



# Preparing for the Next Public Health Crisis

Establishing a Public Health Response Plan to Address  
Threats Such as the Gulf Oil Disaster

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# Introduction and summary

We've all seen pictures of the dreadful and continuing aftermath of the explosion on the Deepwater Horizon oil well in the Gulf of Mexico. The environmental cleanup and the economic consequences of this will last far into the future, and it's hard to imagine that the time will come when fumes from oil, chemicals, and burning no longer pollute the air, oceans aren't covered with sheets of oil, beaches aren't stained with tar, and marshes aren't clogged with residues. But with hard work that will eventually be the case. At that point the Unified Command—which was established under U.S. Coast Guard leadership to manage the response to this disaster—will fold, the cleanup workers will go home, and the raft of workers brought in from diverse agencies as part of the emergency response will be pulled back to deal with other more urgent tasks.

But health threats from the oil spill may linger unseen, perhaps for more than a generation. And we will not be fully prepared to address the public health problems that arise in the future unless there is an effective and coordinated handover of responsibilities for protecting public health from the emergency response agencies to agencies with the capability and capacity for long-term monitoring and management. Federal agencies have been pulled in as needed in the gulf spill response, but it's not clear that the Health and Human Services response has been synchronized from the top to ensure effective delivery and coordination.

In short, the spill reiterates why we need to better manage the short- and long-term responses required to address the public health threats such disasters pose whether they are manmade or due to natural causes.

No systematic long-term monitoring and oversight was put in place with the Exxon Valdez spill in 1989, and now we wonder what we missed. Several studies following the Prestige oil spill off the coast of Spain in 2002 indicate that some respiratory problems in cleanup workers didn't show up until years after the spill.<sup>1</sup> Additionally, evidence suggests DNA damage occurred to these workers that could lead to cancers and alterations in hormone status.<sup>2</sup>

The responsibility for both the immediate and long-term responses can only be led by the administration from the highest levels. This is not an appropriate role for corporations, which cannot be trusted to put the long-term interests and needs of the affected communities ahead of their business concerns. The BP oil spill is a clear example of why we cannot allow the very corporation that caused the problem in the first place to be trusted with monitoring its potential health effects. The protection of public health has always been a key responsibility of the federal government, and we have previously called for the federal government to takeover this responsibility with respect to the gulf oil spill.<sup>3</sup>

This is not the first time the nation has faced such a crisis, and it won't be the last. We have faced public health threats from the World Trade Center attack on 9/11, Hurricane Katrina, and the Exxon Valdez oil spill, and from infectious agents such as SARS, Avian flu, and H1N1 flu that fortunately did not reach crisis proportions but could have. The responses, while effective, have not been always been well coordinated. The Government Accountability Office in 2008 identified important lessons from the WTC response that could help develop responder health programs in the event of a future disaster, but the GAO recommendations have not been fully addressed.<sup>4</sup>

The gulf oil crisis reminds us that it is essential to have a response plan that is activated early and can continue into the future for as long as needed. We need to establish an architecture complete with clear lines of responsibilities and acknowledged trigger points for action. It should facilitate the involvement of the appropriate federal health agencies in addressing a potential public health emergency—from watchful waiting to emergency response to long-term monitoring and management.

We do not need a new entity to put this system in place. Government has the expertise among the many HHS agencies to handle any given public health emergency, but different players may be called on at different times depending on the event. This transfer of responsibilities will occur mostly between HHS agencies, but it may also involve nonhealth agencies as well. Obviously this is now the case with the gulf oil crisis, but it could occur with other incidents as well. With a large-scale infectious agent attack, for example, medication may need to be delivered to the homes of many affected Americans, and it has been suggested that the U.S. Postal Service could fill this role since they know how to get parcels to nearly every U.S. home.

The gulf oil crisis reminds us that it is essential to have a response plan that is activated early and can continue into the future for as long as needed.

We propose that a single, high-ranking HHS official be designated to launch and oversee the coordinated response plan implemented whenever a situation arises that can threaten public health. We recommend this leadership role go to the assistant secretary for health, or ASH. The ASH should have responsibility for determining when and how the response to a public health threat moves into the initial emergency phase and when it transitions to a long-term monitoring and management phase. The ASH would have responsibility for ensuring—in conjunction with other federal, state, and local agencies, academics, and the private sector—that needed services are delivered and information is collected, and that data, information, and resources are transferred to the responsible HHS agency or agencies.

