

# New Territories West Cluster



## Review of Five-day Week Plan in NTWC Cluster Microbiology Laboratory for 2009

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### BACKGROUND

In line with the organization-wide five-day week plan proposed by the Hospital Authority in April 2007, the NTWC cluster Microbiology Laboratory carried out a pilot study of five-day week plan since Dec 2008. After one year of implementation, our laboratory reviews the outcome of five-day week plan and decides to institutionalize the changes into our organizational culture.

### OBJECTIVE

This poster reviews the impact and outcome on the implementation of five-day week plan in NTWC cluster Microbiology Laboratory in 2009.

- To improve the work hour arrangement by average workload distribution analysis
- Reviews the impact of Human Swine Influenza (HSI) service provision on our laboratory by workload statistical analysis
- To institutionalize the five-day week change into our organizational culture

### CLUSTER MICROBIOLOGY LABORATORY, NTWC

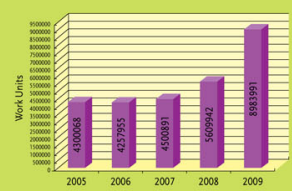
We provide comprehensive range of microbiology laboratory services and infectious diseases consultation services to hospitals including TMH, POH, CPH, and SLH with a total of 4,146 hospital beds and serving 1.03 million estimated populations around Tuwen Mun and Yuen Long districts.

- As at 31 December 2009, 219,254 specimen and overall 8,983,991 workload units (WLU) were handled
- Compared to 2008, the no. of specimen and WLU were increased 8.85% and 60.1% respectively
- The no. of specimen increased mainly on molecular biology tests
- Of 60.1% of increased WLU, the HSI molecular tests encountered for around 44.3%.
- Average workload on Monday is 13.3% more than the other working days

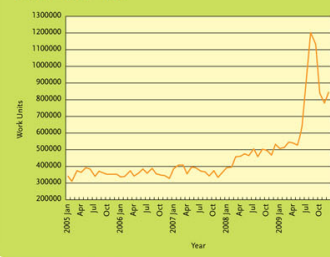
Microbiology Specimen for the Years 2005 to 2009



Total Units of Yearly Workload for Years 2005 to 2009



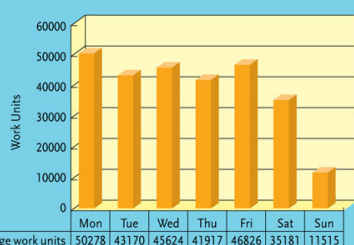
Total Units of Monthly Workload for Years 2005-2009



### FIVE-DAY WEEK IMPACT

Due to the extra compensatory leave generated from the five-day week arrangement, the available manpower per weekday was affected and the daily workload pressure on individual staff was increased. It was found that the daily workload on individual staff was increased up to around 2.1% to 4.4% varied from day-to-day. Compared to 2008, the average daily workload was increased from 124.7% to 226.5% varied from day-to-day.

Average Daily Workload in 2009



### HUMAN SWINE INFLUENZA IMPACT

HSI investigation was begun in May, starting from 77 samples in May to 3,824 samples peak service in September and with an average of 1,826 samples per month. When looking the impact of Swine Flu service provision from Jul - Dec and compared to Jan - Jun, there was significantly increase of daily workload from 18.9% to 109.1% varied from day-to-day. Due to the peak examination of Swine flu examination in September, average daily WLU were found to be the highest were 70,045, 60,120, 70,518, 66,298, 68,703, 56,887 and 32,754 from Monday to Sunday respectively.

### SOLUTIONS

- Bench procedures were streamlined by adopting more use of automated microbiology system
- Re-arranged different bench duties in order to relieve the work pressure
- Revise our leave arrangement based on workload distribution analysis
- Two additional technical staff was recruited into the service to deal with the HSI contingency service.

Assuming that 9 MTs and 18 AMTs in Microbiology Laboratory										
	Module #1			Module #2			Module #3			
Minimum head count required	MTS	AMTS	Day per year	MTS	AMTS	Day per year	MTS	AMTS	Day per year	
Weekday	7	13	249	7	13	249	7	13	249	
Saturday/Long Holiday	3	7	56	4	6	56	4	8	56	
Sunday/Public Holiday	1	1	60	1	1	60	1	1	60	
Average leave quota per day	1.9	3.1	365	2.2	2.9	365	2.2	3.4	365	
Compensation calculation										
	Working hr		Extend hr	CL (Sun/PH)	CL					
Monday to Friday	9:00	17:48	8.8	+72	-48	-528				
Saturday	9:00	17:48	8.8							
Sunday/PH	9:00	17:00	8.0							

Assuming that 2 MTs and 3.5 AMTs allowed to leave on each weekday (9MTs and 6 AMTs entitle 28 days, 1 AMT entitles 21 days, 11 AMTs entitle 18 days)						
	Module #1		Module #2		Module #3	
	MT	AMT	MT	AMT	MT	AMT
Availability	498	871.5	498	871.5	498	871.5
Annual leave required	252	387	252	387	252	387
Compensation leave required	228	452	284	396	284	508
Balance	18	-38	-38	88.5	-38	-23.5

Assuming that 2 MTs and 3 AMTs allowed to leave on each weekday						
	Module #1		Module #2		Module #3	
	MT	AMT	MT	AMT	MT	AMT
Availability	498	747	498	747	498	747
Annual leave required	252	387	252	387	252	387
Compensation leave required	228	452	284	396	284	508
Balance	18	-92	-38	-36	-38	-148

Assuming that 3 MTs and 4 AMTs allowed to leave on each weekday						
	Module #1		Module #2		Module #3	
	MT	AMT	MT	AMT	MT	AMT
Availability	747	996	747	996	747	996
Annual leave required	252	387	252	387	252	387
Compensation leave required	228	452	284	396	284	508
Balance	267	157	211	213	211	101

(Positive balance indicates that the system has adequate leave quota)  
(Negative balance indicates that the system has inadequate leave quota)

### BENEFITS OF FIVE-DAY WORK WEEK

- Extra 26 holidays gained from five-day week (10 instead of 11 days were needed for vacation leave in two consecutive weeks)
- Full day rest compensation in weekday
- Environmental friendly save petrol from going office and avoid traffic jam
- Better quality of family life
- Staff morale enhanced

### OUTCOME

The hours of work per weekday were extended, so that the contractual hours of service of individual staff remains unchanged. The leave arrangement was also revised. Basing on the workload distribution in 2009Q1 and Q2, different leaving quotas on weekdays were adopted (3 AMTs for Mon, 4 for Tue and Thu and 3/4 for Wed and Fri). From came to 2009Q3 and Q4, 3 AMTs were allowed for leave per day for handling the increased workload. In addition, 2 AMTs were newly employed at the same period. These arrangements helped to reduce the workload pressure for individual staff.

All lab staff welcomed the five-day week plan due to the extra rest days gained. From management point of view, staff enjoyed a better quality of life and enhanced morale, and the quality of laboratory service such as TAT was not affected.

### CONCLUSION

The progress on the implementation of five-day work week in our Microbiology Laboratory was successful and do not have any adverse impact on service quality and efficiency. Although there was a significant increase in daily workload in 2009 on individual staff, especially after the service provision of HSI investigation, we observed that staff morale is enhanced and worked more efficiently. We believed that the implementation of five-day week plan is successful. We shall continue to monitor the five-day week plan and communicate with our staff for further improve the quality of microbiology laboratory services.