

How will we cope?

– WHEN the pandemic comes

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ABSTRACT

Public Health advice based on disease trends overseas and international literature suggest that it is appropriate to refer to the next pandemic as 'when' not 'if'. What is less clear is what the next pandemic will be: avian flu, SARS again, or another emergent virulent influenza-like illness or gastrointestinal infection? In August 2004, the Department of Primary Health Care and General Practice at the Wellington School of Medicine conducted a qualitative study for Regional Public Health about pandemic readiness. Focus groups of general practitioners and practice nurses representative of the diversity of the primary care workforce and workload in the greater Wellington area were consulted. The focus of enquiry was on the role of primary care in providing community assessment centres for triage of infected patients. The results revealed lack of confidence in the ability of the primary care sector to work effectively under pandemic conditions, citing as problems the practical and

conceptual barriers, staffing issues and supplies. Primary care providers are most often the clinical implementation arms of any public health initiative, as in this case. This consultation has resulted in regional Public Health teams, and through them the Ministry of Health, being better informed about implementing community-based triage during pandemics including policy implications. This project has particularly highlighted the importance for consultation with the primary care sector early in development of a public health plan, to identify the important issues with the clinical services required to implement the plan at the personal health level, namely primary care.

Key words

Pandemic planning and preparedness, avian influenza, public health policy consultation

(NZJP 2006; 33:25–29)

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Introduction

Overseas and international literature suggest that it is appropriate to refer to the next pandemic as 'when' not 'if'. The Ministry of Health has a National Health Emergency Plan: infectious disease.¹ This confirms the central role of community-based assessment in pandemic management and calls for District Health Boards to consider community-based assessment centres (CBACs) as part of their pandemic planning. CBACs would be a facility for initial assessment and basic outpatient services, not an additional inpatient treatment site. CBAC facilities would assess patients with suggestive symptoms, and determine the best course of treatment for them: sent to a hospital or other site for treatment; or provided with medica-

tion and self-care advice; or referral to a community-based support service and sent home. Health authorities in North America,^{2,3} Canada^{4,5} and Australia⁶ have recognised the potential utility of CBAC-type facilities in the event of pandemic illness. National plans for influenza pandemic protection prior to the Sudden Acute Respiratory Syndrome (SARS) 2004 pandemic^{7,8} have since been modified based upon experience from the SARS epidemic.^{9,10,11,12,13} The Ministry of Health in New Zealand has also updated its previous advisories.^{14,15} The next pandemic organism might well behave differently to SARS in its mode of spread, identifiable risk factors as well as its virulence and pathogenicity. It might be avian flu, SARS again with different virulence,

or some other emergent respiratory or gastrointestinal illness. Pandemics are often influenza-like, but in planning for public health measures and community protection it is helpful to remember and learn from outbreaks of infections that spread in other ways such as hepatitis A and norovirus.

Projections of pandemic influenza in the greater Wellington area indicate the likelihood of very significant numbers of excess consultations and hospitalisations.¹⁶ Planning is therefore needed to provide additional resources. Of all the national pandemic plans, only Canada's national Influenza Pandemic Plan has included a detailed description of CBAC establishment.⁴ The CBAC proposal in particular depends upon primary care services for successful implementing of the public health plan for emergency triage

in pandemics. Not much has been written about the primary care aspects of SARS.¹⁷ Would CBACs work here in NZ, and what would it take to make the idea viable?

The New Zealand Ministry of Health contracted Wellington Regional Public Health from the MOH Health Emergency Planning budget to investigate the feasibility of using CBACs for rapid assessment and triage of people affected by a pandemic illness such as avian flu or SARS. The Department of General Practice at the Wellington School of Medicine has worked with Regional Public Health to explore primary care opinion about the best approach to managing respiratory infections with pandemic potential in primary care, the feasibility and functioning of GP triage and the CBAC proposal for pandemic readiness.

