

Asking the ‘silly questions’ in a ‘user pays’ environment

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EXTENDED ABSTRACT

The potential rewards of applying GIS technology to improve, promote and protect public health are enormous. However current access to health information is severely limited, thus hindering the potential development of GIS systems in the health sector. This barrier to accessing health information is the misguided adoption of a market style ‘user pays’ policy and is the result of political imperatives of the 90s. This acts as both a financial barrier and as well as a barrier to the investigation process. The NZHIS ‘user pays’ policy is indicative of a fundamental misunderstanding of the data investigation process (asking the ‘silly questions’). It is recommended that the NZHIS revise their policies to allow free and direct access to health data for authorised users to facilitate the improvement, promotion and protection of public health.

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Public health surveillance requires health information that is comprehensive, accurate, relevant, timely and accessible. If any one or more of these five key elements are absent, the potential of such surveillance is critically undermined. These requirements are commonsense and should require no further comment. However at present one significant barrier to more effective health monitoring and surveillance is the current New Zealand Health Information Service (NZHIS) policy of charging for access to health data. This policy dates back to the political imperatives of the 1990s. An irony of the current set-up is that it is often those organisation that have provided the data in the first place that are subsequently being charged for access to it. The policy of charging health organisations such as Public Health Units for access to health data effectively blocks health surveillance in two ways. The primary barrier is that in the real world of balancing budgets, amidst a background of scarce health resources and insatiable and escalating demands on health services, funds for such surveillance are inevitably meagre or non-existent. The second barrier such a system imposes is that of delay and distance. Leaving aside the bureaucracy one can have to face internally to effect a purchase, the delay disrupts the spirit of inquiry and perpetually leaves those investigating an issue one step removed from the data and from getting to grips with it. Although concerns exist in relation to the accuracy of the data collected, particularly in relation to the ‘ethnicity’ categorisation (Hoskins, 1994), the main focus of this argument is on financial barriers.

The sum charged by the NZHIS is not exorbitant (the NZHIS charge Official Information Act rates- roughly NZ\$50 per hour). However the requirement to order and pay indicates a fundamental misunderstanding of health investigation, surveillance and monitoring. The reason for this is that to truly investigate an issue, it is essential to explore it in-depth. This often means interrogating numerous data sets en-route to a conclusion. In effect this means ‘playing’ with the data. This term may sound irreverent, particularly when one considers the nature of the data involved, but it is a process of experimentation and learning. It is the opportunity to ask ‘silly questions’ and examine the results (Duncan, 2000). It is an interactive process. It is not a question of simply requesting a set of information like walking into Macdonald’s and ordering a big mac, large fries and a diet coke. Mistakes, re-routes, dead ends and emerging new avenues of inquiry are all part of this process. How can this type of process occur in an environment where one is charged every time one attempts to investigate a hunch? This is particularly important in an era when the overriding doctrine in health care appears to be balancing budgets. Asking

'silly questions' is about investigating the 'What if ?' scenario. The importance of this endeavour should not be underestimated. Asking the 'silly questions' has proven itself through history, and has been raised as an issue at the recent Cervical Screening Inquiry in Gisborne. Working in the health field, the importance of the discovery of penicillin should adequately demonstrate this. To penalise such investigations is to curtail the potential of population health surveillance. This type of analyses is far more than number crunching, it is an endeavour that is in its own way creative and artistic. One should remember that public health is about both '*the science and art of preventing disease, prolonging life and promoting health*' (Acheson, 1988).

The importance of this barrier to the development of effective Geographical Information Systems (GIS) in the health field in New Zealand should not be underestimated. Healthcare providers can of course concentrate on the data they themselves collect in order to monitor and map health status. However this leaves researchers wondering about the patterns throughout the country, and unable to make wider comparisons. It also inevitably excludes a proportion of people who seek treatment in neighbouring areas, from alternative health service providers, or in distant metropolitan centres where specialist treatment services are often located. Thus local bodies engaged in health surveillance using their own data are attempting to monitor the health of the public within a region using databases that are incomplete. This is an issue of particular concern in areas with relatively small populations, such as the Gisborne region which has a population of only approximately 45,000.

The potential added value of Geographical Information Systems in the health services has been well documented (Wilson et al., 1996). Richly illustrated examples of excellent models demonstrating the application of GIS technology to health issues can be seen in countless textbooks, journal articles and on numerous web pages (Birkin et al, 1996). However despite such flagship ventures, including some from New Zealand, the reality remains that GIS in health is still in its infancy in New Zealand. New Zealand is lagging behind its colleagues in the developed world in implementing GIS in health settings. This is not just an issue of pique or pride, but one that potentially leaves its population at unnecessary risk. It must also now be acknowledged that GIS packages are no longer a particularly new technology. Although there are numerous explanations for the slow adoption of such technologies, at this stage many of these are wearing thin. Both hardware and software costs have reduced dramatically. Modern PCs have far more capacity than earlier mainframe computers. As well as this, the windows based interface now incorporated on GIS packages such as ArcView and MapInfo mean that they are now no more difficult to use than some packages routinely included in software bundles such as Microsoft's *Office Suite*. Now is the time to concentrate on removing the final barriers to the widespread use of GIS packages in the health sector in New Zealand.

Public Health Units in New Zealand have been provided with GIS training, digitised maps, copies of ArcView, and EpiSurv, a Deprivation index for the whole country (NZDep96) and a geocoding engine. The scene is therefore set for what could be a dramatic take-off in GIS in the health sector in New Zealand. However the final hurdle is access to comprehensive health information. The NZHIS need to radically re-evaluate their 'user pays' philosophy. They need to focus on achieving the most benefit from the health information they collect. This means free and open access to their stock of health data for authorised users. Such information should be accessible via the web, or on routinely updated CDs. As discussed above the investigative process requires speedy access to data. The delay in applying for data and waiting for it to be sent from NZHIS unnecessarily disrupts the investigative process.

Public Health surveillance using a GIS will never achieve its potential in New Zealand while the spirit of inquiry, that is the ability to ask the 'silly questions', continues to be penalised by the inappropriate implementation of a market style philosophy governing access to health data. At present although health information may be on the most part accurate, timely and relevant, it remains relatively inaccessible. Free and direct access to health data for authorised users needs to be rapidly introduced by NZHIS to help improve, promote and protect public health.

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