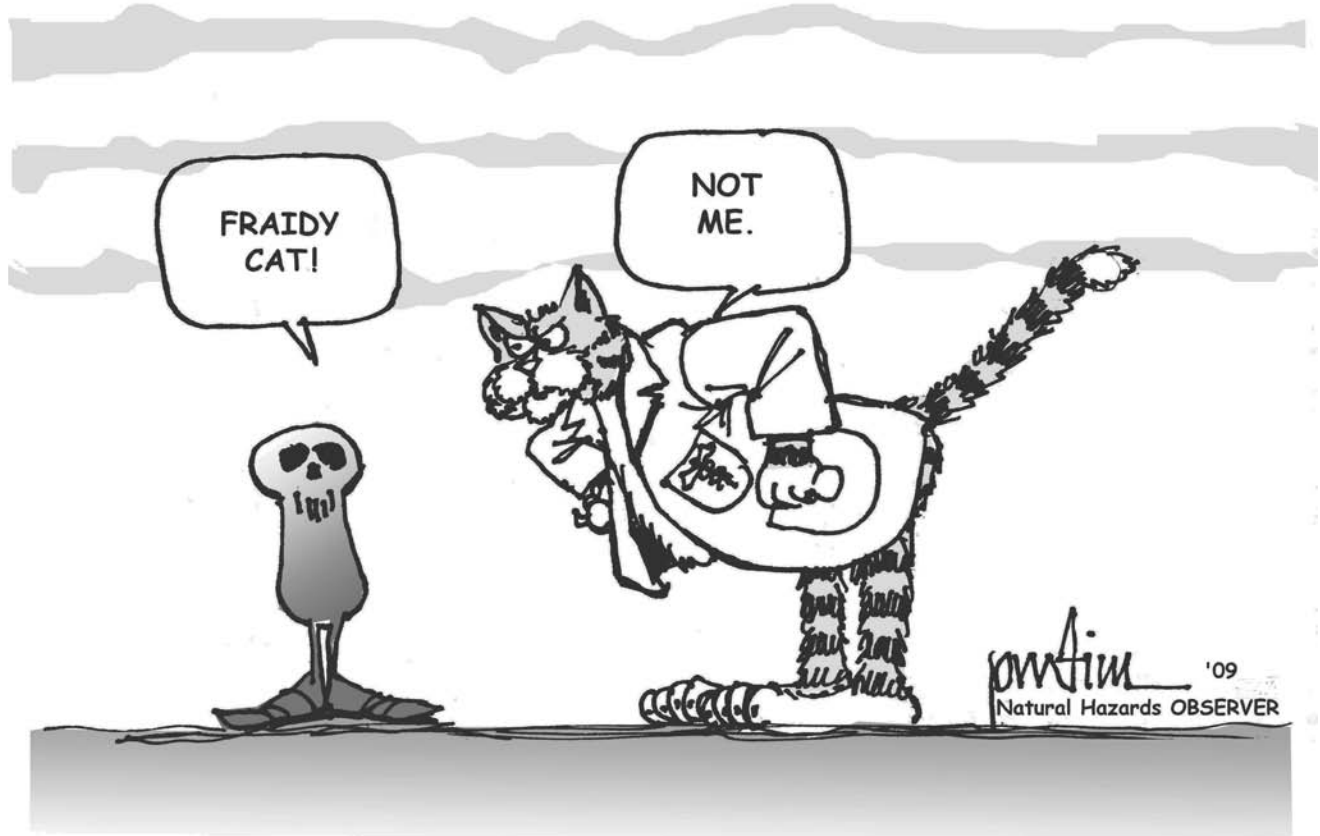


Will Emergency Workers Show Up for Work?



IN BARCELONA IN 1651, MASTER TANNER MIQUEL PARETS lost his wife, his two older sons, and his only daughter to the plague. Only he and his four-year-old son Gabrielo survived. Paretz wrote in his diary that no midwife was prepared to assist a plague-stricken mother giving birth. Priests would not provide the sacraments, even the last rites. Monks offered Communion at the end of a rod to avoid direct contact with the victims (Paretz 1991).

