



REVIEW

Piracy on the High Seas—Threats to Travelers' Health

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Background. Piracy has been threatening international sea trade and creating risk for crews and passengers worldwide. The problem is largely confined to the Somalia coast, West Africa, South America, and Southeast Asia. The targets are merchant ships, cruising yachts, and passenger ships with several thousand people on board. Such attacks can result in loss of lives, short- and long-term health problems, and can further be complicated by the consequences of hostage situations on shore. The purpose of this article is to present the problem of piracy, its relevance to the field of travel medicine, and help travel medicine practitioners to deal with its specifics before, during, and after attack.

Methods. Comprehensive literature research was done and published data from 2002 until 2012 from the International Chamber of Commerce specialized division—International Maritime Bureau (IMB)—on 3,806 attacks and 7,635 incidents involving human victims are analyzed. Available occupational health data in merchant marine and epidemiological data acquired on board cruise ships were used to estimate the health risks.

Results. From 2002 until 2012, 3,806 ships were attacked including 82 yachts and 13 passenger ships. A number of reported piracy attacks worldwide continued to threaten security and lives on sea. In 2012, 297 incidents of piracy and armed robbery were reported, a total of 585 crew members were taken hostage, 26 kidnapped, and 6 killed as a direct result of the incident.¹

Conclusion. The risk of being injured or killed by pirates on board cruise ships is actually very low. Piracy on the world's seas is in decline and remains a reasonably localized issue. While this improvement is a result of continued efforts of international naval forces, that protection is only partial and fails to suppress piracy completely. Piracy still presents significant threat to international travel, and future involvement of travel medicine practitioners in providing advice to travelers to piracy regions or victims of piracy is expected.

In the last decade, the numerous successful attacks with millions of dollars taken as ransom has put piracy around Somalia in the headlines, becoming an internationally covered phenomenon and a growing threat to international travel because up to 90% of international trade is traveling by ship at some point. Annually, 6.8 billion tons of goods are moved by sea, making the global trade worth 7.4 trillion USD. The problem is largely confined to the Somalia coast, West Africa, South America, and Southeast Asia with the total cost to shipping industry of more than 10 billion dollars (Idnani N, personal communication, September 2011).¹ In recent years nearly 5,000 seafarers, tourists, and yachtsman have been hijacked and detained for months,

often in appalling conditions, while thousands of others have been the victims of pirate attacks.² These have been serious and violent attacks performed by organized crime groups, their targets being merchant ships, cruise ships, and cruising yachts. Comprehensive literature research was done and published data from 2002 until 2012 from the International Chamber of Commerce specialized division—International Maritime Bureau (IMB)—were analyzed.^{1,3–5} Available occupational health data in merchant marine and epidemiological data acquired on board cruise ships were used to estimate the health risks.^{6–8} The purpose of this article is to present the problem of piracy, its relevance to the field of travel medicine, and help travel medicine practitioners to deal with its specifics: before, during, and after attack.

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What Actually Is Piracy?

Legally, “Piracy” is any illegal act of violence or detention, or any act of depredation, committed for

private ends by the crew or the passengers of a private ship or a private aircraft, and directed on the high seas, against another ship, or against persons or property on board such ship under the terms stated in the International Maritime Organization's definition.⁹ The history of piracy dates back more than 3,000 years. Starting in the 16th century, piracy began gaining in popularity; sometimes governments gave a license to a private sailor to attack enemy ships on behalf of a specific king—Privateer. However, piracy has occurred in the 20th century in traditional places like the South China Sea, and the practice of hijacking ships has developed into a new form of piracy that we are witnessing today.¹⁰

What Is the Magnitude of the Problem?

