

External Quality Assurance (EQA) of G6PD Quantitative Test

Survey No. : RH2013-05

Sample sent on : 2013/05/07

Reporting deadline : 2013/05/14

Sample sent : [13 set](#)

Results reported (%) : 13 (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	2.2	-0.8	5.1	-1.0	11.8	-0.6	2.3	0.0	2.2	0.0	2.5	0.5
F02	F02	2	6	3.2	1.2	7.4	1.9	14.8	1.5	2.4	0.5	2.4	0.7	2.7	1.5
F03	F03	1	3	2.3	-0.6	5.3	-0.8	12.0	-0.5	2.2	-0.5	2.1	-0.3	2.4	0.0
F04	F04	2	6	3.1	1.0	7.1	1.5	14.1	1.0	2.3	0.0	2.3	0.3	2.5	0.5
F05	F05	2	3	2.8	0.4	6.6	0.9	14.2	1.1	2.2	-0.5	2.1	-0.3	2.3	-0.5
F06	F06	2	6	2.4	-0.4	6.3	0.5	14.0	0.9	2.2	-0.5	2.1	-0.3	2.4	0.0
F07	F07	1	9	4.6	4.0	5.8	-0.1	13.9	0.9	2.2	-0.5	2.0	-0.7	2.3	-0.5
F08	F08	1	5	2.9	0.6	6.4	0.6	13.6	0.6	2.3	0.0	2.0	-0.7	2.3	-0.5
F09	F09	1	7	2.2	-0.8	5.2	-0.9	11.5	-0.9	2.2	-0.5	2.2	0.0	2.4	0.0
F10	F10	1	1	2.0	-1.2	5.1	-1.0	10.9	-1.3	2.3	0.0	2.3	0.3	2.5	0.5
F11	F11	1	4	3.5	1.8	5.7	-0.3	11.5	-0.9	2.8	2.5	3.1	3.0	2.9	2.5
F12	F12	1	7	4.5	3.8	5.5	-0.5	11.2	-1.1	1.9	-2.0	1.7	-1.7	2.1	-1.5
F13	F13	1	3	2.4	-0.4	5.6	-0.4	11.3	-1.0	2.3	0.0	2.3	0.3	2.5	0.5

Total participating laboratories = 13

Median	-	1	5	2.8	5.7	12.0	2.3	2.2	2.4
Range	-	0-2	1-9	2.0-4.6	5.1-7.4	10.9-14.8	1.9-2.8	1.7-3.1	2.1-2.9
n for Mean	-	-	-	11	13	13	13	13	13
Mean	-	-	-	2.6	5.9	12.7	2.3	2.2	2.4
S.D.	-	-	-	0.5	0.8	1.4	0.2	0.3	0.2
C.V.	-	-	-	18.5%	12.9%	11.2%	8.6%	14.5%	8.1%
Reference	-	-	-	3.7	8.5	15.8	2.3	2.4	2.7

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

Long Term Observation of G6PD QA Survey for Confirmatory Hosp.

Survey No : RH2013-05 (in green ●)

