

Editorial: Review of the Laboratory Virology and Serology Reporting Scheme

Tim JJ Inglis, Division of Microbiology and Infectious Diseases, PathCentre, Western Australia

The Laboratory Virology and Serology Reporting Scheme (LabVISE), the national surveillance scheme for virology and serology laboratory results has just undergone a detailed review. The data included in the LabVISE appraisal covers reports on a large number of viral and other pathogens over the decade 1991 to 2000. The total dataset available on LabVISE indicators stands at over 500,000 items since its inception in 1982. During the period of the current review there were significant changes in the scope and objectives of the surveillance program. Most notable of these were the establishment of the National Notifiable Disease Surveillance Scheme (NNDSS) in 1991, a simplification of LabVISE in 1995 and transfer of responsibility for the scheme to the National Public Health Laboratory Network in 1998. This report is therefore the first formal evaluation of LabVISE data since 1996. The dataset reported under the LabVISE program was also subject to change during this period, most notably the exclusion of hepatitis B and C, herpesvirus and *Neisseria gonorrhoea*, and a reduction in the number of data fields collected. Throughout this period denominator data were not provided and there have been significant inconsistencies in the completeness of reporting. There are particular deficiencies in some jurisdictions where major reference laboratories have not contributed data regularly. The private sector laboratories have been notable in their under-representation and overall, total test numbers have not been available.

Considering the difficulties of working within these limitations, the authors of the current report are to be congratulated for completing an undertaking of this size. If the project achieves nothing else, it provides a useful insight into the national perception of what infectious diseases matter and to whom. In the absence of accurate denominator data, specific populations, procedures or pathogens all suffer from bias created by their advocates and detractors. The LabVISE system has been useful in showing seasonal and epidemic activity, for example with influenza. In 1995 surveillance of most of the diseases that were not seasonal (such as herpes simplex, hepatitis B) was

discontinued. Surveillance was continued for other diseases in order to get some national measure of seasonal/epidemic disease. However, it was recognised at this time that a better structured scheme was needed with improved representation of the Australian population and better denominator data.

It is a cruel irony with which most users of LabVISE data will be familiar that perception is often as important as accurate measurement of disease burden. For this reason, readers of the report will need to be cautious about changes in reporting that might be explained by fluctuating fashions in infectious disease practice, or the epidemiological self-fulfilling prophecies on which many pseudo-outbreaks are founded. In summary, the well-recognised limitations of the current LabVISE dataset render it difficult to use as a field epidemiology resource.

Undoubtedly the most practically useful material in this report is its demonstration of the nationwide presence of a range of non-notifiable pathogens. The NNDSS may have taken the lead role in collating data on notifiable pathogens, but even on-line, laboratory-based notification has not overcome the problem of reliable denominator data or addressed the problem of slow turnaround of analysed data to local public health jurisdictions. LabVISE is therefore a useful reality check on NNDSS data, as is clear from measles virus results over the review period in which correlation between the two surveillance schemes is good despite higher notification rates to NNDSS. LabVISE has been one of the few sources of national data on laboratory-confirmed influenza. Isolates are analysed by the WHO Collaborating Centre for Research on Influenza to determine the virus strains for the annual review of vaccine composition. The persistent presence of other vaccine preventable viral infections in the Australian population is documented in the current review of LabVISE data and provides a valuable perspective on the efficacy of vaccination that supplements more targeted seroepidemiological studies. The presence of a range of respiratory, neurotrophic, enteric and other pathogens in the

LabVISE dataset is a timely reminder of the limited range of agents against which an effective vaccine exists.

It is a pity, then, that data on other bacterial pathogens such as *Leptospira* spp. are not presented in this review. Some of the criticisms levelled at LabVISE might have been more easily dispelled if the surveillance program had more input from bacteriologists. This is perhaps an appropriate point at which to admit to having taken the LabVISE program for granted at an important stage in its development. If this is a case of use-it-or-lose-it, then the nation's microbiologists really need to take LabVISE under their wing and advocate a more pro-active reporting process along the lines used in some European jurisdictions where all validated data is transmitted on-line. In return, I look forward to a more rapid completion of the epidemiological loop in which the information providers (the laboratories) are provided with equally rapid feedback of aggregate data. Presentation of laboratory data in a geographical context with time and space cluster analysis has become an urgent priority, particularly in view of events on 11 September last year and following. A preview of what a simple geographical representation of disease events might look like can be found on the EIDIOR website (<http://www.e-tiology.com/>).

It has become fashionable in some circles to criticise surveillance of infectious diseases as data collection for its own sake. The falling frequency of *Communicable Diseases Intelligence (CDI)* publication has reduced the immediacy of LabVISE aggregate data reports. Fortnightly posting of NNDSS data on an open-access website goes some way to compensating for the loss of periodic overview via the *CDI* route. Both reporting schemes act as a form of advocacy for continuing laboratory work on diseases for which there is no suitable chemotherapy and no available vaccine. Expert bodies such as the National Health and Medical Research Council do well to take note of these gaps in national defences against public health threats. It is one more reflection of the great Australian tyranny of distance that much of the number crunching is far removed from the public health

front line. While we can argue exactly what constitutes that front line, it is clear that accurate, timely information is one of most useful weapons.

Is it not time that the various stakeholders established some common ground on the ownership of aggregated surveillance data and concentrated their efforts on finding more imaginative ways of launching their results into the public domain? There is an opportunity through ProMED or the various regional surveillance networks to take a regional lead in infectious disease surveillance. However, ProMED posts surprisingly little data from Australia given the wealth of data returned from laboratories to data-collecting centres. Indeed, regional surveillance networks such as the small Indian Ocean Rim network (EIDIOR) provide ready-made opportunities to openly share surveillance data in a region-wide capacity building exercise.

The authors of the present report on LabVISE are to be commended for their energy and enthusiasm. It would be a great shame if this valuable public health resource were not developed further.

Contact details: Dr TJJ Inglis, Division of Microbiology and Infectious Diseases, PathCentre, Locked Bag 2009, Nedlands, WA, 6909.

Telephone: +61 8 9346 3461.

Facsimile: +61 8 9381 7139.

E-mail: tim.inglis@health.wa.gov.au.

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