From 2002 until today IMB registered 3,806 attacks and 7,635 incidents involving human victims.^{1,3-5} To this number, a large number of unreported incidents should be added. The number of attacks has been on continuous rise: from 370 in year 2002 to 493 in 2011.^{1,3-5} With the development of piracy in Somalia and practice of taking hostages, the number of incidents involving human victims sharply increased from 433 in year 2007 to 1,011 in 2008, with a peak in 2010 when 1,270 cases of violence against crew and passengers were registered.¹ In 2011, the number of victims started to fall (895, Table 1). Out of 297 attacks reported to the IMB in 2012, the majority took place off Somalia, on the east coast and in the Gulf of Guinea on the west coast of Africa (Figure 1). In 2012, 28 vessels were hijacked, 174 vessels boarded, 28 vessels fired upon, and 67 vessels reported attempted attacks. Globally, a total of 585 crew members were taken hostage, 26 kidnapped, and 6 killed as a direct result of the incident.¹ A total of 75 incidents including 14 hijackings are attributed to Somali pirates.¹ Gulf of Guinea, with 58 incidents recorded, including 10 hijackings and 207 crew members taken hostage has been seeing the rise in piracy. Although only 27 attacks were reported in Nigeria, it is one of the most dangerous areas where pirates attacked, hijacked, and robbed vessels including kidnapping crews along the coast, rivers, anchorages, ports, and surrounding waters up to 120 nm from the coast.^{1,3} In Southeast Asia and the Indian Subcontinent, Indonesia has seen a rise in armed robbery for the third consecutive year with 81 attacks in 2012 compared with 46 in 2011 and 40 in 2010.¹ Pirates are active in the Malacca Straits, Singapore Straits, South China Sea, and Ecuador, too.¹

Why Do They Do It?

Conditions currently prevailing in Somalia provided a fertile breeding ground for the establishment of modern-day Somali piracy.¹¹ In 1991 Somalia fell into chaos and lawlessness while the unemployment rate rose to over 90%.^{12,13} It is well known that modern Somali piracy originated from the defensive tactics of fishermen

against overfishing of the developed nations which were taking advantage of any kind of government control of the local waters; Somali fishermen would stop foreign fishing vessels and demand reparations.¹¹ The reasons from two decades ago have vanished and nowadays, the only reason for piracy is the ransom money, enabling pirates to earn 33,000 to 79,000 USD/year, compared with the next best legal alternative of 500 USD/year (Idnani N, personal communication, September 2011). The same aim can be found in West African piracy where the cargo, usually gasoil, can be stolen too. In other parts of the world, the aim can be money or belongings of the crew, cargo, or even the whole ship that can be sold on the black market under a new name and forged documents.

One of the greatest worries is the possibility of linking the piracy with terrorism.¹⁴ Hijacking of the cruise ship *MS Achille Lauro* in 1985 is certainly the most known case. It was a clear act of piracy connected with terrorism. Several other well-known attacks on ships also had a political background.¹⁵ However, many experts say that there is little hard evidence to substantiate such a link in Somalia.¹⁶

How Do They Do It?

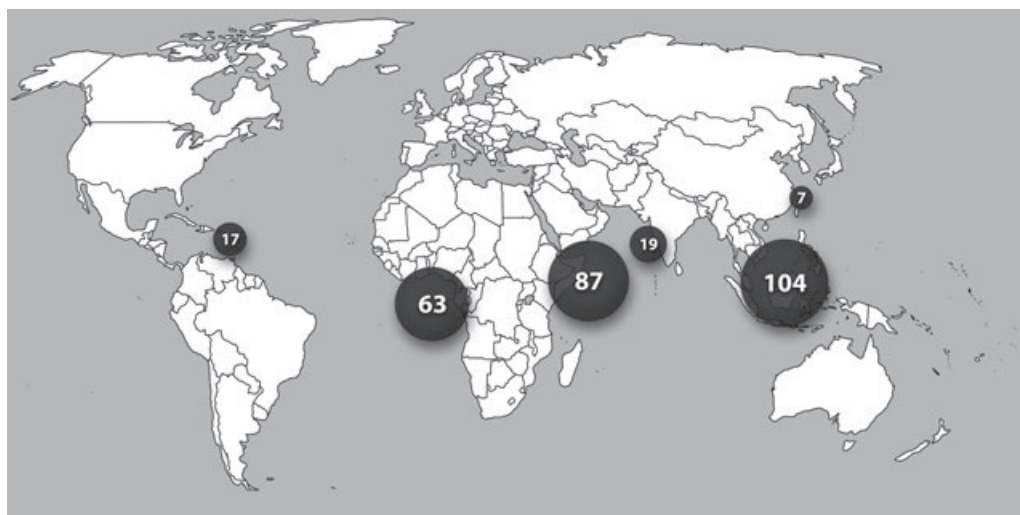
Modern pirates operate in different ways, depending on the geographic location. In the Far East, piracy is often controlled by organized crime networks in the ports, while in Somalia pirates simply patrol within an area, wait for the opportunity, and attempt to board.³ They are well equipped with satellite phones and global positioning system (GPS), operating in well organized groups and thanks to the use of "mother ships," usually pirated fishing vessels, range far into the Indian Ocean for longer periods, even through the monsoon season.¹⁷ In a typical pirate attack, two or more small high speed open boats deploy from a "mother ship," often approaching from either quarter of the intended target ship, firing AK47s or rocket propelled grenades (RPG) to intimidate the crew. Ships slower than theirs are usually approached from the stern side and then aluminum ladders are used to reach the deck.¹⁸ For faster ships that can outrun them, such as cruise ships, they use different tactics: one boat attacks from the bow side, forcing the ship to make evasive maneuvers such as shortening the trajectory of the pirate boat coming from the opposite stern side, which allows pirates to reach the ship and eventually climb the deck.