- Total participants' CV result plotted against surveys

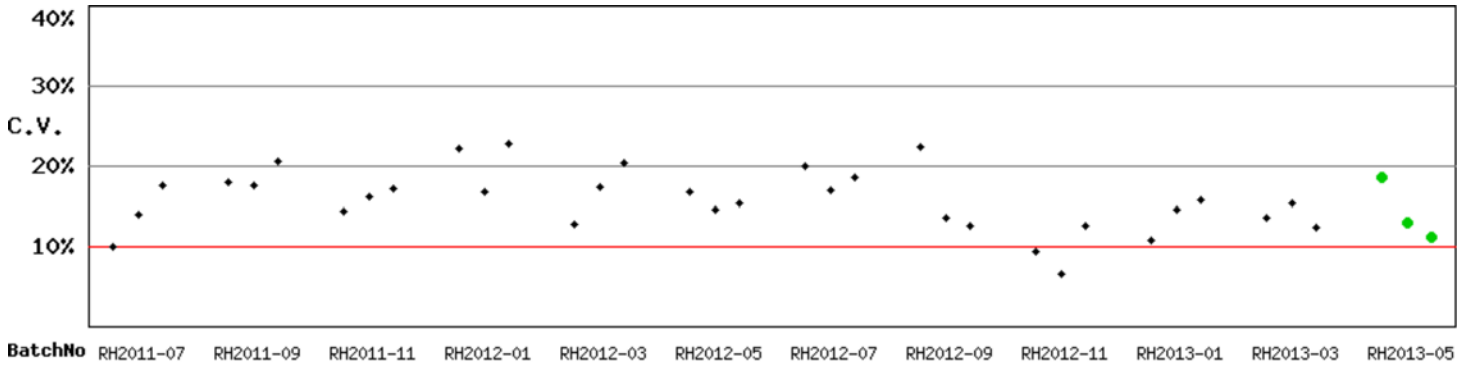


Fig RH-2.1

- Total participants' CV result plotted against G6PD activities

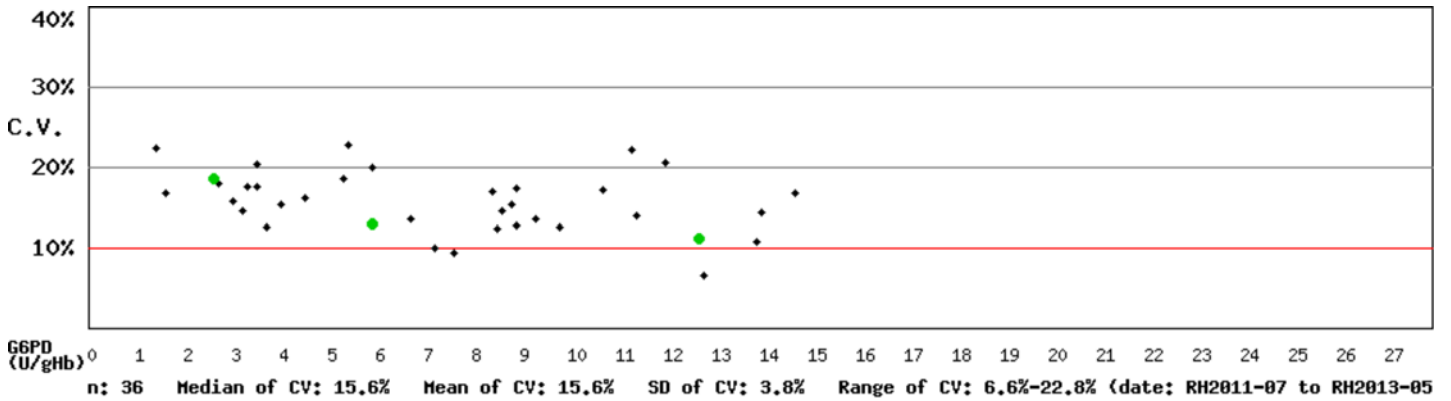


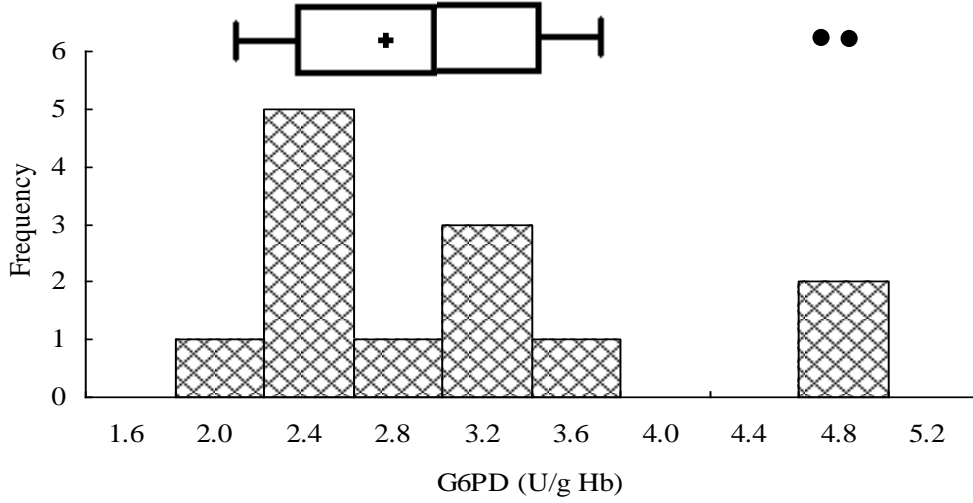
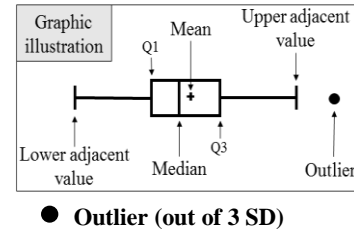
Fig RH-2.2

