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Thunderstorm Asthma Epidemic – Management challenges experienced by general practice clinics.

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Abstract

Objectives: To understand the challenges faced by general practice (GP) services in terms of personnel, materials, secondary support services, discharge and communication obstacles during the thunderstorm asthma (TA) epidemic in 2016.

Methods: Qualitative study using semi-structured interviews and focus groups between September and October 2017. Participants were general practitioners (GPs), practice nurses and administrative staff working on the TA epidemic days in the northern region of Melbourne, Australia.

Results: 18 participants contributed to the study from six clinic sites. Both daytime and evening clinics experienced a surge in respiratory patient presentations. After-hours clinics were inundated with asthma patients during the night of the thunderstorm. Consistent themes emerged about the challenges encountered by participants the most significant being limitation of medication, equipment, space and personnel. The extraordinary influx of patients necessitated participants innovate solutions including recycling equipment, procuring medications from hospitals and community pharmacies, triage, altering management strategies and extending clinic hours. Participants were limited by the paucity of information from local services during the TA epidemic.

Conclusion: This study supports the view that GP services made a substantial contribution to the emergency response on the evening of the TA epidemic that occurred in Melbourne in 2016. Demands on resources were considerable during and after the epidemic yet GP staff showed great resilience increasing clinic surge capacity. Our findings indicate significant barriers at an organisational level including resource limitations, inadequate operational information and the absence of timely communication channels that impaired the response of GP services during a TA event.

Key Words – Thunderstorm asthma, general practice, primary health care, epidemic.

Introduction

In Australia, the thunderstorm asthma (TA) epidemic that unfolded on the 21st and 22nd of November 2016 in Melbourne, resulted in an unprecedented strain on available healthcare resources [1]. The rapidity of onset and scale of the health care demand set this thunderstorm epidemic apart from any previously reported [2]. Approximately 4,000 respiratory cases presented to emergency services (emergency department presentations and ambulance call-outs) in one night of which thirty patients required ICU admission and 9 deaths were attributed to the asthma symptoms brought about by the storm [3].

Epidemics of asthma associated with thunderstorm weather have been the object of medical curiosity since the first accounts appeared in the literature in the 1980's [4, 5]. However, the phenomenon of a thunderstorm fuelling asthma presentations of epidemic proportions, placing pressure on health services was not appreciated until thunderstorm incident in 1994 in the southeast of England [6].

Thunderstorm asthma epidemics occur when individuals inhale air carrying a high concentration of airborne allergens [7]. In Australia a five to ten-fold rise in hospital attendances of asthma exacerbation patients during late spring thunderstorms and the allergen has been identified as ryegrass pollen [8, 9]. Vulnerable individuals are those sensitised to the triggering allergen or those who suffer from allergic rhinitis (with or without asthma) or those exposed to open air not taking preventative asthma medication [9]. Adding to the uncertainty is not all thunderstorms produce a surge in asthma cases [1]. All these factors combined lead to what is truly a difficult to predict patient surge event.

Thunderstorm asthma epidemics are now considered to be a rare but significant public health challenge worldwide [9, 10]. The capacity to effectively manage the patient surge may be present in general practice services. General practitioners (GPs) are well placed in the community having previously managed the patient surge from bushfires [11], industrial fires [12], and infectious pandemics [13].

Two studies have examined the health services response to the TA epidemic phenomenon, cataloguing the strain on health service delivery in a hospital emergency department (ED) setting [6] and across eight tertiary health services; ED's, hospital admissions and 15 intensive care units [14]. Although the study by Thien and colleagues was not on the GP response to the 2016 TA event, they did conclude that there was a surge in health services demand including general practice during the TA event [14]. Two quantitative studies from the UK have appreciated a surge in asthma presentations to general practice services during [15] and the day after a TA epidemic [16]. However, much uncertainty remains as to the overall challenge faced by primary health services in the management of the patient surge that accompanies thunderstorm asthma epidemics.

In Australia very little is known about the role and contribution of general practice services in disasters and patient surge events despite the literature indicating that GPs almost invariably become involved and are often the first point of call for patients [17]. This represents not only a large gap in knowledge but highlights GPs' contentious position as unacknowledged responders to disasters. Nothing is known about the lived experience of general practice staff during and after the largest TA event ever recorded (21st and 22nd of November 2016 in Melbourne). The aims of this study were to:

- understand the lived experience of GP staff during a TA epidemic; and
- investigate the service delivery challenges faced by general practice services in terms of personnel, materials, secondary support services and discharge obstacles.