Are the Cruise Ships in Danger?

Piracy is present in the areas where cruise ships sail and such attacks are well documented as they always raise a lot of media attention.^{4,5,15} For the cruise industry with its 14 million passengers a year, a response to 9/11 came in the form of tight legislation that became effective in

Table 1 Attacks and incidents involving human victims, 2002 to 2012^{1,3-5}

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Total number of attacks	370	445	329	276	239	263	293	410	445	439	297
Attacks involving violence to crew	327	644	401	509	317	433	1,011	1,167	1,270	895	662
Taken hostage	191	359	148	440	188	292	889	1,050	1,174	802	585
Kidnapped/ransom	—	—	86	13	77	63	42	12	27	10	26

**Figure 1** Total incidents per region of the world in 2012.¹

the summer of 2004, both on ships and in ports.¹⁹ Drills on procedures in the case of piracy attack are also part of life on board and some companies are embarking armed guards (PCASPs) while passing dangerous areas. In fact, piracy attacks are rarely directed toward cruise ships. The cruise ship might seem a more attractive target but it is simply too difficult to attack. First of all it is often too fast; it usually sails at over 16 knots and has a high freeboard, which makes it difficult for pirates to climb on the deck. There is also a very large crew with trained security guards on board. Considering that just a handful of pirates participate in an attack, it would be difficult to establish control over a large crowd. From 2002 until 2012, among 3,806 ships attacked only 13 were passenger ships. In 2011 only one attack on a passenger ship was registered, and none in 2012, which proves that cruise ships are still the safest places when out at sea.^{1,5}

What About Sailing Yachts?

Crews of the sailing yachts are certainly in much higher danger than the crews on merchant ships or particularly the passengers on cruise ships. From 2002 until 2012, 82 yachts were attacked.^{1,5} They are practically defenseless and cannot use even the simplest procedures of passive defense. It would take a skiff at 25 knots about 3 minutes from the time it spotted the yacht to the time it gets alongside it. To prevent the boarding, one would need

to be almost alongside a naval warship. The problem of unsafe sailing is not restricted to the Indian Ocean alone. Even the very popular Caribbean and regions like the Malacca Straits, the coast of Indonesia, and the Philippines are areas where attacks on tourist sailing boats are documented.^{4,17,20} Once taken hostage, another set of problems arises for the recreational sailors. While most ship owners work diligently to secure the release of their seafarers, the sailors from private yachts may not have an insurance policy or other means of producing a ransom. As a result, they are held longer than the average hostage while money for their release is raised by family and friends.²¹

Is It the Real Risk for Travelers?

Seafaring has always been considered a dangerous occupation with standardized mortality rates higher than occupations on shore.^{22,23} The mortality rate for accidents that occurred at work on board is 53 per 100,000 seafarers per year, while homicide rates are the highest (3.7 per 100,000 seafarers per year) in Asia, where a high piracy problem is still present.⁶ Taken globally, concerning the piracy violence rates, the risk for a merchant seafarer to be killed on board by pirates is 2.05 per 100,000 seafarers per year.⁷ Cruise ships are regarded safe places to spend a vacation on and good epidemiological data are available on risks that can be encountered on board.⁸ Analyzing those data and

Table 2 Cruise passengers' risk rates per 100,000 passenger per year^{1,8}

Visit doctor	76,208.51
Injured on board from other causes	5,260.94
Piracy violence (total)	14.94
Hostage	13.48
Injured by pirates	0.87
Killed/missing	0.20

comparing them with the risks on merchant ships, it is clearly shown that the risk of being injured or killed by pirates is actually very low (Table 2).