This approach does not require new agencies or significant new authorities. But it will require the following:

- Clarification of roles and responsibilities of all agencies and offices involved
- Robust surveillance systems with standardized data that can analyze information collected from a variety of sources
- Sufficient financial resources and the appropriate workforce to develop capacity and maintain long-term monitoring systems
- Mechanisms in place to address ongoing medical needs for individuals affected by the crisis
- A financial infrastructure to assure funding is available for immediate and longer-term health needs

This paper looks at the issues that must be addressed in the immediate (emergency) response situation to facilitate the eventual handover to a long-term monitoring and management system, what that system should incorporate, how to trigger the emergency response and the long-term monitoring phase, and how the different agencies should work together in a seamless fashion. But first, it examines how our current system lacks an overall plan to maximize the contribution of all available agencies and organize the strongest possible public health response.

# The public health response to the gulf spill

The gulf crisis has some potentially serious immediate health concerns. But the long-term health effects may be even more problematic. These include respiratory problems, cancers and endocrine disorders caused by direct contact with the crude oil and longer-term exposure to the dispersants used to clean it up, and mental health problems such as depression and posttraumatic stress disorder caused by disruptions of people's lives and livelihoods. Many of these effects may take years or even decades to appear. Moreover, they will only be recognized and properly linked to the gulf oil spill if proper tracking and monitoring is put in place—beginning now, to provide the baseline data—and continued into the future.

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## Federal response to the gulf oil spill to date

It's important to note that the gulf oil spill—which was first set off by an explosion on April 20, followed by a second on April 22—was not immediately recognized as a major disaster. The response was therefore initially small and then ramped up as the spill's full extent became apparent.

The federal government established a Unified Command on April 25 to coordinate the agencies initially required to address the developing crisis and manage the response. At that time the primary focus was on capping the oil well and protecting the environment. The unified command links the organizations responding to the incident and provides a forum for those organizations to make consensus decisions.<sup>5</sup> The Coast Guard leads the command, which also includes BP, Transocean, the drilling contractor—and the following government agencies (see appendix for more information):

- National Oceanic and Atmospheric Administration
- Department of Defense (primarily the National Guard)
- U.S. Geological Survey
- Environmental Protection Agency

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- Fisheries and Wildlife Service
- Centers for Disease Control and Prevention
- Department of Homeland Security
- National Park Service
- Occupational Safety and Health Administration
- Minerals Management Service
- Department of Interior
- Department of State

Health concerns were initially focused on the cleanup workers' training and safety, so the only health agency involved was the Centers for Disease Control as home of the National Institute for Occupational Safety and Health, or NIOSH.

But the Deepwater Horizon spill soon became more than an environmental disaster. Human health effects needed to be monitored with high concentrations of noxious fumes from crude oils, the use of unprecedented amounts of dispersants, and plumes of smoke from the burning of surface oil. It soon became clear that we needed to protect the health of the cleanup workers as well as the people living in the affected communities.

HHS established a mobile medical unit in Venice, Louisiana on May 31 to care for individuals with health issues due to the oil crisis. The National Disaster Medical Service in coordination with the Louisiana Department of Health and Hospitals and a Medical Strike Team provided triage and basic health care for responders and residents affected by the cleanup.

Subsequently, other agencies also part of HHS—the Food and Drug Administration, CDC's Agency for Toxic Substances and Disease Registry, and the Center for Mental Health Services of the Substance Abuse and Mental Health Services Administration, or SAMHSA—arrived to help, but they were not considered part of the official unified command (see appendix).

There was a risk, for example, that the food supply would become contaminated, so the FDA began working with the NOAA, the National Marine Fisheries Service, the EPA, other federal agencies, and several state authorities in regions affected by the spill to monitor the developing situation and its potential impact on seafood harvested from the area. A number of fishing and oyster harvesting areas have been closed as a result of this effort.

