

EVIDENCE BASED PUBLIC HEALTH POLICY AND PRACTICE

Behind the mask. Journey through an epidemic: some observations of contrasting public health responses to SARS

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SARS has been called the first global epidemic of the 21st century and has been the cause of a massive and varied public health response in many countries of the world. This report describes observations made by two authors on a journey from Manchester in the United Kingdom to Chiang Mai in Thailand during the peak of global transmission. The public response to SARS, particularly characterised by the wearing of face masks, seemed to outstrip official guidance. Though of uncertain protective benefit, the wearing of masks may have contributed to the awareness of the collective and personal responsibility in combating infectious disease. Active and empowered involvement of the general public in implementing and cooperating with public health control measures supported by national and international authorities has clearly helped to bring SARS under control. The public health significance of such potent symbols as the face mask may be considered in strategies to tackle other emerging infections.

Severe acute respiratory syndrome (SARS) was first identified in mid-February 2003 as atypical pneumonia of unknown aetiology affecting patients in China, Hong Kong, and Viet Nam. The World Health Organisation (WHO) issued a global alert on the 12 March concerning all cases of atypical pneumonia that might be linked with these three outbreaks.¹ The first cases arose in the Guangdong Province of China in November 2002 and the infection transmitted in February first to Hong Kong and then globally through a single infected doctor.²

SARS has been called the first global epidemic of the 21st century³ and has been the cause of a massive and varied public health response in many countries of the world. We describe here observations made by two authors on a journey from Manchester in the UK to Chiang Mai in Thailand during the peak of global transmission. We compare and contrast the perceptions of the SARS epidemic, the official response to the threat of transmission, and the roles of public and media reaction in controlling infection, in particular through the wearing of face masks. We also discuss the impact of public health guidance given in high profile situations where the threats are not fully understood.

LEAVING EUROPE

Two of the authors were due to attend an international conference on harm reduction in Chiang Mai in early April. Active surveillance for SARS was in place in the UK after the first probable case reported in a Manchester traveller returning from Hong Kong. A general travel advisory had been issued by WHO on 15 March recommending that all air travellers, including air crew, should be aware of the main signs and symptoms of SARS.⁴ The advisory also outlined specific guidance in the event of a possible case being

identified on a flight. This was updated on 27 March to recommend exit screening of air passengers departing from areas where transmission was known to be occurring in local chains.⁵ The only specific travel advice given (on 2 April) was to postpone all but essential travel to Hong Kong and the Guangdong region of China.⁶ Newspaper coverage in the UK had been extensive although primarily focused on detailing the developing outbreak in Asia and technical explanations for the characteristics of the syndrome.

The flight was in the first week of April from Manchester airport. The authors saw no posters or other information about SARS at the airport and there was no mention of the disease on the first leg of the flight to Paris. We changed planes in Paris and observed a few people wearing surgical masks in the airport terminal. The final destination for our connecting flight was Taiwan via Bangkok, Thailand where we were due to change planes again. No one on the flight wore a mask and there was no information given about SARS during the flight.

WELCOME TO THAILAND

On landing, therefore, it was rather a surprise to find all staff in Bangkok airport wearing surgical masks, including customs officials, cleaners, and police. Many passengers were shocked and began to worry, as there had been no information given on the incoming flight. The masks being used were quite basic and not of the specification recommended by the WHO for use when caring for a SARS patient.⁷

There was no reported transmission of SARS in Thailand at this point, although there had been seven cases and two deaths associated with travel from infected areas. We asked a policeman about the masks and were told that the Health Ministry had ordered use of surgical masks in the airport. It was not clear whether the type of mask had been specified or what the evidence base for this advice was. Masks had only been recommended by WHO for patients, those handling SARS specimens or those caring for SARS cases.⁷

From Bangkok, we were due to fly on to Chiang Mai from the domestic terminal, where staff similarly wore masks. By the time we had boarded the flight, some of our fellow passengers also flying on to Chiang Mai had responded by buying masks, which they now wore. None of the cabin crew on the flight wore masks and there was no sign of any SARS precautions on arrival at Chiang Mai airport.