Our qualitative study set out to explore rather than test, therefore no hypothesis statements were proposed in this study.

Method

Approach

We used qualitative methods to explore the general practice experience during the TA epidemic on the 21st and 22nd of November 2016 in Melbourne.

Setting and sampling strategy

The northern and western regions of Melbourne experienced the greatest impact of the storm and public hospital in those regions recorded the greatest surge in respiratory problem presentations in the State [1]. Inclusion criteria encompassed any general practice staff who had a clinical role on the

day of the storm or the next day. General practice staff were recruited using two distinct selection strategies. Two general practice clinics, with links to the researchers, were invited to participate in focus groups. A snowball technique was used to recruit additional general practice from clinics in the region, that also experienced a patient surge on the evening of the storm, who were then interviewed.

Data collection techniques

Data collection took place between September and October 2017, 8 to 10 months after the TA event. Three focus groups and four semi-structured interviews were conducted with general practitioners (eleven), practice nurses (PN's)(five) and administrative staff (two), with a total of 18 participants. Questions were derived from an integrative literature review combining both grey literature, primary research and the formal review of the event undertaken by the Inspector General for Emergency Management [3]. The same questions were asked of the focus group participants and the interviewees. The focus groups and individual interviews were audio recorded, transcribed and reviewed by interviewees for completeness and accuracy. Participants were recruited until thematic saturation was reached.

Analysis

Focus group sessions, interviews and analysis were conducted concurrently using a combined inductive and deductive approach. As similar themes emerged during the focus groups and the interviews, the results were considered comparable and therefore analysed together.

Through repeated reading of the transcripts by two researchers, codes were created. Data was sorted and tagged into codes which were linked together to creating categories and emerging themes were recoded ~~recorded~~. Discordant evidence was also noted. Researchers aimed to link categories to current theories to make the finding generalisable to other settings.

Ethics

The University of Latrobe School of Psychology and Public Health ethics committee gave approval for this study (S17-041).

Results

Six practices participated in the study with a total of 18 participants: 11 GPs, 5 PNs and 2 administrative staff who took on clinical nursing tasks during the thunderstorm as shown in Table 1a and 1b. All practices were in Melbourne's northern region and were either urban or semi urban practices.

The four themes of experience, resources, communication and changes for the future emerged as a framework for participants expressing their recollection of the event.

Experience of the TA epidemic

Four of the GP interviewees and one focus group planned to work late in their clinics. All recall the initial patient surge sometime between 5 - 7 pm as patients presented with breathing difficulties. During the night patients entered the clinic in larger than normal numbers, in repeated waves. Two focus groups with daytime opening hours only, also experienced an increase in asthma presentations prior to their clinics closing.

Participants working in evening opening hours clinics describe the patients surge as “overwhelming” with “scary” and “challenging” moments, but all felt their clinic staff had made extraordinary efforts during the night. Initially, staff reacted with perplexity and confusion. Only later during the night did they appreciate that this was an exceptional event. All remember working continuously during the evening and many into the early hours of the next morning.

GP(M): “...on that particular day I was seeing patients, and the nurses kept calling me to say, ‘you know there is a patient in the treating room who is having difficulty breathing, and that became a regular pattern. So, one after the other, more patients and I was, at some point, I was getting annoyed because I was thinking ‘what’s happening here, because.... because I didn’t know what was happening and actually no one knew what was happening.’”

GP (M): “I have been a GP since 1992, I’ve never come across that term: thunderstorm asthma. Not that name.”

GP (F): “At some point in time, after an hour or so, we started seeing a lot of walk-ins and then suddenly there was a gush of more than 100 patients in one hour.”

Admin (M): “We saw 460 patients on those 2 days. Our usual number is about 140 per day.”

Resources

Practices with evening opening hours all reported complete exhaustion of medication and equipment and challenges with space and personnel, as outlined in Table 2. These included standard supplies for asthma management (nebuliser face masks, beta agonist nebulers, beta agonist inhalers and prednisolone). Daytime clinic participants reported some resource depletion but acknowledged that their clinics were closing at the same time as the onset of the storm.