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The federal government also established other groups to identify the proper public health response. On June 1, 2010, the National Institute of Environmental Health Sciences, or NIEHS, in cooperation with the Coast Guard and BP facilitated a federal multiagency public health assessment of the oil spill responders in the Louisiana area to determine whether they needed any additional medical support or additional mobile medical units were required. The team included the assistant secretary for preparedness and response and the director of NIOSH as well as the deputy assistant secretary for the Occupational Safety and Health Administration, or OSHA. They met with unified command leaders and toured beach cleanup operations in Port Fourchon, Louisiana.

NIEHS also helped form and is co-leading an interagency workgroup, the Interagency Oil Spill Health Monitoring and Research Workgroup, which includes HHS representatives from ASPR, NIOSH, ATSDR, SAMHSA, and the CDC's NIOSH and National Center for Environmental Health. Such workgroups are not uncommon in HHS to bring together different agencies with overlapping jurisdictions to examine a particular issue.

The CDC is still the key health agency responding to this crisis, and it has now begun coordinating the surveillance system. This includes developing a surveillance register of cleanup workers in coordination with state and local health departments. CDC is using national and state surveillance systems to track symptoms related to the eyes, skin, and respiratory, cardiovascular, gastrointestinal, and neurological systems, including worsening of asthma, cough, chest pain, eye irritation, nausea, and headache.

If the surveillance systems identify groups of people with these symptoms, then state and local public health officials can follow up as needed to investigate whether there's a link between the symptoms and the oil spill. Diligent tracking is important to understanding whether these vague symptoms are a result of oil exposure, the clean-up process, or simply due to other causes. As part of this surveillance CDC is tracking calls to the National Poison Data System made through the Poison Centers of the American Association of Poison Control.

The CDC BioSense program—a national network that collects and analyzes data from thousands of health care institutions across the nation to provide real-time health reports—enables public health officials to track changes in a population's health status. BioSense includes 86 coastal health care facilities in the five Gulf states (Alabama, Florida, Louisiana, Mississippi, and Texas), and CDC staff are



looking for specific syndromes—groupings of certain signs and symptoms—that could be tracked back to the oil spill.

The CDC also produces the Morbidity and Mortality Weekly Report series, the agency’s weekly epidemiological publication of national public health and disease trends. This is another vehicle where new symptoms related to the oil spill would be identified. These data are collected from a variety of different federal and state sources such as emergency departments, urgent care facilities, and doctors’ offices for evaluation.

But despite these monitoring activities—or perhaps because of the variety of entities collecting information—problems with data and information sharing have already developed. At a recent congressional hearing Gina Solomon, who is on the Environmental Protection Agency Science Advisory Board and is a senior scientist with the National Resources Defense Council, revealed that BP, which employs the cleanup workers, was not making lists of these workers available to agencies such as NIOSH—though they’ve apparently become more cooperative since then.<sup>6</sup>

Another key issue that must be addressed is what will happen when the initial emergency response is over, the Unified Command ceases to exist, and workers at CDC and other agencies must turn to new issues of the moment.

The federal government has demonstrated that it has the expertise and can be mobilized within the current structure to respond to a public health crisis. Relevant offices and agencies can ramp up activities when necessary, but no single voice oversees the whole process. A single, authoritative person needs to monitor this choreography, and they should be charged with supervising the whole response plan, identifying needed services at any given time, and ensuring the most appropriate agency delivers these services.

This will be especially important when any initial response lessens and we move into the longer-term monitoring phase, which may go on for decades.

Another key issue that must be addressed is what will happen when the initial emergency response is over.

# Why we need a better Public Health Response Plan

As we noted earlier, it took some time before the gulf oil spill was recognized as a public health threat, in part because several days passed before the disaster's magnitude was realized. No one can be sure what the spill's long-term effects might be. No one, for example, realized at the time the health consequences first responders to the 9/11 attack faced. Other potential public health threats such as Avian and H1N1 flu pandemics never fully developed.

It is exactly this unknown quality of public health threats that requires the nation to develop a plan that maximizes all the health agencies that could be involved in addressing any public health emergency and/or long-term response. An effective and timely response can also prevent a threat from ever becoming more than that.