On one level, Paretz' small book is an account of one family's tragedy. But on another, it can be seen almost as a mid-17th century assessment of disaster management—one which, if you didn't know its provenance, might sound remarkably modern. In 1651 Barcelona, city authorities organized an evacuation of the city, isolated people to try to check the spread of the disease, distributed food ("badly organized," the tanner says), provided emergency health services, dealt with people too poor or otherwise unable to evacuate, disposed of corpses, handled mental health issues, anticipated where issues would arise next, provided emergency shelters ... and so on.

The seventeenth century plague and other more modern events offer lessons in a growing area of concern in the face of the emerging H1N1 flu epidemic—whether health workers will show up for work in a disaster. Several recent studies have indicated that there may be workforce reductions at hospitals when people decline to come to work in a disaster, especially those involving a biological agent or radiation (*Natural Hazards Observer* July 2009).

But the lessons of history, of other disasters, and the

actual behavior of emergency workers—as opposed to what they say they'll do in the abstract—give reason to believe that most do not succumb to "role abandonment."

In *A History of Plague 1345-1730*, William Naphy and Andrew Spicer (2001) describe situations similar to Barcelona's when the plague struck London in 1665:

(See "Role Abandonment," continued on page ten)

Excerpts from:

A Journal of the Plague Year

By Miquel Paretz

Translated and edited by James S. Amelang

How the sacraments were administered during the plague (Barcelona, 1651 CE)

The plague kept spreading in late April and early May. The dead and the sick were now carried in heaps to the pesthouse of Jesus, and the vicars in charge of the parishes either fled or died. Since none of the priests wished to serve as vicars and administer the sacraments, monks were sent to all the parishes to administer them.

The number of monks varied according to the size of the parish, and they ate and drank and lived in the vicarages and walked around with their robes cut short up to their knees. If there were two in a parish one went in front confessing and the other carried the Holy Sacrament behind him.

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Role Abandonment ...

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Many officeholders and people in positions of responsibility were fleeing the city and their civil responsibilities. ... The authorities (or those who remained) were powerless to halt the tide of fleeing refugees.

C.V. Wedgwood, writing in a 1965 issue of the *New York Times Magazine* says the wealthy left London, tradesmen closed their shops, clergy abandoned their parishes, and “most of the doctors followed their wealthy patients into the country.”

In fact, it may not be relevant whether physicians stayed in London or other cities during past pandemics. In the 17th century, physicians looked after their own patients, persons who paid them. Those people were usually wealthy enough to flee the city during a plague and their physicians went with them. The idea that physicians had an ethical duty to care for the sick during an epidemic did not become common until the early nineteenth century (Wallis 2006).

Centuries later, in 1952, after his study of the Texas City explosion—when 2,300 tons of ammonium nitrate aboard the vessel *Grandcamp* exploded in the town’s harbor in 1947, killing over 600 people—Lewis Killian concluded:

The great majority of persons... involved in such dilemmas [family versus work] resolved them in favor of loyalty to the family or, in some cases, friendship groups (Killian 1952).

In 2006, Jacalyn Duffin, professor of History of Medicine at Canada’s Queen’s University and co-editor of *SARS in Context*, wrote that when an unknown disease strikes, doctors and nurses, will sicken, even die, along with their patients:

This discouraging lesson pales in contrast to another: medical cowardice will arise. For every valiant doctor who died from the disease being fought, another ran away (Duffin 2006).

Recently, Ron Balicer (2006) and others surveyed health workers in Maryland. They reported in *BMC Public Health* that roughly half said they would not report to work during a pandemic. Lori Masterson (2009) and others did a roughly comparable study in urban and Midwestern hospitals and report in *The Journal of Emergency Medicine* that a willingness to report to work dropped when a biological or radioactive agent was involved.

Finally, in a study published in the July 24 edition of the journal *PLoS ONE*, “Approximately one in six public health workers said they would not report to work during

a pandemic flu emergency regardless of its severity, according to a survey led by researchers at the Johns Hopkins Bloomberg School of Public Health. The findings are a significant improvement over a 2005 study conducted by the same research team, in which more than 40 percent of public health employees said they were unlikely to report to work during a pandemic emergency.” The study also found that workers who thought their jobs were important were more likely to come in during a pandemic (Barnett 2009).