GP (F): “.... We made that room into a sort of recycling room where we were sanitising all the masks, we were sanitising all the machines, we were getting ready for the next lot.”

GP (M): “So whoever was around stayed because they knew they couldn’t leave either.... I mean it wasn’t like somebody had a conversation to say, ‘I think you should stay,’ they just stayed...not really a choice, they just had to....no one knew what else to do.”

Management strategies to increase surge capacity

All participants described clinics processes altered to accommodate the large surge in patients. Clinics were managed like an “emergency department,” with the utilisation of triage protocols, staff managing multiple patients at once, doctors instructed to “come out of the rooms” and patients had very little privacy. GP’s commencing treatment prior to obtaining a detailed history, recording only brief treatment notes and patient details, completing full medical notes after discharge. Treatment, monitoring and education was delivered to groups of patients en-masse by three clinics.

GP (F): “It was like an emergency department. We booked them in, in the waiting rooms...then examining them in the waiting room. Instructions given then and there. Treatment was given in the waiting room as well...we left [all] the doors open, so that everyone knows what is happening around them...so there are no surprises.”

GP (F): “So, one nurse had 20 [treatment] forms, another nurse had 30 [treatment] forms, with names, date of birth, so we knew what we were doing with every patient... not on a one on one basis but in general, on a piece of paper.”

Communication

Information about the nature of the event from hospitals, ambulance services and pharmacies were limited. There was no information regarding ambulance delays available to any participant.

GP(M): “But even then, I was actually not sure what this was, I didn’t know this was an emergency, a crisis.”

PN (F): “I know there was a long wait for ambulances, no fault of their own, they were extremely busy but if we had been aware, it would have helped.”

All evening clinics used their established links to local pharmacies to obtain medication and equipment either directly or indirectly. A single clinic was able to obtain medication, equipment and staff from another clinic in their network closing for the night.

However, participants’ links to local public hospitals influenced referral of patients in both directions. Using an established link, a GP contacted an ED consultant directly for advice about a patient’s management only to learn that over 400 patients were waiting for treatment in the hospital car park. At another, clinic staff were contacted by hospital staff who requested that the general practice take the less urgent asthma cases who would otherwise endure a long wait in the hospital ED. Information from hospitals not only altered their understanding of the emergency, that it was life threatening and widespread, but GP staff put significant efforts into managing patients in their clinics without hospital referrals. No participants recall information coming from the Department of Health and Human Services, ambulance services or emergency services that evening or the next day.

Accessibility

On the night of the storm GP staff identified factors that facilitated patient access to clinics. These are outlined in Table 3.

Discussion

Two general practice studies examined the same TA epidemic in the UK uncovered an increased demand on primary health care (GP) services during the thunderstorm [15] and immediately after [16]. In Australia Thien et al’s report on the health services impact of the Melbourne 2016 TA epidemic describes the impact on tertiary health care [14]. Despite asthma management largely being the domain of general practice, no data was gathered from general practice [18]. The current qualitative study explores the experience of the TA event in general practice to provide a foundation for a discussion of, and planning for, strengthening the role of general practice services and their integration into the overall service response to emergencies [17].

Distinct patterns of experience were apparent in the interviewee accounts of the 2016 thunderstorm asthma event. At an individual level GP staff showed great resilience and adaptive capacity in their skills and knowledge to respond to the rapid patient surge, qualities proving to be invaluable assets given the inherent uncertainties of this disaster. As impressive and important as these individual responses were a well-functioning health system cannot rely on the presence of such individuals in future emergency situations. Interviewees also reported significant barriers at an organisational level including resource limitations, inadequate operational information and the absence of timely communication channels that impaired the response of GP services. These barriers were present in the accounts of interviewees from all of the organisations in the study and we suggest they may reflect institutional characteristics, or regularities, widespread in the general practice sector [19].

To further the development of emergency planning in general practice and enhance general practice integration into a health system response to emergencies, these issues should be explored further within the health system framework. The barriers experienced by our informants are discussed below.