The Government Accountability Office, in a 2008 report,<sup>7</sup> identified important lessons from the WTC health programs that could be used to help develop a responder health program in the event of future disasters. These lessons focus on responders' health needs, but they are applicable to those of other affected groups.

The GAO found in its report that HHS has not developed a department-level plan for designing and implementing responder health programs that incorporates the lessons from the WTC health programs, despite having responsibility for coordinating the government's public health response. One consequence of not having a plan is that HHS has not mapped out the roles and responsibilities of its various component agencies for designing and implementing responder health programs, and it hasn't identified which HHS agencies would be involved in responder health programs, which agency would take the lead in coordinating these programs, how various agencies' expertise would be used, or how efforts would be coordinated.

In short, there is no master plan to synchronize all HHS efforts—especially as the emergency plan morphs into a long-term monitoring situation.

In the weeks since the blowout and fire on the Deepwater Horizon well an increasing number of federal health agencies have joined CDC in the response. It is becoming evident that this emergency will need monitoring for years—even decades—and we continue to discover new issues, such as the use of record amounts of toxic dispersants, which need close scrutiny.<sup>8</sup> Dr. Lynn Goldman, professor at the Bloomberg School of Public Health at Johns Hopkins University and member of the IOM Committee, noted at a recent Institute of Medicine meeting on the spill's human health effects that, "We have an unknown number of people exposed to an unknown danger. There has not been preparedness in the public-health community for dealing with something of this magnitude."<sup>9</sup>

As we have previously argued, the administration, at the highest levels, is the only one who can lead the short- and long-term management of the public health response to a disaster like that unfolding in the gulf.<sup>10</sup> This is an issue that reaches beyond state and local authorities' purview and abilities, though undoubtedly their expertise and advice must be harnessed. And it requires coordinating the efforts of a wide range of agencies and authorities. Further, in the case of man-made disasters such as Deepwater Horizon, the evidence is very clear that we cannot afford to leave any part of this important response to the very corporation that caused the problem in the first place.

We thus propose the creation and implementation of a Public Health Response Plan in the wake of the continuing gulf oil crisis, where long-term management will almost certainly be needed. The plan draws on lessons learned from 9/11, Hurricane Katrina, and other potential or realized public health emergencies, and it encompasses the federal health agencies' orchestration of the initial emergency response as well as mechanisms for long-term management of ongoing public health responsibilities.

The remainder of this paper specifically outlines how to design this plan and how the elements will help both the response to the gulf crisis and future public health events.

# What a Public Health Response Plan would encompass

For any given public health threat, manmade or natural, real or possible, many different federal agencies will have needed expertise to bring to the situation at different times through the course of events. An architecture needs to be in place that can maximize this expertise, facilitate decisions about what is needed at which point, ensure oversight so that there are no unnecessary gaps or duplication, and enable coordination and communication. Capacity may need to be ramped up, and eventually ramped down, and resources must be allocated appropriately. An appropriate response does not require the creation of a new federal entity, but better organization should be put in place to maximize time and the use of all necessary players at the appropriate junctures, and each player's roles and responsibilities need to be more sharply defined to assist this.

The federal government, acting primarily through HHS, has the authority and expertise to address the immediate health needs and provide more long-term monitoring services. The Security and Accountability for Every Port Act of 2006—also known as the SAFE Port Act—clarified that HHS has the authority to establish and implement a program to provide screening and monitoring services for individuals affected by a public health disaster. But this can only happen if the relevant HHS agencies are involved and have adequate resources to take on the necessary long-term monitoring and management of health risks.

All the expertise is at the ready. In times of noncrisis, federal agencies administer the nation's health programs—keeping our food safe, implementing and managing existing public health programs, and monitoring the health of our workers. Each agency is funded annually at constant levels, and in the absence of a public health crisis they continue to refine their expertise by performing their day-to-day activities. But when a public health emergency strikes more is required of them.

Instead of having each of these agencies ramp up independently of each other, think of our Public Health Response Plan as a series of concentric circles with each of the circles representing a different agency or office. The innermost circle

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represents the first agency or office that responds to the potential crisis and each additional circle signifies another agency as it is determined their expertise is required to address the developing crisis. Each agency continues to have a defined, specific response, but collectively they represent a far more coordinated effort.