What Are the Health Consequences of the Piracy Attack?

They range from violent death and physical injuries to the long-term psychological trauma, much of which depends on the aim of the attack. If the aim were to siege the whole ship/cargo, then the whole crew could easily be killed or if lucky, left abandoned at sea. If the aim were to seize the cargo and the crew was passive and cooperative, then the whole event could pass without serious harm. In recent years, pirates' aim has been to get the ransom by holding the ship and/or crew as hostages on board. As of December 31, 2012 Somali pirates held eight vessels for ransom with 104 crew members on board. In addition, 23 kidnapped crew members are being held on land.¹ In 2011, Somali pirates held 1,206 people hostage. There were 26 hostages who had been held for more than 2 years and 123 hostages who had been held for more than 1 year as of May 31, 2012.²¹ The risk of being subjected to violent crimes increases with prolonged periods of captivity, including increased risk of disease and malnutrition.²¹ Because of a lack of appropriate diet and limited access to medication, hostages are also subjected to the adverse progression of poorly managed chronic conditions including heart disease, hypertension, and diabetes.²⁴

According to publicly available reports 57% of hostages faced mistreatment at the hands of pirates; 3,863 seafarers were assaulted by pirates during the initial stages of the attacks by firing weapons; 35 hostages died in 2011: 8 were killed by pirates during the attack or after being taken captive, 8 died from disease or malnutrition caused by lack of access to adequate food, water, and medical aid, and 19 died during rescue efforts by naval vessels or attempting to escape—the majority of them were being used as human shields by the pirates.²¹ At least three seafarers from the 23 reporting vessels died after release as a direct result of their mistreatment during captivity.²¹ Pirates inflict psychological abuse along with physical mistreatment as they seek to terrorize the hostages, their families, and the ship owners in order to speed up the ransom negotiations. While there is no significant body of research that tracks the impact of piracy on seafarers, existing research on violent crimes strongly

suggests that some of the people exposed to piracy will have lasting problems.^{25–28} Other studies report that in the hostage situation not only the person being captured as a hostage is the victim but the whole family as well which has similar psychological problems.²⁹ Torture may be involved and is associated with high levels of posttraumatic stress disorder (PTSD), that includes reactions ranging from emotional—like fear, anxiety, or flashbacks that impede victims' capacity to function normally—to physical ones—like pains, sweating, or heart palpitations.^{30–36} According to the study on the Norwegian crew who were held hostage in Libya in 1984 for 67 days and were subjected to psychological and physical torture, six of them suffered from clear-cut PTSD and one more seaman developed the disorder 2 months later. In spite of comprehensive treatment, the same seven sailors, or 54% of the crew, still suffered from PTSD 6 months after their release.³⁷ Recently, a short study on the health consequences of a piracy attack among 105 seafarers from four ships that were victims of a piracy attack and held captive between 3 to 9 months was run in India. Thorough medical examination including psychological assessment, which was conducted on the victims, showed that most of the victims had health consequences directly related to the duration of trauma: 27% complained of musculoskeletal problems, 40% of psychological disturbances including PTSD, and 3% of other health problems (Idnani N, personal communication, September 2011).

Do We Have Any Defense Against Pirates?

Owing to the international character of sea travel and vast areas of international waters, it was necessary to establish an international body that would coordinate the global fight against piracy. The IMB—specialized division of the International Chamber of Commerce—was founded in 1981. IMB is a nonprofit organization and their Piracy Reporting Centre in Kuala Lumpur runs a satellite warning system for ships at sea, providing assistance free of charge.^{3,5} On February 1, 2009, Maritime Security Centre—Horn of Africa (MSCHOA) established the Internationally Recommended Transit Corridor with anti-piracy patrols of Coalition Naval Forces securing the passage of ships through that globally important sea passage.³

Several organizations developed their best practice guidelines for defending the ships from piracy and the majority of big shipping companies use those as a model.³⁸ If attacked by pirates, merchant ships activate their Emergency Communication Plan according to the procedure set up by their company. If they do not have such a plan, they usually inform their shipping company or IMB which alerts the nearest law enforcement agency. In the majority of cases, if unable to board within 30 to 45 minutes, pirates will give up, so the standard procedure for all ships is to speed up the ship over 15 knots and

start evasive maneuvers. Further procedure depends on whether the ship has armed guards (PCASPs) on board and the terms of their engagement. If pirates close in on the ship and try to set grappling hooks or ladders, fire pumps could be used, and if that defense fails, crew will muster in “citadel”—part of the ship where they can securely lock themselves, usually in the engine room, and wait for the rescue. On the cruise ships, passengers are instructed to move away from the windows and decks and stay in designated places inside the ship. It is obvious that yachtsmen have no such possibilities and practically none of those measures, except sending an emergency call.

