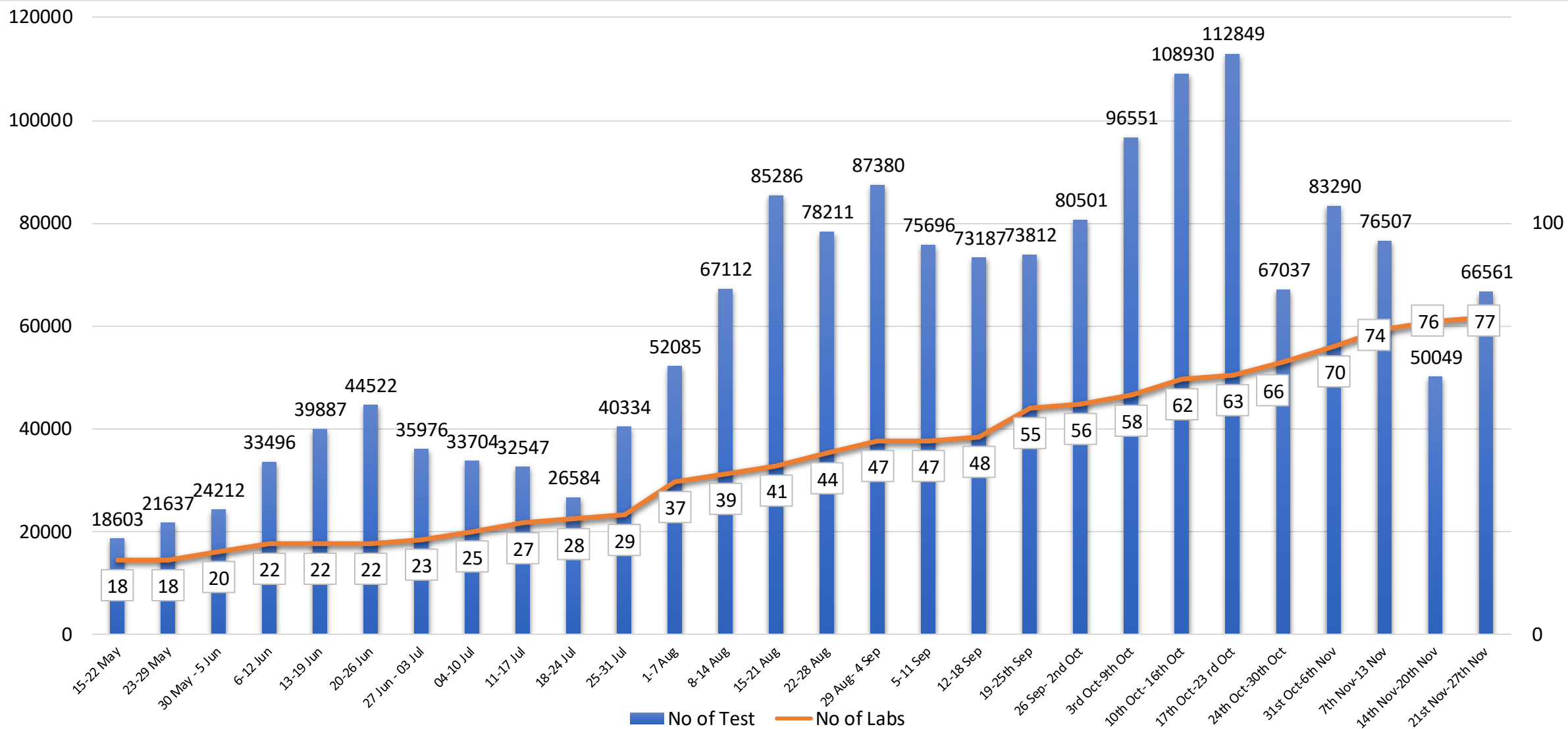


Covid-19 Response Updates from NPHL

Dr. Runa Jha
Director
NPHL



TOTAL NUMBER OF PCR TEST PERFORMED PER WEEK BY DESIGNATED COVID-19



Data source : HEOC sitREP, MoHP (Until 27th Nov 2020)