A high-ranking official—we recommend the assistant secretary of health—would have oversight of the collective response and be granted the authority to bring more agencies (circles) into the plan over time as a particular incident warrants. Given the ASH office’s nature it will have a different vantage point and a broader view of the developing event or events and be able to identify the best team of responders. The ASH, with a view of how all the agencies can work together, will determine when to pull more agencies into the plan or refocus their efforts, as the response warrants.

In the case of the gulf oil disaster the CDC would be at the center of this plan to respond to workers in potentially dangerous situations and begin the process of monitoring the exposed population and tracking data. As other agencies such as the FDA, NDMS, and SAMHSA enter the scene, instead of functioning in isolation they would be added as new team members with the ASH responsible for making sure they are all working seamlessly, with different agencies assuming different roles over time. This will also ensure a seamless transition into the long-term surveillance and management of health problems when some agencies will no longer be as active and others will have increasing responsibilities.

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## Pulling the trigger

The initial response to a public health threat may be immediate—as in the case of the 9/11 attack on the World Trade Center—or may involve an initial period of “watchful waiting” or assessment as in the case of the Avian Flu and the gulf oil spill. Planning so that agencies and resources can come into play as soon as they are needed—and withdraw when they are no longer needed—is key to an effective response.

This does not necessarily require more written plans and strategies, but it does mean making sure there are clear lines of responsibility and authority to deliver a flexible and nimble response appropriate to the threat at hand. For instance, someone must have responsibility for “pulling the trigger” to move from the observation phase to the emergency response phase. During these times of crisis, putting health care services in place quickly and establishing strong monitoring systems

is also critical as a means of restoring public confidence, and precious resources should not be wasted on duplicative efforts.

Recommendation 1: The assistant secretary for health should have the key responsibility for “pulling the triggers” and initiating, implementing, and managing the response to a public health threat.

Whenever there is a situation with potential to threaten public health, the first health contact should be the assistant secretary for health. The ASH serves as the primary advisor to the secretary of the U.S. Department of Health and Human Services on matters involving the nation’s public health and oversees the Office of Public Health and Science for the Department. Given this responsibility and the HHS’s authority as the primary agency for coordinating the nation’s public health and medical response, the ASH seems the right official to be granted the authority for determining which health agencies should be involved during the immediate response to this threat, recognizing that different agencies might be involved at different times during the response, and the level of the response may vary.

Additionally, it should be the ASH’s responsibility to ensure that there is no duplication or gaps in response, needed resources are available in a timely fashion, and that there is effective coordination and transfer of information between the various HHS agencies and other key stakeholders such as other federal and state agencies, health care providers, nongovernment organizations, businesses, and the public.

Further, the ASH should be charged with determining when and how the early (emergency) response to a public health threat moves into the long-term monitoring and management phase and ensuring the transfer of all needed data, information, and resources to the responsible agency. And the ASH also should have responsibility—in consultation with independent experts such as the Institute of Medicine—for assessing and reassessing the extent and time scale of the long-term phase, which should be proportionate to the public health risks and the scientific evidence.

Finally, as the GAO report recommends, the ASH would take the lead in defining the roles and responsibilities of the various agencies involved in a public health response—who takes the lead, how the expertise of various agencies is used, and how efforts would be coordinated.

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## Monitoring

Baseline data is required to successfully monitor the short-term and long-term human health effects that occur as a result of a large-scale oil cleanup. And when chemicals like crude oil and dispersants that are potentially carcinogenic and can damage DNA are involved, monitoring must continue for substantial periods of time—in some cases over a generation—if untoward effects are to be accurately recognized and assessed.

Health surveillance systems track changes in the number and severity of illnesses and injuries in a population, and they alert public health officials to trends that require further investigation. Such surveillance—when combined with oversight and evaluation, expert advice, and some foresight—provides a sensitive system to quickly recognize any health problems and address them. This is an area that requires extraordinary coordination since sharing data between public, private, and academic sources can become highly complicated.