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>

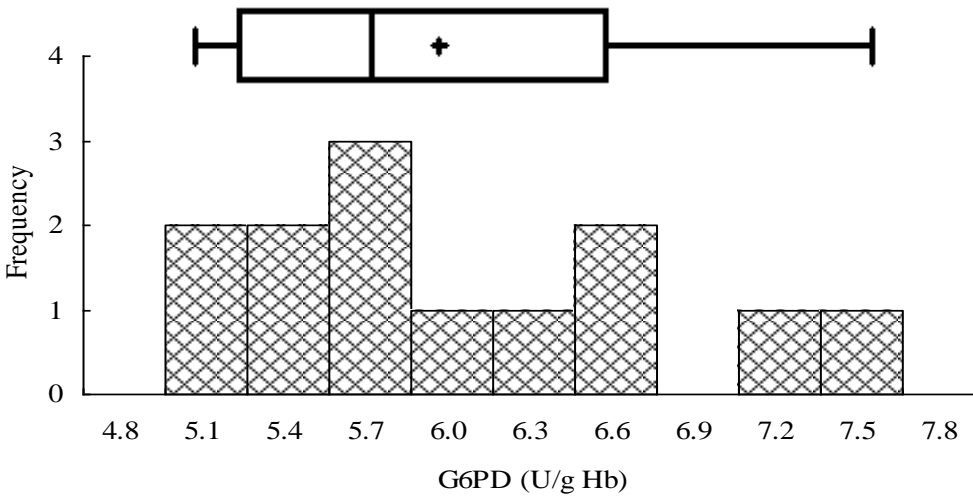
External Quality Assurance -G6PD

Survey No :RH2013-05



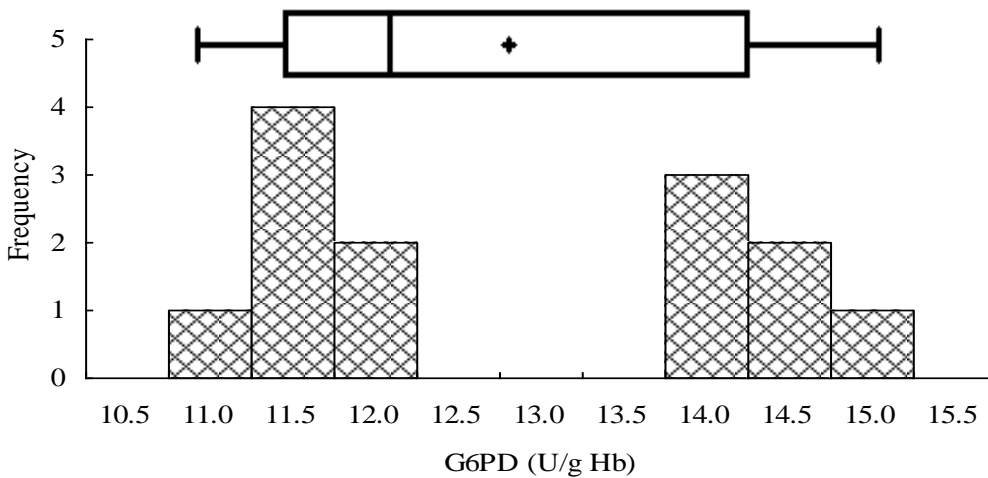
Sample 1

Median = 2.8 (n = 13)
Mean = 2.6 (n = 11)
S.D. = 0.5
Ref. Value* = 3.7



Sample 2

Median = 5.7 (n = 13)
Mean = 5.9 (n = 13)