Resource limitations, relating to equipment, medication, space and personnel has been demonstrated in an earlier London study sampling ED's [5]. When our interviewees encountered these barriers, they implemented innovative solutions: use of non-traditional treatment space, telephone advice facilities, rationing medication, recycling equipment, altering patient management/education methods and procuring resources from community partners. As a result, our GP participants expanded the surge capacity within clinics to manage the extra patients as needed, and the majority of patients were able to be safely discharged after treatment without hospital referral. Surge capacity is the ability to manage the sudden, unexpected influx patient numbers that would ordinarily severely challenge or exceed the capacity of a health care system [20]. Surge capacity has never been previously examined in relation to general practice and disaster management [21].

Informal links (personal contacts) currently form the backbone of communication to and from general practice clinics during a rapidly unfolding mass casualty event such as thunderstorm asthma. Canadian family physicians (GP's) indicated their willingness to be contacted on an urgent basis regarding respiratory public health emergencies indicating advice relating to respiratory pandemics could be accessed via email, fax, internet bulletin boards or a telephone "hot-line" [22]. US hurricane survivors were managed by family physicians (GP's) who benefitted greatly from an established medical "hot line" with their community partners (hospital, ambulance, and pharmacy) [23]. Yet many of our participants were unaware of the scale and impact of the respiratory epidemic as there was no timely sharing of information or operational communication.

Overall, within their clinics GP services were able to meet the challenge of ensuring patients have access to care during a period when demand exceeded available resources. GP services have well-functioning adaptive management systems (triage, treatment and tracking of patients) and resources of space, supplies and staff or the ability to procure these resources and innovate solutions. GP's effectively increased the surge capacity in their clinics. Yet communication barriers prevented them from fully participating in the surge capacity for the state's emergency medical response. Clearly defined roles and integration into existing emergency response systems remains elusive for GPs [17].

In light of the omission of primary care data from previous studies, this exploratory study is the only one of its kind to document the general practice experience to a TA epidemic. The findings of this research into a rapidly unfolding short lived and intense disaster provides insights for emergency response authorities, public health planners and general practice providers as to the barriers that still exist in disaster preparedness and response involving the general practice sector. No doubt a greater understanding of the increased demand in a primary care setting can only improve the public health response to thunderstorm asthma epidemics.

Our study was limited by its small sample size and recruitment of participants through researchers established professional link to two practices. Our findings are not necessarily representative of all GPs although care was taken to sample both daytime and evening hours clinics. Additionally, use of both focus groups and individual interviews allowed for triangulation of data confirming the major themes.

Declaration of Interests and Acknowledgements

The authors declare no conflict of interest.

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The paper or any part of the data contained in it, has not been previously published, and is not currently being considered for publication by any other journal. All the authors have seen and approved the final copy of this work and ensured the integrity of it. The authors agree to assign copyright should the paper is accepted for publication.

References

1. Guest, C. The November 2016 Victorian thunderstorm asthma epidemic event: an assessment of health impacts- The Chief Health Officer's Report April 2017. Melbourne: Victoria Government 2017. <https://www2.health.vic.gov.au/public-health/environmental-health/climate-weather-and-public-health/thunderstorm-asthma/response> (accessed Aug 2018).
2. D'Amato, G., Maesano, I. A., Molino, A., Vitale, C., & D'Amato, M. (2017). Thunderstorm-related asthma attacks. *Journal of Allergy and Clinical Immunology*, 139(6), 1786.
3. Inspector-General for Emergency Management. Review of response to the thunderstorm asthma event of 21–22 November 2016 Final Report. Melbourne: Victorian government, 2017. <https://www.igem.vic.gov.au/reports-and-publications/igem-reports/review-of-response-to-the-thunderstorm-asthma-event-of-21-0> (accessed Sept 2018)
4. Packe, G., Archer, P. S., & Ayres, J. (1983). Asthma and the weather. *The Lancet*, 322 (8344), 281.
5. Egan, P. Weather or not. *MJA*1985, 142(5), 330-330.
6. Davidson AC, Emberlin J, Cook AD, Venables KM. A major outbreak of asthma associated with a thunderstorm: experience of accident and emergency departments and patient's characteristics. *BMJ*1996; 312(7031): 601-604
7. Taylor, P. E., & Jonsson, H. (2004). Thunderstorm asthma. *Current allergy and asthma reports*, 4(5), 409-413.
8. Bellomo, R., Holmes, P., Gigliotti, P., Treloar, A., Suphioglu, C., Singh, M. B., & Knox, B. (1992). Two consecutive thunderstorm associated epidemics of asthma in the city of Melbourne, The possible role of rye grass pollen. *Medical Journal of Australia*, 156(12), 834-837.
9. Davies, J. M., Erbas, B., Simunovic, M., Al Kouba, J., & Milic, A. (2017). Literature review on thunderstorm asthma and its implications for public health advice. Victorian State Government: Queensland University of Technology. <https://www2.health.vic.gov.au/about/publications/researchandreports/thunderstorm-asthma-literature-review-may-2107> (accessed Oct 2018).
10. Dabrera, G., Murray, V., Emberlin, J., Ayres, J., Collier, C., Clewlow, Y., & Sachon, P. (2012). Thunderstorm asthma: an overview of the evidence base and implications for public health advice. *QJM: An International Journal of Medicine*, 106(3), 207-217.
11. Victorian Bushfires Royal Commission. 2009 Victorian Bushfires Royal Commission: final report. (9780980740820, 9780980740837, 9780980740844, 9780980740851, 9780980740813). Melbourne: Victorian government, 2010. <http://royalcommission.vic.gov.au/Commission-Reports/Final-Report/Summary.html> (accessed Sept 2018)