[Recommendation 2: There must be robust surveillance systems and standardization of data to facilitate the collection and analysis of information from a variety of sources.](#)

The ASH shall also ensure that current federal, state, and local health monitoring, surveillance, and reporting systems are assessed for effectiveness and robustness, and then make the recommendations necessary to have them brought up to the standards needed to ensure the protection of public health. It is also crucial that the system established has the ability to recognize excess morbidity and mortality in the population or populations being studied and correctly identify the cause.

Long-term monitoring will require carefully analyzing data collected from multiple sources. The federal and state health agencies and other federal agencies that monitor and collect health-related data should agree to a minimum set of standards for this data to facilitate its transfer and utilization. Health data collected must have the ability to be compared across agencies and not wait for an emergency to begin this process. And as electronic systems are developed, the ability to move data between federal data systems must be incorporated into all system design.

When current authorities and roles make it difficult for individual agencies to share information or to acquire health-related data from businesses, manufactur-

ers, polluters, and others in a timely fashion, these limitations should be identified, addressed, and clarified through regulations, legislative action, and, if necessary, legal clarifications.

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## Resources and capacity

The CDC was first on the scene to monitor workers' health, and it has started putting together a register of people working and living in the gulf who have been exposed to crude oil, dispersants, and toxic fumes. The maintenance of this register over 20 years or more will require resources and expertise not currently available. The CDC already maintains the World Trade Center Health Registry, which was established in 2002 to monitor the health of people directly exposed to the WTC disaster over a 20-year period. Other agencies are also ramping up to meet the needs developing in the gulf. These additional required responsibilities are quite typical in responding to any developing public health threat.

### Recommendation 3: Sufficient resources must be provided

The secretary of HHS shall identify and make recommendations to Congress as necessary for sufficient funds to ensure that HHS has capacity and capability to undertake both short-term and long-term public health efforts. This is especially important for long-term monitoring and surveillance studies and evaluations since the incident will likely move from front page news and attention will ultimately be shifted to other more pressing events.

The source of the funding will depend on the event. In the case of natural or man-made disasters it will be solely a federal response, but where there are entities that cause the event they should be held responsible for providing adequate funding. (More on funding mechanisms in the next section.)

Providing the appropriate workforce to carry out the extra responsibility needs to also be considered. The Public Health Service Corps and the newly established Ready Reserve Corps are teams of public health professionals specially trained and available to mobilize to respond to public health crises. They could ensure that the Public Health Response Plan has sufficient "surge" workforce capacity, and these corps members can also offer short - to medium-term access to needed expertise.



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## Financial infrastructure

A key issue for all of this will be how to pay for it, and, as in the case of the current BP oil crisis, who is responsible for covering the cost?

A number of current systems have been established to address these sorts of problems, and they are funded differently. The federal government funds some programs, for example the WTC Medical Monitoring and Treatment Program outlined above, Medicare services for people affected by the Libby, Montana vermiculite mine, and the Black Lung program.

In some cases blame can clearly be assigned for a disaster, though battles over responsibility may remain. For example, there have been many attempts over the years to establish a trust fund from levies on the asbestos industry to supplant litigation as a means to compensate victims of asbestos.

BP has said that it will pay for the gulf disaster and there will be no cost to the public purse. They have established a \$20 billion “Claims and Escrow” fund to ensure that individuals harmed by this calamity receive prompt, fair compensation for their losses—but this should be considered a down payment. Sufficient funds should also be placed into an escrow account to provide for the long-term monitoring and future health services needs.

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### Recommendation 4: An appropriate payment mechanism must be established

A trust fund should be established into which payments, assessments, and levies can be paid and then used for the funding of long-term monitoring and management, needed research and evaluation, and, as appropriate, the provision of needed health care services.

If the cause of the emergency is a deliberate attack on the nation, funding could be transferred from the Department of Homeland Security. If the cause can be attributed to any other source such as BP, the entity at fault would also be expected to contribute to this trust fund.

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## Addressing individual health needs

The worst-case scenario is that over time surveillance data collected in a variety of ways show that individuals have suffered lasting damage to their health. In these cases the system established needs to identify these problems as quickly as possible with minimal arguments over causes, and then make sure victims get the care and treatment they need. It is imperative that the system is able to cope with the fact that affected individuals may no longer be living in the same geographical areas, and that those who are already sick with chronic illnesses or who are at increased risk of chronic illness because of risk factors such as smoking may be most affected.