If boarded by pirates, there is only one rule: offer no resistance.^{20,38} If one fires a weapon, then the weight of the return fire is likely to be superior and devastating. Once on the bridge, the pirates are likely to be aggressive, highly agitated, and possibly under the influence of drugs (including *khat*, an amphetamine-like stimulant), so remaining calm and cooperating fully will greatly reduce the risk of harm.^{20,38}

What Should We Advise Our Clients Before They Go Out on the Sea?

Basically, there are three groups of clients that could need such advice: tourists on cruise ships, yachtsmen, and seamen. They can ask for advice individually or the advice could be sought from a shipping company.

The health management plans should answer the following questions:

- How to act proactively—preventive procedures adequate for the wider area
- How to respond in the case of injury or sickness in a hostage situation
- How to manage hostages after release
- How to manage hostages' families

When recommending a plan for corporate clients, travel medicine practitioners should take into account the latest version of the Best Management Practices that are now easily accessible on designated web pages.³⁸ Yachtsmen should adopt the International Sailing Federation ISAF Danger of Piracy—Guidelines for Yachts.²⁰ Clients who accept to follow these guidelines will adopt appropriate procedures and that leaves the practitioner with the advice on health care procedures only. Once in every 2 years seamen are required to pass an examination to renew their seaman's license, so it is a good opportunity to provide them with adequate advice and care.³⁹ Yachtsmen do not have to pass such an exam, so it is of great importance to provide advice before going out to sea.⁴⁰ On board every ship there is a medicine chest but seamen cannot influence its contents, so the decision to take additional supply of drugs to be used in case of extended hostage situations is in the hands of the company. It is important to understand that although international regulations are

requesting all ships to have a medicine chest on board, its contents and amount of medicines are not strictly regulated but only advised.^{41,42} Yachtsmen take much smaller medical kits on their boats, so they should be advised to supply their boats with additional amounts of medicines. Contents of their medical kits are not internationally regulated. Cruise ship passengers should also know that although a doctor will be present on board, they should have enough of the medicines they regularly take.

Travel medicine practitioners will recommend standard recommended prophylaxis for the area, but because of the wide range of attacks they have to cover a wider area, as hostages can be taken to an area that the ship has not planned to visit, including inland. The risks for hostages held on land are even greater than those aboard vessels.²¹ They become exposed to the long-term risk of environmental exposure, including infectious diseases. For instance, while the yellow fever vaccination is not necessary in Yemen where the ship is heading, it could become necessary if one is taken to Somalia for prolonged time.⁴³ On the ships, the risk of acquiring hepatitis A is minimal or nonexistent, but being taken inland it becomes real.⁴³ Additional measures like taking water disinfection pills, can be suggested too. Seafarers and cruise passengers spend only a short time in the ports and they sleep in their acclimatized cabins, so “stand-by treatment” for malaria will be sufficient for them, but being held as hostage, the short-term risk is changed to long-term risk. Malaria is endemic in many parts of Somalia. The World Health Organization (WHO) is estimating 600,000 cases in 2008, 95% being from *Plasmodium falciparum*.⁴⁴ In hostage situations, it is not expected that chemoprophylaxis will be available. Even if eventually allowed to use available antimalarial drugs from the ship's medical chest, amounts carried on board will not last long.⁴¹ Hostage situations can mean that the close contact and diminished immunological defenses due to exhaustion can create risk for diseases such as tuberculosis (TB). Because of the inadequate public health system, there is limited information regarding TB prevalence among Somalis. More than 50% of the population is estimated to be infected with *Mycobacterium tuberculosis*.⁴⁵ Interviews with seafarers released after an attack and hostage situation suggest that those who were briefed in advance were able to cope better than those who were not. Information on how to behave appears to have played a large part in initial responses and aided their ability to manage the situation.² Pre-incident preparation is paramount, so advice/training should include both psychological and physical aspects.

What If the Worst Happens, Can We Help Somehow?