12. Teague, B. Hazelwood Mine Fire Inquiry Report. Melbourne: Victorian government 2014.
<http://report.hazelwoodinquiry.vic.gov.au/> (accessed Aug 2018).
13. Australian Government Department of Health and Ageing. Review of Australia's health sector response to pandemic (H1N1) 2009: lessons identified, Canberra: AHA 2011.
[https://www.health.gov.au/internet/publications/publishing.nsf/Content/review-2011-1/\\$File/lessons%20identified-oct11.pdf](https://www.health.gov.au/internet/publications/publishing.nsf/Content/review-2011-1/$File/lessons%20identified-oct11.pdf) (accessed Sept 2018).
14. Thien, F., Beggs, P. J., Csutoros, D., Darvall, J., Hew, M., Davies, J. M., ... & Byrne, T. (2018). The Melbourne epidemic thunderstorm asthma event 2016: an investigation of environmental triggers, effect on health services, and patient risk factors. *The Lancet Planetary Health*, 2(6), e255-e263.
15. Higham, J., Venables, K., Kopek, E., & Bajekal, M. Asthma and thunderstorms: Description of an epidemic in general practice in Britain using data from a doctors deputising service in the UK. *Journal of Epidemiology and Community Health* 1997;51(3): 233-238.
16. Hajat S, Goubet SA, Haines A. Thunderstorm-associated asthma: the effect on GP consultations. *The British journal of general practice: the journal of the Royal College of General Practitioners* 1997; 47(423): 639-641.
17. Burns, P., Aitken, P., & Raphael, B. Where are general practitioners when disaster strikes? *MJA* 2015; 202(7): 356-358.
18. Guest, C. The November 2016 Victorian thunderstorm asthma epidemic event: an assessment of health impacts- The Chief Health Officer's Report April 2017. Melbourne: Victoria Government 2017. <https://www2.health.vic.gov.au/public-health/environmental-health/climate-weather-and-public-health/thunderstorm-asthma/response> (accessed Aug 2018).
19. Scott, W. R. (2008). *Institutions and organizations: Ideas and interests*. Sage.
20. Hick, J. L., Hanfling, D., Burstein, J. L., DeAtley, C., Barbisch, D., Bogdan, G. M., & Cantrill, S. (2004). Health care facility and community strategies for patient care surge capacity. *Annals of emergency medicine*, 44(3), 253-261.
21. Nicoll, A., Wilson, D., Calvert, N., & Borriello, P. (2001). Managing major public health crises: Lessons from recent events in the United States and the United Kingdom. *BMJ* 2001; 323(7325): 1321-1322.
22. Hogg, W., Huston, P., Martin, C., & Soto, E. (2006). Enhancing public health response to respiratory epidemics: are family physicians ready and willing to help? *Canadian Family Physician*, 52(10), 1254-1260.
23. Pierce Jr, J. R., Pittard, A. E., West, T. A., & Richardson, J. M. Medical response to hurricanes Katrina and Rita: local public health preparedness in action. *Journal of Public Health Management and Practice* 2007;13(5): 441-446.