PERCEPTIONS AND RESPONSES

At the beginning of April, face masks were reported to be out of stock in many convenience stores and with many distributors in the English language Thai daily *The Nation*.⁸ The paper had run several articles encouraging the use of face masks to prevent spread of infectious disease. It describes how thousands of masks had been distributed to protect hospital staff and, by one private hospital, to school children, encouraging their use if the children had respiratory symptoms.⁹ An interview with a doctor from this private

hospital suggested that Thais were more embarrassed to use face masks than those in Japan where face masks had been used for over 50 years to prevent disease but that "studies show that when you wear a proper mask, you reduce the chances of spreading diseases by 90 per cent."⁹ Popular movie stars and singers had apparently been enlisted to increase public awareness of the benefits of face masks.⁹ Face masks had also been distributed in parliament in the week before our arrival, amid fears that senators returning from visits abroad were infected with SARS.¹⁰ Hundreds of masks were also given to officials, reporters, and visitors in the parliament buildings by the Parliament Secretariat.¹⁰ It was not clear what impact WHO advice on the use of masks had on this apparently spontaneous acquisition of face masks.

The conference we attended was held in a large business hotel and attended by a wide range of health professionals working in harm reduction from around the world. Fewer than expected delegates from the United States of America and no delegates from China attended. The conference organisers provided a SARS advice desk for concerned delegates and we were advised to report to the desk if we developed any SARS symptoms.

In addition, the same style of surgical masks used in Bangkok airport were provided as part of the conference pack for delegates. Many delegates used these masks sporadically in and around the hotel, removing them at meal times and usually for photos. Through the week, some of the hotel staff also began to wear masks in the hotel, again sporadically and apparently not in response to any official guidance. After the conference, the ad hoc appearance and use of masks continued on the return journey. Many people used a single mask for the entire length of the flight from Bangkok to Manchester. Many other mask wearers removed them to cough, sneeze, or wipe their nose (regularly not into a handkerchief) and as baskets of bread rolls were passed around most people removed masks and rummaged for their preferred type, replacing the mask only after dinner was finished.

DISCUSSION

One of the differences apparent between the response to SARS in the East and the West has been perceptions on the use and value of masks as means of personal protection against the infection. Media coverage in the West gave consistently high profile to describing the progress of the SARS epidemic in the East and associated this coverage with photographs and news clips of members of the public wearing a variety of different masks.¹¹ It has been suggested that the mask became to SARS what the condom symbolised for HIV/AIDS.¹¹ Popular cultural references to SARS have usually included masks and the special significance attached to them.^{12 13}

The cultural assimilation of the mask seems have to run in parallel with a general acceptance of the importance of SARS in view of its public health, social, and economic impacts on the communities affected.² This assimilation has anticipated and reflected the high degree of local, national, and international cooperation that has been required to control the global spread. The mask became a highly visible symbol of individual and collective determination to achieve control even though its value in community settings is questionable. The pace of change when a new infection emerges can be rapid and may outstrip attempts to achieve communication.

The media are active participants in the efforts to achieve effective communication to the public on emerging issues and may have considerable influence on public opinion on actions that can be taken. In addition, we observed the power of peer pressure with people quickly responding to the spectacle of masked crowds by purchasing their own face masks, in the absence of clear information.

Despite the observed lack of guidance and consistency in the use of masks, the low levels of basic hygiene employed by users and therefore the limited value of mask wearing in preventing community spread, efforts to improve perception of public health risks can assist the management of major communicable disease incidents by empowering the general public and strengthening perceptions of personal control.¹⁴ Active and empowered involvement of the general public in implementing and cooperating with public health control measures supported by national and international authorities has clearly helped to bring SARS under control. Perhaps it is this perception of the importance of personal and collective responsibility by members of the public that the mask symbolises best and the public health contribution of this symbolism should be remembered for future emerging infections.

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