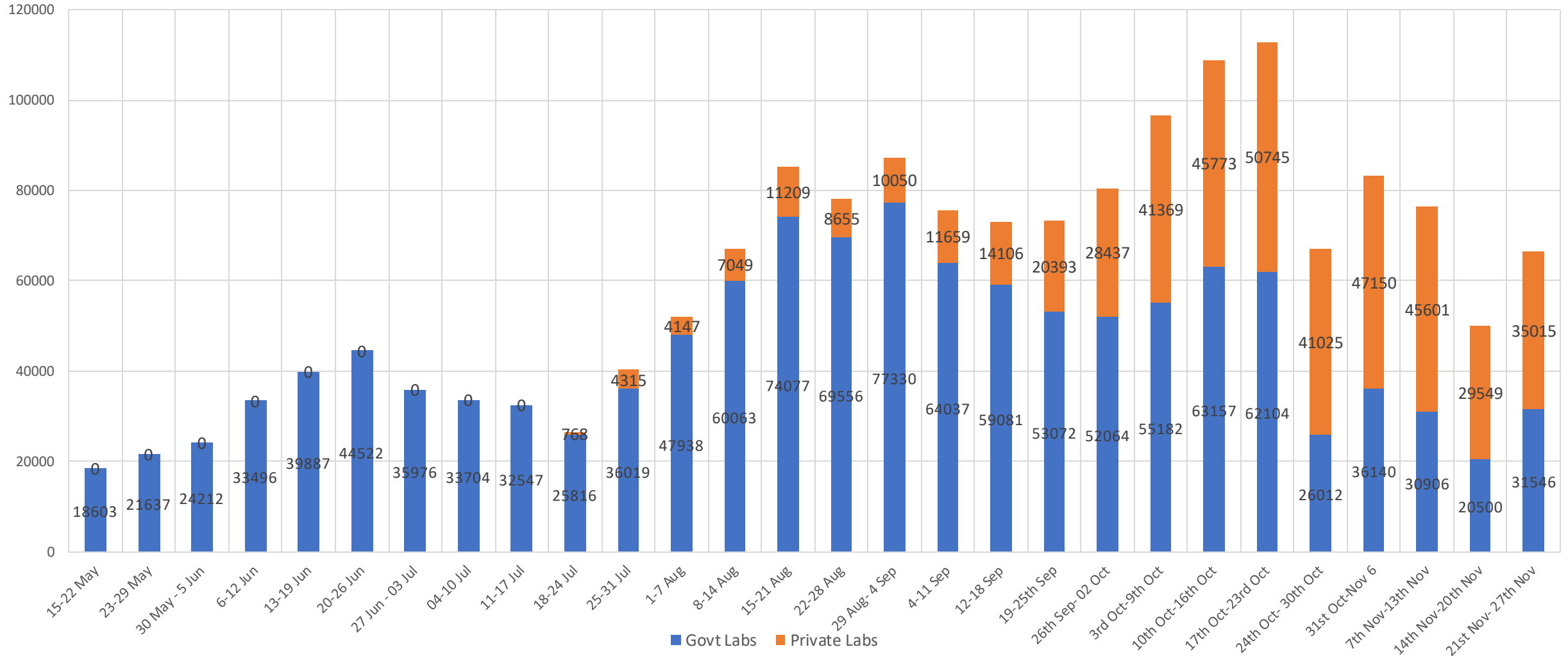
National Public Health Laboratory

Government of Nepal
Ministry of and Population
Department of Health Services
National Public Health Laboratory



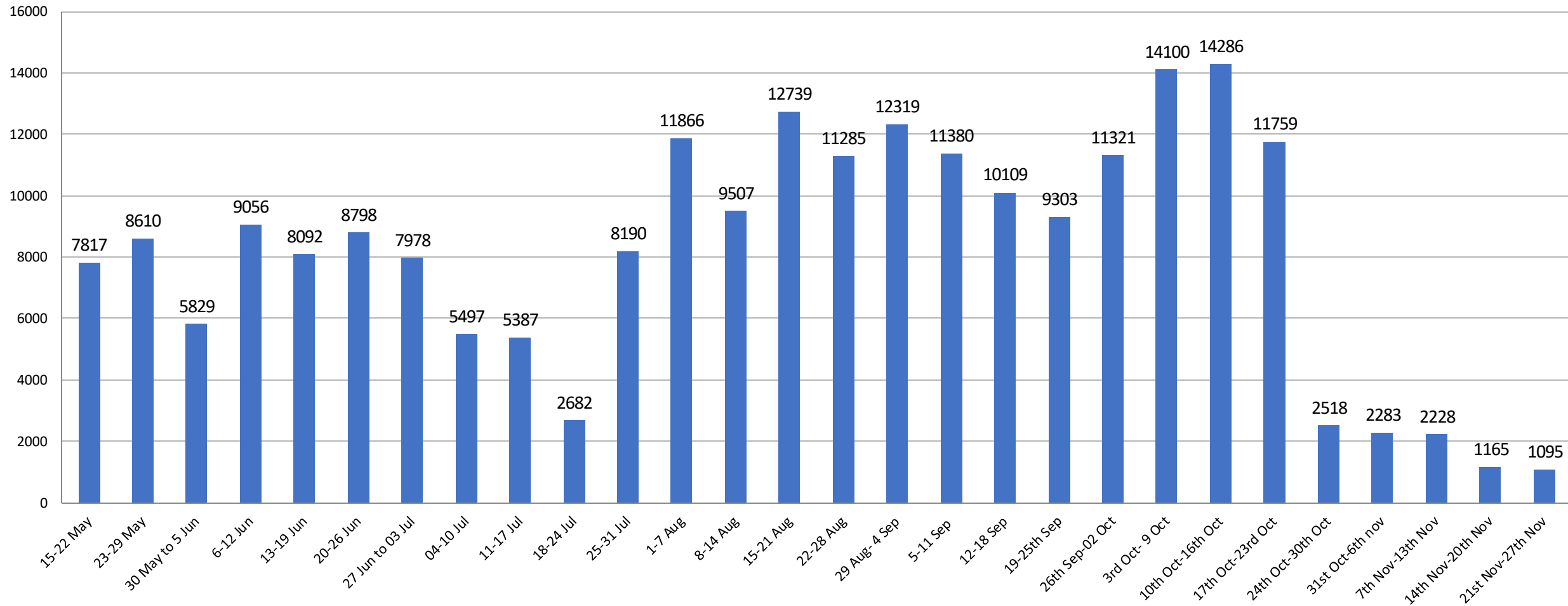
TOTAL NUMBER OF PCR TEST PERFORMED PER WEEK BY LABS (GOVT / Private)