Method

Focus groups were organised with primary care practitioners (doctors and nurses) selected to represent the diversity of the primary care workforce and workload in the greater Wellington area, and the different types of practices in urban and rural localities. Groups were held with general practitioners and with primary care nurse representatives from urban, rural and provincial areas: one group involved doctors working at an after hours practice; one from a primary health organisation with predominately low income clients, one group of practice nurses and one group of general practitioners from a rural area. Two general practitioners from a provincial medical centre were interviewed independently: one a doctor associated with a marae-based Maori health service, and one a GP employed part-time in the Emergency Department of a local hospital. Focus groups and interviews followed a semi-structured interview schedule. Information was sought on experience from the earlier SARS outbreak: what went well and badly and what could have been improved; as well as current process for managing an infectious disease in the practices; perspectives preparation for another possible pandemic; thoughts about a proposal for community assessment centres and the implications of such proposal: what it would take for CBACs to work here.

Meetings were conducted at locations convenient to participants and taped and transcribed with participant consent. Thematic analysis was undertaken of the information from participants. Ethical approval was obtained through the University of Otago (Category B process).

Results

The focus group participants voiced a number of key concerns relating to infectious disease management in primary care in general and, closely related, barriers to the use of GP surgeries as triage points in a pandemic situ-

Table 1. Barriers to GP triage role in a pandemic

'We have plastic splashguards but these are not used often. Real gowns are never seen at the frontline. People still take bloods without gloves here. Universal precautions are not followed.' [Provincial GP]

'Often with spotty children the surgery staff say "just come in". Receptionists are not trained for looking for patient signs or doing triage.' [Nurses]

'...soft toys get sucked by sick children in the waiting room.' [City GP]

'Need to protect other patients from infection and can't see how they can do this currently.' [Nurses]

'Everyone knows where the hospital is, and that they presumably have a protocol for dealing with things like this, with separate rooms...' [City GP]

'ED is the best local triage centre. ED nurses are better trained than practice nurses. Rooms are more ideal, (staff are) more used to masks and gowns. In the community masks and gowns seems like overkill.' [Provincial GP]

Table 2. Personal and staff safety

'Not sure who would wish to put their lives on the line to work in a CBAC. (It's) not just a question of money.'

'None of the GPs would want to work in the...triage unit, if there was one.'

'No one wants to put themselves at risk, since in SARS it was the staff who died (overseas), but all would help if confident they were doing things correctly.'

(NB: these quotes have been reproduced without attribution deliberately, to preserve anonymity).

ation and in particular issues about the CBAC concepts (Table 1). Opinions and views expressed were based on participants' experiences in the SARS epidemic. Many of the issues identified by focus groups are relevant to preparedness for any civil emergency. In particular, that they hold limited supplies and lack functional relationships with important emergency organisations such as Civil Defence.

The physical limitations of existing general practice facilities in managing a pandemic were raised as a concern by a number of participants. Most surgeries were not designed with pandemics in mind: they do not have space for an isolation room; limited ability to separate potentially infectious patients from others; lack of separate ventilation and no process to handle large quantities of infectious disposables. Participants noted that triage in a practice would put other patients, as well as staff, at risk of infection. Access to and appropriate use of personal protective equipment was highlighted as an infection control issue with regard to personal safety. Stockpiling would reportedly be a problem for most practices owing to the limitations to storage and shelf life of sterilised goods and cost of maintaining a supply. During SARS, masks were in short supply and reports from the groups indicate that masks were re-used. Infection control and physical limitations of current practice sites would be major issues in primary care settings, in a pandemic event.