No Role Abandonment

ALL THESE EXAMPLES SEEM TO SHOW there may be a serious problem getting medical personnel and others

It is possible that a pandemic may raise different problems. It builds up over time. It gives those involved time to ponder. It will likely be a highly contagious disease. Anyone in contact with victims has every reason to believe he or she could become a victim, too. Many could think quite rationally that helping someone could be fatal.



with emergency responsibilities to do their duty when a pandemic strikes. However, it is not clear that these anticipatory questions reflect what happens in an actual emergency. There is substantial evidence that what sociologists call “role abandonment” does not happen.

In London in 1665, for example, many prominent persons did remain despite the plague. The Archbishop of Canterbury remained. The apothecary William Boghurst stayed in town, as did Dr. Hodges, and eight or nine other physicians, some of whom died as a result. Three other physicians agreed to stay specifically to deal with plague victims. Thomas Witherley, Edward Harman, and Thomas Gray became what amounted to the first Medical Officers of Health. They were given an initial payment of 20 pounds and then paid 70 pounds a year in two installments—provided they were still alive when the payments became due (Leasor 1961).

Samuel Pepys, the diarist, makes no reference to clergy leaving. He even mentions in his diary the text for a sermon used by his vicar. Another diarist, John Evelyn, notes on December 3rd his vicar at Deptford, Dr. Robert Bretton, also remained (Wheatley 1897). On December 10, 1665, at Greenwich, however, Evelyn notes that the person preaching was a stranger. Pepys had a dim view of Bretton, whom he refers to as “Britton” and calls him “that conceited fellow.”

There is also no evidence—as is stated by one historian—that the Bishop of London warned priests they would lose their livings if they fled London. No such statements show up in the Bishop’s papers in the Bodleian library in Oxford though there is one letter that refers to a decision to expel a priest—he was sent to Jamaica—who had supported the Puritans.

As for survey research, it assumes that people will do what they say they will do. It does not report actual

behavior. As Dennis Wenger and colleagues found out, people tend to believe the myths about individual behavior in disaster because these myths are so frequently reported by the mass media. However, no matter what people think about disaster, they behave differently. They may think people panic—but they don't. They may think victims will be dazed, confused, and in shock—but they act very rationally. They may think looting is a problem—but it seldom is (Wenger 1980). It is reasonable to assume that these recent surveys may also be flawed. People say they may not report for duty in a pandemic. But when pandemic strikes they may well do so. Studies of actual behavior in disaster support that conclusion.

Meda Miller White interviewed 128 members of various disaster relief organizations in three communities that had been hit by tornadoes:

In our random sampling of 128 members of disaster relief organizations, we found that 77 percent did their jobs first, without serious diversion to family roles. Another five percent were doing rescue work as individuals, so in all 82 percent contributed to disaster relief as the first thing they did. Furthermore, some persons who had first tended to family, or else had done nothing, later came to work. By the end of the first four hours, 89 percent had worked at disaster relief. *Not a single person abandoned ongoing disaster work to be with his family* (White 1962).

Russell Dynes and E. L. Quarantelli found the same thing:

In sum, in examining a sample of 413 persons who held positions in emergency-relevant organizations, *not one abandoned his/her emergency role obligations to opt for familial role obligations....* Consequently... not a glimmer of support exists for the usual predictions about the consequences of role conflict in emergency situations. The empirical cupboard is so bare that there are no anecdotes to support the conventional wisdom (Dynes and Quarantelli 1985).

Both those findings were so overwhelming—neither White nor Quarantelli and Dynes found a single case of role abandonment—that further research seemed pointless. In addition, research by Fritz and Mathewson (1957) and by Scanlon (1991) documented that in emergencies the real problem is not lack of personnel but too many personnel. This research on “convergence” has never been challenged.