PCR test performed by Govt and Private labs



TOTAL NUMBER OF PCR TEST PERFORMED PER WEEK BY NPHL

NPHL - Number of PCR test per week



World Health Organization
External Quality Assessment Programme
for the Detection of Influenza Viruses by RT-PCR

Panel 19 (2020) --- Individual Report (Final)

Your lab code:	275
Date panel sent: (dd/mm/yyyy)	13/08/2020
Date panel received:	31/08/2020
Date results reported:	11/09/2020
Turn-around time (days):	11 (Received after dispatch period)

Sample	Intended result	Your result	Remarks #
V01-2020	Influenza A(H7)	Influenza A(H7)	
V02-2020	Influenza A(H1) pdm09	Influenza A(H1) pdm09	
V03-2020	Influenza B	Influenza B	
V04-2020	Influenza A(H5)	Influenza A(H5)	
V05-2020	Influenza B	Influenza B	
V06-2020	Influenza A(H9)	Influenza A unsubtypeable [Influenza A positive, H9 not tested]	
V07-2020	Influenza A(H5)	Influenza A(H5)	
V08-2020	Influenza A(H3)	Influenza A(H3)	
V09-2020	Negative	Negative	
V10-2020	Influenza A(H5)	Influenza A(H5)	

OPTIONAL: Genotypic/Phenotypic Antiviral Susceptibility Testing

Sample	Results	Genotypic testing		Phenotypic testing		Remarks†
		Amino acid substitution* (Nucleotide change detected)	Associated with (highly) reduced susceptibility	Oseltamivir	Zanamivir	
A(H1) pdm09 NAB10-2020 NAB10P-2020	Intended	Mixture of wild type and H275Y (C822T)	Yes	Highly reduced inhibition	Normal inhibition	
	Submitted	-	-	-	-	
A(H3) pdm09 NAB20-2020 NAB20P-2020	Intended	NA- no mutation PA-I38T [†]	No	Normal inhibition	Normal inhibition	
	Submitted	-	-	-	-	
B (Victoria) NAB30-2020 NAB30P-2020	Intended	Wild type	No	Normal inhibition	Normal inhibition	
	Submitted	-	-	-	-	

* Residue position in N1 neuraminidase numbering. (Only results on NA gene are shown. Results on other genes are for informational purposes.)
† Sample contains PA-I38T mutation associated with reduced inhibition to Baloxavir.

• The assessment criteria for results are listed as follows. No remark will be given for correct results.

- I. Incorrect results:
 - (i) Incorrect typing results
 - (ii) Incorrect subtyping / lineage results (for seasonal Influenza A virus samples, an 'unsubtyped' HA result is considered incorrect)
- II. False positive results: Reporting 'Positive' result on negative samples
- III. False negative results: Reporting 'Negative' results on positive samples (if the corresponding typing or subtyping assays were performed)
- IV. Incorrect NA1 susceptibility testing results:
 - (i) Incorrect genotypic results
 - (ii) Incorrect phenotypic results

External Quality Assessment Programme (EQAP)

The National Influenza Centre (NIC) at NPHL has *participated and passed* the **WHO External Quality Assessment Programme (EQAP)** for the Detection of Influenza Viruses by RT-PCR proficiency test panel 19 (2020).

Hong Kong (27th Nov 2020)



Quality Assurance (Proficiency Test) Panels

- Re-testing strategy
- Distribution of Proficiency Test (PT) panels to *all the 77 designated COVID-19 laboratories* across the country *(with WHO support)*



Trainings (Weekly Virtual sessions)

‘Quality Implementation’

‘Experience sharing on laboratory aspect for COVID-19 response’

Mechi Hospital, Kankai Municipality Hospital, Rapti Academy of Health Sciences (RAHS) and Bharatpur Hospital COVID-19 Diagnostic Laboratory

*Participants from different laboratories discussed their challenges and the **WHO consultant** and **NPHL resource person** provided recommendations to address the challenges.*

One on one interaction with COVID-19 labs :

Troubleshooting the issues identified in quality assurance program with support from WHO provided technical support for resolution of quality issues.



Training (Onsite)

Training on Biosafety-Biosecurity and documentation in COVID-19 labs

- Completed training in Lumbini Province
- Ongoing Training at Province 2, Bagmati
- Public as well as private labs participated





Reagent/kit validation

- “High Top” Antigen Kit verified and approved
- iAMP (Atilla Biosystem, USA) & Vivacheck antigen kit received for verification



Hands on training at NPHL

One week refresher training to Microbiologist of Bardibas lab completed

Three week training for pathologist of Mahakali Hospital ongoing



Thank you

