	-0.7	4.8	1	2.8	58.3%
F12	2.9	-	2.9	1	-	-
Total participating laboratories = 10						
Median	2.9	-0.7	3.3	—	0.4	12.5%
Range	2.6 ~ 589.3	-1.5 ~ 1175.6	1.5 ~ 4.8	—	0.2 ~ 2.8	6.1% ~ 58.3%

- 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. : [RH2009-09/S3](#) ; [RH2010-01/S3](#) ; [RH2011-05/S1](#) ; [RH2011-07/S3](#) ; [RH2012-05/S2](#) ;
- 4). Not participated in the [RH2009-09](#) survey.
- 5). Results not reported for the [RH2009-09](#) survey.
- 6). Results not reported for the [RH2010-01](#) survey.
- 7). The error results of [RH2010-01](#) and [RH2011-07](#) were excluded.
- 8). An error result of [RH2010-01](#) was excluded.

* Intermediate Measurement Precision : ISO 3534-2:2006

[\[Home \]](#)



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