Staffing was identified as a key aspect to pandemic preparedness. Personal risks to staff were commonly raised (Table 2). Since chronic illness management and other (non-pandemic illness) workload would continue, staffing could rapidly become a limiting factor. Other factors in pandemic preparedness relate to training in protocols for infection control (Table 3), and to establishing and in maintaining lines of communication with patients and key agencies in the event of an outbreak. Some informants supported the idea of temporary assess-

Table 3. Staff training issues

'Staff need to be suitable – not working with children and elderly and not immuno-suppressed.' [Nurses, a discussion followed about protecting pregnant staff]

'Doctors working in the field need to be confident of infectious disease control measures and sterilisations.' [ED GP]

'Cannot underestimate the fear factor – can strike anyone, no treatment, and don't know what to do.' [City GP]

'There is so much CME – if it came up (as a topic) people would say "oh God not more" and "it is something being used on a day to day basis?" and if not wouldn't attend.' [Rural GP]

Table 4. Community training issues

'Some patients don't know what infectious means.' [City GP]

'There are all kinds of myths out there – e.g. three second rule for picking up an infection.' [Access PHO GP]

'People don't always read what's written on the door – they walk right past it.' [City GP]

'Easy clear-cut guidelines, an 0800 number, and clear media info and website.' [Nurse]

Table 5. Alternative methods for triage

'Don't really want patients coming out...they should stay at home. People wanting routine things like medical certificates should not come in – could arrange to fax these to their work.' [City GP]

'[You] could put a message on the answer phone – but patients would come in anyway if they couldn't get through.' [GP]

'Need a widely publicised hotline, with interpreters. The (telephone triage service) provides a facility to field symptom clusters.' [Nurse]

'A website – many people are computer literate now, all ages.' [Rural GP]

ment centres, away from usual points of care, as a way of managing the problems described above. Other commentators suggested that a trained and dedicated workforce should be retained on standby (Table 3) for call when required for pandemic triage, backed by a system of specialised training and support, in preference to taking primary care staff from their usual workplaces. However, since standby staff would have regular jobs in the interim they may be unable to respond instantly regardless of any retainer paid to be prepared.

In the recent SARS outbreak, Public Health guidelines were received

by all but interpreted and implemented differently. Necessary equipment was not to hand promptly enough for practices dealing with potential cases in travellers. For others the scarcity of equipment and expense meant that misguided attempts were made to re-use these. There was general confusion about the cleaning process and how to ensure sterility of stethoscopes, carpets and surgery fittings. In some cases the Public Health guidelines could not be carried out, such as impossibility of separation of potentially infected patients awaiting completion of triage due to physical restrictions

of premises. In some instances potential cases were given instructions but chose to override them. In other instances the services themselves overrode or deliberately ignored instructions. Comments made by focus group participants indicated that patients, as well as staff, require education as to the appropriate action to take either for personal protection or for health assessment in a pandemic (Table 4).

Although participants identified a number of potential barriers to the CBAC approach, they could suggest relatively few alternatives (Table 5). As already noted above, these included hospital-based services, namely emergency departments, to which affected patients could be directed. Another suggestion centred on the idea of a virtual triage centre, based on the principle of self-assessment: telephone and Internet-based with practical advice, such as staying away from the GP and staying isolated from others. Such services would need to be widely publicised and ready availability of translation services would be required for patients with English as a second language. Participants made it clear that no matter what information they were given, some people would still seek a personal consultation at their own GP surgery.

Discussion

The SARS epidemic raised awareness and brought other changes within primary care services: practices have developed in-house protocols; masks and other equipment have been stored in readiness for 'next time'. The issue of staffing is a difficult one. As participants noted, some staff would be reluctant to work in a triage environment due to perceived risks to themselves and their families. These risks would be present for all staff working in primary care during a pandemic event, therefore infection control training and routine practice of infection control methods in primary care is therefore of critical importance.

During the SARS outbreak, basic infection control methods were the key to containment. In an influenza or other pandemic, these methods will be key to protection of staff health be it in a CBAC or any other health care setting. Giving practitioners confidence in the practice and efficacy of standard precautions is therefore a major issue. Participants called for general up-skilling in infection control methods in primary care, which would improve day-to-day care as well as preparedness for an extraordinary infectious disease event. Since this research was done, education material has been developed specifically for use in primary care and in other community-based settings arising from initiatives from the Ministry of Health, various DHBs and Colleges.

