

## Editorial

### Emergency medicine and public health

### 急症醫學與公共衛生

TW Wong 黃大偉

The SARS (Severe Acute Respiratory Syndrome) saga in 2003 was a wake up call for our health care system to respond to new challenges. Public health will affect everyone and all branches of medicine. Emergency Medicine (EM) is of course no exception.

The traditional view that EM should only concern itself with the evaluation and management of individuals with critical illnesses is probably too narrow. By providing a safety net for all individuals who need care, we have always been a part of the public health system in the broad sense. Pollock et al pointed out that there were at least four areas where EM and public health could collaborate: surveillance of diseases, injuries and health risks; monitoring of health care access; delivery of clinical preventive services and developing policies to protect and improve the public's health.<sup>1</sup>

Surveillance for emerging infectious diseases is a key concern of our society now. This could be SARS, avian flu or just seasonal influenza. Since we, together with the primary care providers in the community, are at the frontline, we are strategically placed in the system to detect the emergence of an infection outbreak. Indeed some colleagues have already used emergency department (ED) data for disease surveillance and they have been able to alert the community that specific public health interventions appeared warranted in presentations related to dog bites, rubella, chicken pox,

and other conditions.<sup>2</sup> With the improvement in information technology, we should be able to provide real time surveillance in the outbreak of diseases. For example, if clinical data of all fever case attendance are captured in the computer system, any sudden surge or clustering of cases will be obvious. In the United States, there are already projects of ED-based multi-centre surveillance network e.g. EMERGENCY ID NET.<sup>3,4</sup> Sentinel surveillance for bioterrorism is a hot topic in the United States recently, but is probably not a big concern in Hong Kong.<sup>5</sup>

Surveillance for non-infectious diseases would be beneficial too. A smart nurse who spotted palpitation in association with consumption of pig offal in a patient would help health officials in identifying clenbuterol as the culprit and tracking down the source. Likewise, the identification of a cluster of cases of humeral fracture related to arm wrestling machines led the consumer council to warn game parlours and citizens. These are good examples of sentinel surveillance. Perhaps, other forms of violence are more relevant in our context. Injuries as a result of violence are common in the ED and we can do more than just treating the wounds. In the early nineties, we started to study the epidemiology of victims of domestic violence presenting to the ED.<sup>6,7</sup> We also contributed to the development of the multi-disciplinary guidelines in the handling of battered spouse and the database for victims in the Social Welfare Department. Similarly, we could contribute in the surveillance of child abuse, sexual abuse and deliberate self-harm. For example, we are in a good position to pick up the new trend of committing suicide by charcoal burning in recent years. A poisoning database based on cases presenting to all the local EDs would also provide

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Correspondence to:

Wong Tai Wai, FRCSEd, DCH(Ire), FHKAM(Emergency Medicine)  
**Pamela Youde Nethersole Eastern Hospital**, Accident and  
Emergency Department, 3 Lok Man Road, Chaiwan, Hong Kong  
Email: [wongtw1@ha.org.hk](mailto:wongtw1@ha.org.hk)

useful data as suicide and poisoning is the number one cause of death in the younger population.

In Emergency Medicine, we probably do not think preventive care is our core business. However, in our daily practice, we do advise patients on smoking cessation when the occasions arise. We do screen out patients with high blood pressure and give tetanus shots. The Society of Academic Emergency Medicine has recommended a list of activities for prevention, screening and counselling in the ED.<sup>8</sup> Of course, we need to come up with things that are relevant to our practice. Primary prevention recommendations can come out from surveillance studies in the ED. For example, the patterns of childhood injuries at home and at play will guide us to modify the environment to prevent injuries from happening.<sup>9</sup> Universal screening for domestic violence in all ED attendees also has its strong advocates though its benefit is still controversial.<sup>10</sup> There are also cases that only present to the ED in time of crisis where prevention of recurrences may still be a goal. We all have met recalcitrant alcoholics and heroin addicts who are well known to the social service. There are also teenagers presenting with substance abuse where timely interventions may make a difference. Patients come in after interpersonal violence or deliberate self-harm also need crisis intervention to prevent bad outcome. Intervention by social worker on-site would be an ideal solution for such cases. However, with the present resource constraint, this may not be possible.<sup>11</sup> Some innovative approaches may be called for. The Harmony House is piloting a Crisis Intervention Team to handle domestic violence cases after office hours. Rainlily, the only crisis intervention centre for sexual abuse victims in Hong Kong, has provided a 24-hour outreach program for such cases presenting to the ED.

On the policy level, Emergency Medicine can also play a role. Public Health policy will affect the whole population who is within the target of the policy. A recent example would be charging for ED attendance. We are in a good position to gauge the effect of different levels of charges on access by different patient groups. We can also advocate for changes in policies relating to injury prevention e.g. legislation on child restraint in motor vehicles. We must be prepared and willing to share our knowledge gained in the trenches on many issues that are affecting the health of our population.

Emergency Medicine and Public Health may seem to be two poles of medicine at first glance. But, they have more in common if we look at them from a different perspective: both aim at improving the health of the population. We must prepare ourselves to take up this challenge.

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