

The Effectiveness of Medical Technologist Self-established SARS COV-II Reporting System

Hung, Chung-Chih、Lin, Yu-Yu、Nieh,Yil-Ping

Department of Laboratory Medicine, Taipei Hospital, Ministry of Health and Welfare, Taipei City, Taiwan, R.O.C

Background

The COVID-19 epidemic is severe, and people going abroad must voluntarily submit PCR test reports and other supporting documents, causing problems such as hospital manpower burden and compression of PCR capacity. Process modification through hospital information system is the method of most medical institutions, but it also takes more time to discuss with system engineers. However, if users design and write programs by themselves, it will be more direct to design the most suitable process and function.

Methods



- Medical Technologist (not Computer Engineers) using Excel VBA to coding programs for PCR.

```

'DD = InputBox("輸入月日共4碼，如 0413 ")
datenow = Now '現在時間
T1 = Format(datenow, "MMDD") '今日 現在月日取4碼
T2 = Format(datenow - 1, "MMDD") '昨日

S = 0
A = Worksheets("E-mail").Range("B65000").End(xlUp).Row

For I = 2 To A
    CLT = Right(Cells(I, "B"), 4) '採檢日取4碼
    CER = Cells(I, "A") '編號
    NAM = Cells(I, "C") '姓名
    NN = Cells(I, "H") 'E-mail
    FIL = CLT & "-" & CER & "-" & NAM

    If Cells(I, "I") = "" Then '未寄出
        If CLT = T1 And Cells(I, "G") = "急" Then '今日急件
            '設定Mail項目的相關屬性
            Set objOL = CreateObject("Outlook.Application") '定義一個outlook物件
            Set objMail = objOL.CreateItem(olMailItem) '定義一個Mail項目
            With objMail
                .To = NN
                .Subject = "衛福部臺北醫院 COVID-19報告"
                .Body = "您好：結果如附件，請參考" & vbCrLf & "有任何問題，請電洽 02-22765566#2230" & vbCrLf & "
                .attachments.Add "\\192.168.22.69\lab\S\0covid-19\過去自費報告(序號-姓名)\\" & FIL & ".pdf"
                .Display
            End With
            Set objMail = Nothing
            Set objOL = Nothing
        End If
    End If
End For

```

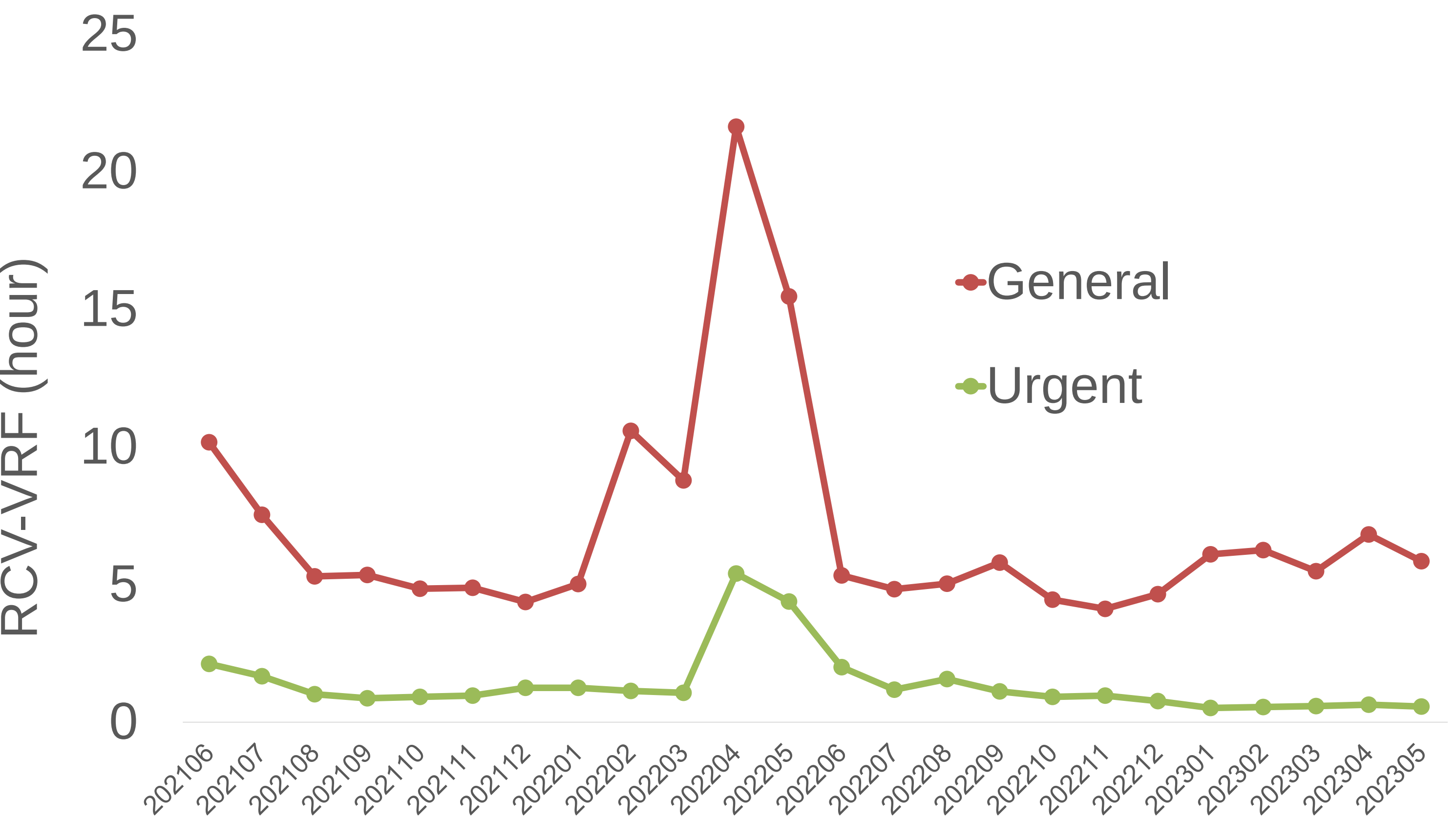


Fig 4. Turnaround Time of SARS-Cov II (95 percentile)

Table 1. Benefits of informatization

Item	Saving / Year
Making report time(Min)	131,600
Manpower salary(NT)	448,000
Error Report	2,884
Other Dept Work(Mins)	31,780
Using E-mail(Times)	20,328
Transportation Expenses (NT)	1,232,000
Travel Cost(Hours)	8,470

Conclusions

- With the popularity of information technology, writing programs is no longer a task that only information engineers can complete.
- Programs written by actual users can design programs that conform to the actual operation process, and if there are other requirements and suggestions in the follow-up, the program upgrade can be completed immediately, which not only reduces the cost of hospital programs, but also allows the actual user units to have more IT environment.

Fig 1. One-Stop Service

Fig 2. ER Barcode to Lab



Fig 3. Using VBA to Generate Reports Automatically