A number of the limitations identified by this project would be difficult for CBAC planners to fully surmount: GP premises are not designed for a pandemic scenario; translators may be difficult to source; transport may not be available to all who need to get to a CBAC; patients may not be able to see their usual GP, or would be unwilling to attend a CBAC for fear of contracting the illness there. As the focus group participants noted, there is no one ideal solution.

The focus groups have provided valuable feedback on a number of critical points: notably the need for extensive and ongoing consultation with the primary care sector on any proposed CBAC-type approach to ensure their concerns are met where possible, and that the sector is well prepared and well supported to respond. The focus groups identified the fact that many issues, such as infection control training, while not strictly part of CBAC planning, are essential to primary care practitioners as support mechanisms in a pandemic event.

Of note, this research indicated that there is an air of pessimism in

primary care over their ability to cope with a real pandemic, as opposed to a threatened one – as SARS was perceived to be in New Zealand in 2003.

It seems inevitable that primary care practices will encounter worried patients before they receive, or can digest, instructions from Regional Public Health. SARS was a respiratory spread infection and potential patients had an identifiable risk factor, namely recent travel to pandemic regions. Any other pandemic may present differently or have a less well-defined or identifiable risk factor.

In addition, it is not immediately clear, in the early stages of any new disease, if and how affected patients will be recognised, how the illness will progress, or if and how it will need to be treated.

Some positive aspects of preparedness have arisen from the SARS pandemic, as mentioned earlier. However, there remains uncertainty on which staff will respond next time, what the implications are for those staff, how stored resources will be used, and how the primary services will interact with members of their community and with other emergency services under pandemic conditions. In particular, the extent of triage and management expectations on primary care and the role of hospital services are difficult to predetermine without details of the nature of the next pandemic. There are very real concerns about the potential for rapid overload of all health services in the event of a true pandemic. Primary care providers who are accustomed to dealing with patients with TB, meningitis, hepatitis B, norovirus are aware of the drain on professional resources associated even with well-understood diseases and readily-contained outbreaks.

This research was undertaken in 2004, at a time when primary care providers were still reflecting on their experiences and concerns during the threat of SARS. Since this time

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there has been a large amount of work at a national, DHB and primary care level in enhancing plans for preparedness for a possible influenza pandemic. The issues raised by primary care during these focus groups may have therefore have altered during intervening time. On the other hand it may be reasonable to assume that the fundamental concerns remain. These concerns relate to personal and staff safety, confidence in infection control techniques, physical limitations of primary care practices around infection control, and communication between primary care and other sectors in a pandemic.

Conclusion

The preparedness of New Zealand for the pandemic is a concern of pressing importance.¹⁸ The overall impression from this consultation with the primary care sector is that this sector is still not well prepared for a pandemic. There is a lack of confidence by pri-

mary care in their ability to be prepared for such a contingency and the establishment of CBACs could act to compound problems that have been identified at the primary care sector.

Establishing actual CBACs would be an expensive option and there are significant barriers, in New Zealand primary care settings, to its practical application for a pandemic situation. There may be no one best solution given the geographical and ethnic diversity. Maintaining readiness via a virtual resource centre may be a better option, and would give GPs confidence if assured of the capability to promptly distribute information and equipment free to surgeries, including contaminated material disposal instructions and instructions to keep staff safe.

This project has particularly highlighted the importance for consultation with the primary care sector early in the development of a public health plan, to identify the important issues with the clinical

services required to implement the plan at the personal health level, namely primary care. This would be especially pertinent in the event of a vaccine-preventable pandemic.¹⁹

The general practitioners and nurses were grateful for the opportunity to be consulted in this project. They felt that the voice of primary care had been heard, and recommended that this type of 'grass roots' consultation on the practicalities of implementing public health initiatives should occur more often and early in policy development.

Acknowledgements

This work was supported by funding from the Ministry of Health Emergency Planning Budget. The authors wish to thank to Dr Margot McLean of Regional Public Health for her contribution to the project and her helpful suggestions on the paper.

Competing interests

None declared.

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