S.D. = 0.8
Ref. Value* = 8.5



Sample 3

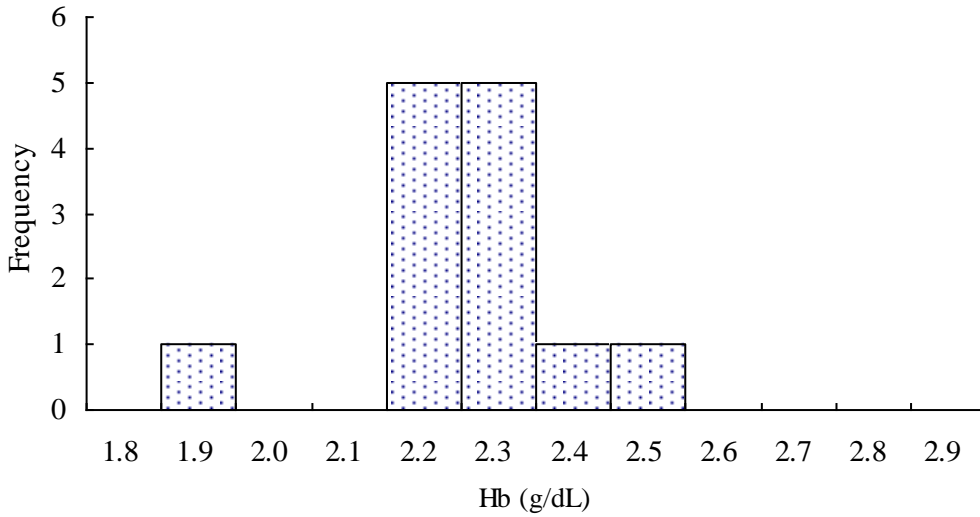
Median = 12.0 (n = 13)
Mean = 12.7 (n = 13)
S.D. = 1.4
Ref. Value* = 15.8

* 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 : RH2013-05



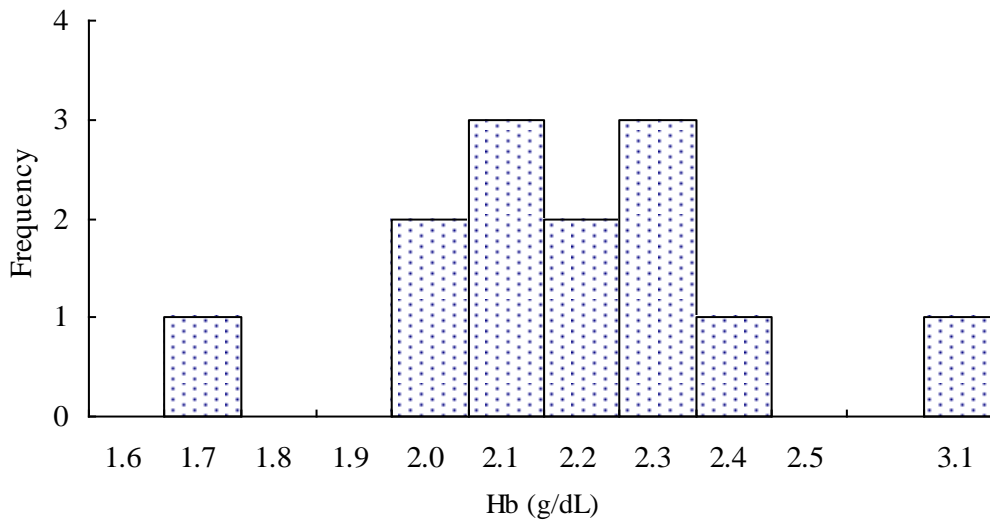
Sample 1

Median = 2.3 (n = 13)

Mean = 2.3 (n = 13)