Not much, but travel medicine practitioners could be asked to provide advice to the shipping company, manning agency, or government. Seafarers on board

merchant ships and cruise passengers are in a far better position. Merchant seamen can use the available medical chest on board and at least one officer is a medically (paramedic level) trained person.⁴⁶ They can also use food from ship storage, have water on board, and as there is a cook on board, there is a lower risk of food- and water-transmitted diseases. Also, the environmental risk does not change much. If captivity is prolonged, hostages will experience a general lack of usual hygiene practices. For example, soap, toothpaste, and other toiletries may have either been stolen or run out while the toilet and domestic water supply is likely to have been interrupted. The same could happen with the medical chest that could be taken, emptied, or made unavailable. One source of health care available on board is the so-called *radio medico* (tele-medical advice) where one can communicate with a doctor on-shore who provides advice.⁴⁷ That could also be banned by pirates. Also the medically trained person could become unavailable, injured, taken on-shore, or released. If taken on-shore there will be no availability of *radio medico* advice and no medicines, while the medically trained person could become unavailable, injured, retained on ship, or released. It would become a difficult situation to help someone if medical need arises and whatever is done would have to be negotiated. Pirates who use hostages as “bargaining chips” can also use their health condition to reach their gains. However, as their aim is for the same reason to keep them alive, several options can be at least theoretically used. In the case of need, a trained medical person or medical facility that is locally available could be used. Also, if present, any available medically trained person among hostages could be used. There is a very slight chance that pirates will allow some of the hostages to use *radio medico* advice because of the risk of locating them, or the need for total control of the hostages. One option could be to send needed medical supplies but that has to be negotiated too. To send medically trained person is just the theoretical option. Evacuation of the injured/sick hostage is, although the best, a very difficult option to achieve, as that option would put pirates at risk.

What After the Return?

Initial medical screening including quarantine procedures is usually done immediately after the release of the hostages, especially if transfer is made to the navy ship, but if not, it should be done at least at the airport on arrival. A careful medical screening and extensive intake history and physical examination are essential for the rapid identification of any significant medical conditions and to limit the spread of communicable diseases.²⁴

Cruise companies and some shipping companies will have plans set up for receiving hostages, but a large number will be left with them after the release. It is possible that a travel medicine practitioner could be the first medical person who the released hostage would

contact, mainly to handle physical health problems on return, or he/she could be asked for guidance by the shipping company on medical needs of the released hostages. The travel medicine practitioner is the best suited clinician to assess the travel history including destination of hostage, potential exposures, and preventive measures to be taken. Blood samples should be taken at least in all febrile or febrile-during-hostage patients to promptly diagnose possible infectious diseases and TB testing may be considered. Also, other laboratory and technical evaluations are indicated under the circumstances (eg, diarrhea, eosinophilia, skin lesions). Other infectious diseases that have had recent outbreaks, like cholera, measles, Rift Valley fever, poliomyelitis, dengue, or visceral leishmaniasis in Somalia, should be considered.²⁴

The travel medicine practitioner has to be aware not only of infectious or environmental risks that had been encountered but also the psychological needs. A small proportion of those affected may develop PTSD, which will require professional help.⁴⁸ If advising the shipping company, the travel medicine practitioner should advise that the most important thing on release is to create a healing social environment immediately after the release (Nikolić N, personal communication, September 2011). It should be a secure, private, and comfortable setting, like an airport lounge, in which families could rejoin but be isolated from external groups like journalists, and later be escorted home. Such an environment encourages strong cohesiveness within the victim group, promotes abreaction, and provides opportunity for rest and replenishment (Nikolić N, personal communication, September 2011). If the travel medicine practitioner is part of the “welcoming team,” he should be trained in at least the psychological first aid procedures, but should not embark in anything more complex than that. Counseling or other forms of psychological intervention techniques are not considered appropriate at this time. The aim of such psychological interventions is to restore a sense of power to the victims, to reduce the feelings of isolation and helplessness, and to reduce the feeling of being dominated by the terrorists.²

It must be emphasized that coordinated planning in advance is needed to deal optimally with these physical, psychological, and social problems in order to help prevent or at least rapidly identify problems caused by the incident.

The Way Forward?