Table 1a: Focus Group Participant Characteristics

Code	Interview date	Participants numbers	Clinic Hours on 21 st &	Clinic accepts "walk-in"	Ages numbers range	Male /Female

			22nd	patients ¹		
FG1	24 th July 2017	GP- 3 PN -3	8am - 6pm	No	25-45 (n=6)	Six Females
FG2	25 th July 2017	GP- 2 PN- 1	8:30- 5pm	No	25-45 (n=1) 46-59 (n=2)	Two female and one male
FG3	16 th August 2017	GP- 2 PN- 1 Admin-2	8am- 12 pm	Yes	18- 25(n=1) 25-45 (n=3) 46-59 (n=1)	One female and four males

Table 1b: Individual Interview Characteristics

Code	Interview Date	Participant	Clinic hours on 21 st & 22 nd	Clinic accepts “walk- in” patients” ¹	Age	Male/Fe male
II01	16 th August 2017	GP	8am-12pm	Yes	25-45	Female
II02	20 th September 2017	GP	8am-8pm	Yes	46-59	Male
II03	24 th September 2017	GP	8am-10pm	Yes	25-45	Male
II04	15 th August 2017	GP	Open all day and night (24hrs)	Yes	25-45	Female

¹“Walk -in” patients are those who present to the general practice with no prior appointment.

Table 2 Resource limitations experienced in the 48 hrs following the TA epidemic

Medication - total depletion of all clinic medication during the night in all evening clinics - requesting patients use their own salbutamol puffers while waiting for/or instead of nebulisers - request patients purchase their own medication (and spacers) and return for treatment - clinics requested medication directly from nearby pharmacies/hospitals/other GP clinics. - clinics were advised that local pharmacy stocks of medication were depleted/exhausted - clinics were advised that local hospital ED stocks of salbutamol nebulisers were depleted/exhausted	Equipment - clinic equipment exhausted affected all participants whose practices were open late - rationing of nebuliser machines - reusing disposable masks and tubes for nebuliser machines became necessary during the night - equipment washed and recycled when supplies ran out - while patients waited for the nebuliser machines to become available, they were requested to take salbutamol via a spacer - clinics were able to restock equipment and medicine the next day
Treatment space - opened empty consultation rooms - space inside rooms overfilled - commenced treatment in the waiting room. - rotate patients requiring nebulisation into the treatment room in groups - patients queueing outside rooms awaiting treatment. - patient’s relatives asked to wait outside the building	Personnel - most clinics experienced staffing challenges - personnel numbers were described as adequate by two clinics - clinic hours were extended by all evening clinics - staff volunteered to work late into the night and in one case into the early morning - no participants recalled staff refusing to extend their shifts

• requested that non-urgent patients reschedule appointments. • spacers and puffers in the consulting rooms increased the treatment capacity of the clinic • on subsequent days space limitations were not a problem for any clinic even though they remained busy. • Majority of patients able to be managed in the clinic without hospital referral.	while the clinics remained busy • altering staff roles allowed basic clinical tasks (checking oxygen saturation and alerting doctors) to be taken on by administrative staff. • only a single practice, had the resources to call in additional nursing and administrative staff during the evening. • Some staff required treatment for asthma symptoms during the evening of the storm
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Table 3. Effective access and management strategies during the TA epidemic

Management strategies	Accessibility
• clinics managed like an “emergency department,” (FG3, II01, II03 & II04) • utilising triage protocols • commencing treatment prior to obtaining a history • recording only brief treatment and patient details • completing full medical notes after discharge • room doors were left open during treatment • doctors instructed to “come out of the rooms” • patients had very little privacy. • treatment, monitoring and education was delivered to groups of patients en-masse by FG3, II01 and II04 (patient numbers were so large) • doctors and practice nurses managing multiple patients at once was the norm during the evening. • The majority of patients were safely discharged home following treatment	• bulk billing practices (offering free medical care) • remained open later than their regular opening hours • continued to take phone calls later than their regular opening hours • continued to accept ‘walk-in’ patients without a prior booking beyond their advertised closing time. (high numbers of ‘walk-ins’ continued to attend the clinics the next day as well). • clinic staff encouraged patients to come in rather than go to the hospital ED when they phoned the clinic for information. • informal referral of patients to clinics by other general practices in the region who were closing • informal referral by other patients • informal referral of patients from hospital emergency departments.