S.D. = 0.2

Ref. Value = 2.3



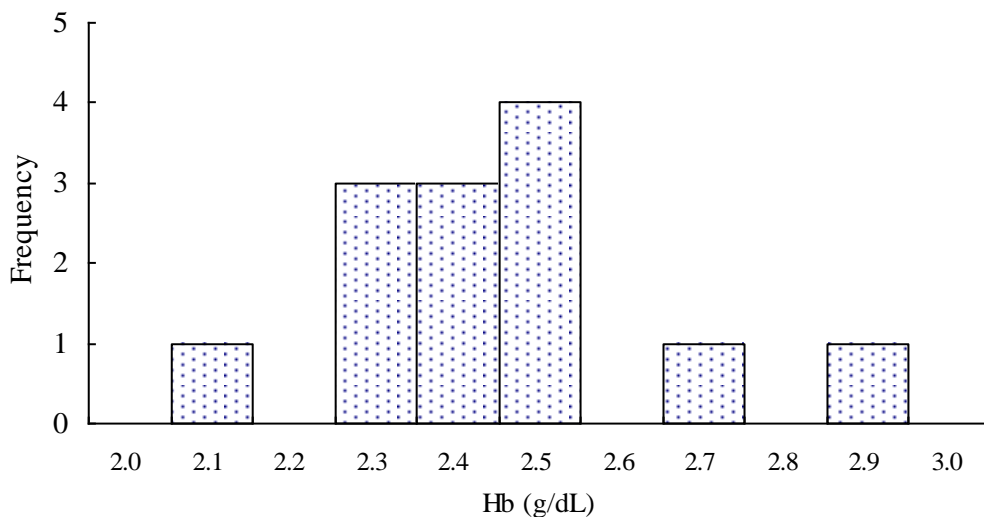
Sample 2

Median = 2.2 (n = 13)

Mean = 2.2 (n = 13)

S.D. = 0.3

Ref. Value = 2.4



Sample 3

Median = 2.4 (n = 13)

Mean = 2.4 (n = 13)

S.D. = 0.2

Ref. Value = 2.7

Fig PHIQ-4

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

Survey No. : RH2013-05 Sample sent on : 2013 / 05 / 06

Reporting deadline : 2013 / 05 / 13

This Survey [S2](#) has been used in 2009-2013 (n = 6 ; Survey / Sample No.) :
[RH2009-11/S1](#) ; [RH2010-01/S2](#) ; [RH2011-03/S1](#) ; [RH2011-07/S1](#) ; [RH2012-09/S2](#) ; [RH2013-05/S2](#) ;

Between-Run Imprecision of G6PD Quantitative Test

Lab	Survey : RH2013-05 / Sample 2		Program period: 2009 ~ 2013³			
	U/gHb	SDI ²	Mean	n	SD	CV
F01	5.1	-1.1	6.4	5⁴	1.2	18.8%
F02	7.4	0.0	7.4	6	0.5	6.8%
F03	5.3	-1.6	7.7	6*	1.5	19.5%
F04	7.1	0.1	7.0	5⁵	0.7	10.0%
F05	6.6	-1.2	7.9	6	1.1	13.9%
F06	6.3	-1.6	7.4	5⁶	0.7	9.5%
F07	5.8	-1.1	7.3	6	1.4	19.2%
F08	6.4	-0.7	7.0	6	0.9	12.9%
F09	5.2	-1.3	7.7	5^{5*}	1.9	24.7%
F10	5.1	-0.8	5.7	6	0.8	14.0%
F11	5.7	—	6.6	2	—	—
F12	5.5	—	5.8	2	—	—
F12	5.6	—	5.6	1	—	—
Total participating laboratories = 10						
Median	5.7	-1.1	7.0	—	1.0	14.0%
Range	5.1 ~ 7.4	-1.6 ~ 0.1	5.6 ~ 7.9	—	0.5 ~ 1.9	6.8% ~ 24.7%

- 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. : [RH2009-11/S1](#) ; [RH2010-01/S2](#) ; [RH2011-03/S1](#) ; [RH2011-07/S1](#) ; [RH2012-09/S2](#) ; [RH2013-05/S2](#);
 - 4). Not participated in the [RH2009-11](#) survey.
 - 5). Results not reported for the [RH2011-03](#) survey.
 - 6). Results not reported for the [RH2010-01](#) survey.
- *. An error result of [RH2011-07](#) was excluded.

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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