Piracy on the world’s seas has reached a 5-year low, with 297 ships attacked compared with 439 in 2011; 585 crew members have been taken hostage compared with 802 in 2011 and 1,181 in 2010 (Figure 2).¹ This improvement is no doubt the result of the continued efforts of international naval forces and increased presence of PCASPs on board that caused the huge reduction in Somali piracy. This progress could easily be reversed if

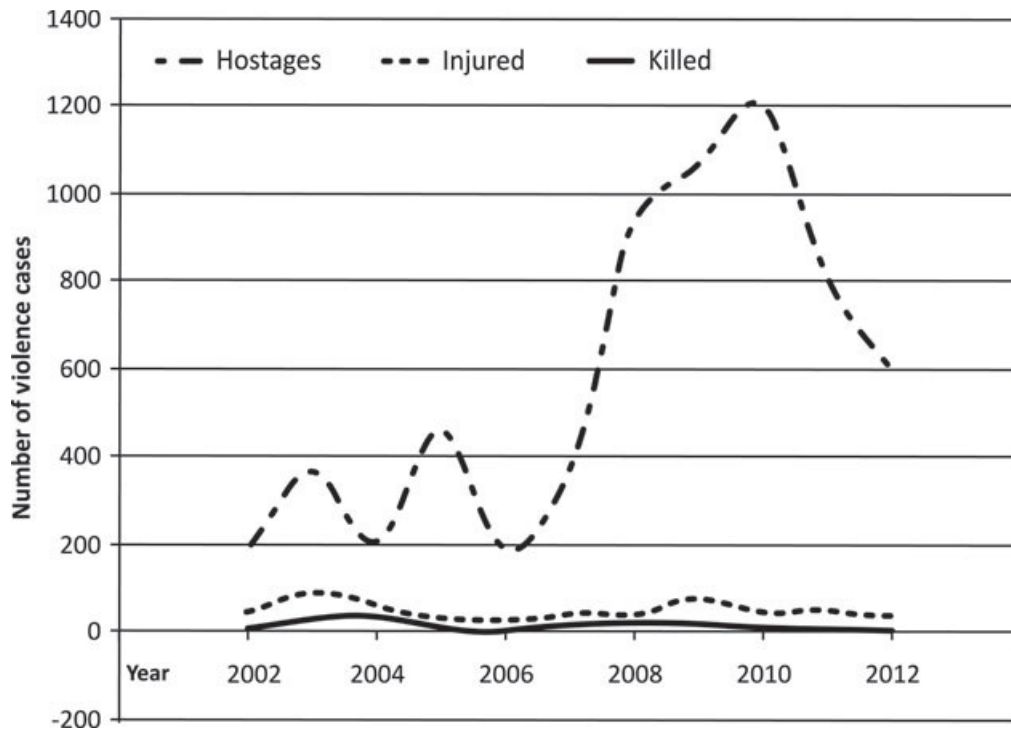


Figure 2 Violence in piracy attacks, 2002 to 2012.^{1,3-5}

naval vessels were withdrawn from the area as the threat and capability of heavily armed Somali pirates remains strong. Disproportionate increases have been observed in other parts of the world particularly in Indonesia and the Gulf of Guinea where 58 incidents were reported in 2012 compared with 25 in 2011. Unacceptable levels of violence have been used against crew members and guns were reported in at least 37 of the attacks.^{3,1} In 2012 there were six deaths registered by IMB compared with eight in 2011 as a direct consequence of attack. Publicly available reports on pirate engagements with security suggest that pirates do not automatically retreat when they are fired upon, but instead engage armed guards in fire fights that put the crews and passengers at greater risk of being shot.²¹

Although piracy can be devastating for ship owners and particularly the crews, it is still a reasonably localized issue not affecting a large group of leisure travelers. Unfortunately, piracy remains a viable “business model” and will surge again if the causes of piracy such as instability, lawlessness, and ineffective governance are not addressed quickly. Piracy and the responsibility of the criminal clans can only be reduced by state control and political stability. No matter how significant is the military presence, in the reality of increased violence, the protection is only partial and is failing to deter, disrupt, or suppress piracy completely. In the future, we can expect further involvement of travel medicine practitioners in providing advice to endangered travelers or victims of piracy.

Declaration of Interests

Both authors state that they have no conflicts of interest to declare.

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This is a ship leaving the harbor of La Habana, Cuba. Although this picture refers to the Review article by Nebojša Nikolić and Eduard Missoni (see pages 313–321), “Piracy on the high seas” is largely confined to the Somalian coast, West Africa, South America and South East Asia. *Photo credit: Eric Caumes*