However, there are problems. The studies by White and by Dynes and Quarantelli focus on fast onset events. Those involved had to make an immediate decision about what to do. Second, they focused on destructive incidents that happened, then moved on. Those interviewed were for the most part not exposed to danger when they responded. Third, those interviewed belonged to organizations

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Plague Year ...

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Each carried a torch, for when confessing the sick the torch was held between the priest and the sick person, and they kept their distance because it is said the plague is carried by one's breath.

Thus they stayed far apart and they did not spend a long time with the confessions. When giving Communion they extended the Holy Sacrament on the end of a silver rod in order not to touch the sick person, and they gave them Communion and the last rites at the same time in order not to have to return.

When they went out to give the last rites they didn't do it just for one or two persons. Instead people went to the vicarage and wrote down the name of the street and of the house, and since there were so many sick at that time, the priests went around in turn to visit the sick and to give out food to everyone.

In the parish of St. Mary's, many times when they went out at the height of the plague they gave Communion to seventy or eighty persons before returning home. Thus the poor monk was exhausted when he returned to the church from such a long walk and from having climbed so many stairs, for most of the sick were up in attics in order for them not to have contact with anyone save the person nursing them.

When giving out Communion, no priest came along, just the monk who carried the remonstrance and the sacristan who carried the torch.

How plague continued in Barcelona in June and July

The provision of food during the plague was badly organized, both in the pesthouse and in the city. Many died in the pesthouse for lack of food who would not have died had things been better organized, and there were many who after arriving in the pesthouse died without having been seen by a doctor or surgeon.

And all the doctors and surgeons in the pesthouse were very young fellows without much experience, because it was so hard to find doctors willing to go there, especially after some of the first ones died. In the city there were a few good doctors and some came from Girona and Olot who had some experience with the disease, and the city gave 10 pounds to each of them, surgeons as well as physicians.

Of the great suffering the plague caused

The sick had to find someone, man or woman, who would nurse them for pay. These persons received 12 or 14 *reals*, along with expenses for each day they took care of the sick and they also arranged for payment of their quarantine after the sick person was either cured or dead, for which they charged 18 or 20 pounds and some even more ... The demand for nurses was so great that when they left one house they went to another, and even then they were hard to find.

Role Abandonment ...

(Continued from page eleven)

that either have or see themselves as having clear-cut emergency roles: persons in police and fire departments, civil defense, hospitals, utilities, the mass media, and voluntary organizations such as the Red Cross. Only one religious organization was included—the Salvation Army, which prides itself on emergency response.

It is possible that a pandemic would raise different problems. It builds up over time. It gives those involved time to ponder. It will likely be a highly contagious disease. Anyone in contact with victims has every reason to believe he or she could become a victim, too. Many could think quite rationally that helping someone could be fatal. In the past, many of those who decided to evacuate were in positions where their emergency responsibilities, if any, were less clearly defined. Does a priest have to keep preaching when his flock may be at risk if they gather to hear him? There is no easy answer.

It is certainly true that people have concerns about family. Police in Edmonton after the 1987 tornado radioed colleagues and asked them to check on their families. Persons who are with their families when disaster strikes may try to see that their families are safe before reporting to work. And there is some evidence people are more likely to respond if they see their role as important. That in fact did show up in both of the recent surveys.

So What Are We to Believe?

WELL, THE GROWING LITERATURE on the 1918-20 influenza pandemic shows no evidence that medical personnel shirked their responsibilities. Our review of the literature—which is ongoing—has turned up reports of medical and other emergency personnel becoming sick and in some cases dying. That was sufficient to lead to staffing problems. But we have found no evidence that healthy persons failed to show up for work.

Nevertheless, there is no specific research on this topic—no study of what actually happened when people with emergency responsibilities face a pandemic. In short, as is often the case, there is need for further research. On balance, however, it would appear that the survey data is misleading. No matter what people say when asked, when a crisis actually strikes—even a pandemic—emergency personnel, including medical personnel, will respond if they are well enough to do so. Pandemic influenza will definitely strike medical personnel and it will lead to staff shortages. But, based on the evidence available, those shortages will not result because of an unwillingness of emergency personnel to meet emergency responsibilities.

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