Examples of such programs already operating include the WTC Medical Monitoring and Treatment Program, which is overseen by NIOSH and funded by congressional appropriations. It provides free screening, monitoring, treatment, and support for those affected by the World Trade Tower collapse through several programs targeted to first responders and others whose health was affected. NIOSH also operates the World Trade Center Health Registry described above.

*Recommendation 5: We need to prepare for long-term screening, treatment, care, and support needs for people affected by a public health disaster*

The secretary of HHS should be responsible for meeting the health care needs of individuals that arise from a public health disaster. When the secretary provides for this care they should recognize that both physical and mental health care may be needed, that many people will have moved from affected areas, and that treatment needs might come up only after a considerable period of time. In cases where blame can be assigned or has been assumed, the full cost of this treatment should be met by the party or parties responsible.

# Conclusion

A significant geographical region of the United States is currently facing a public health threat from the gulf oil spill, and the spill's magnitude is still unknown and unpredictable. These types of crises have happened in the past with terrorism, hurricanes, and pandemics, and they will happen again from unknown sources. But in all of these incidents it is critical that the nation knows that the federal government is ready and able to coordinate the public health response and monitor the unidentified long-term health effects.

The federal health agencies must respond quickly and effectively to such public health threats as part of a coordinated Public Health Response Plan. An established architecture needs to be in place that facilitates and enables a strong emergency response and coordinates the long-term monitoring and management of subsequent health problems. This requires clear lines of responsibility, authority, and oversight combined with sufficient resources and capacity, and the ability to work with a range of stakeholders.

We recommend that the assistant secretary of health be charged with implementing the Public Health Response Plan as outlined in this paper, and that the secretary of HHS make recommendations as necessary to Congress for funds to support this work.

The key factor to consider in implementing these recommendations must be protecting the health of the vulnerable workers and families exposed to the public health threat. The BP gulf oil crisis is a disaster of epic proportions. The effects on the lives of the families affected by the initial explosion, the cleanup, and the altered economy are beyond quantification. The most pressing concerns are to address these peoples' current health conditions due to the oil spill and subsequent events, and to put measures in place to monitor and hopefully prevent future health problems.

It is critical that the nation knows that the federal government is ready and able to coordinate the public health response and monitor the unidentified long-term health effects.

But we must not lose this opportunity to evaluate the systems we have in place and improve them where necessary so that the American people can be reassured that the nation has the best plans and systems in place to best address future, unavoidable public health emergencies. Developing a strong public health emergency response plan that clearly demonstrates the federal government's willingness and ability to protect the public's health when called on to do so would undoubtedly be a positive outcome from this horrible tragedy.

# Appendix

## Federal agencies with responsibilities for the protection of health in the gulf oil spill

### I. Unified Command agencies with health and health-related responsibilities

Agency	Authority	Activity (relevant to health)
<b>Deepwater Horizon Unified Command</b>	<p>A unified command has been established to manage response operations to the Deepwater Horizon incident. It links the organizations responding to the incident and provides a forum for those organizations to make consensus decisions.</p> <p>The organizations involved are: NOAA, DoD, USGS, EPA, FWS, CDC, USCG, DHS, NPS, OSHA, MMS, DoI, Department of State, BP, and Transocean.</p> <p>The Coast Guard is the lead federal agency responsible for the spill response.</p>	<p>The Unified Command <a href="#">website</a> has information available in English and eight other languages. This includes frequently asked questions about drinking water safety and air quality, and a health and safety page that includes a section on worker-volunteer cleanup guidelines.</p>
<b>National Oceanic and Atmospheric Administration (NOAA)</b>	<p>The National Oceanic and Atmospheric Administration, or NOAA, has the authority to close federal waters to commercial fishing (states have the authority to close waters within the state three-mile limit).</p>	<p>NOAA scientists are collecting oysters and sediment samples from nearly 60 Gulf Coast shoreline sites stretching from the Texas-Louisiana border to southwestern Florida. They will look at the toxic effects of oil on sediment-dwelling creatures that play an important role in the food chain.</p> <p>NOAA and the Food and Drug Administration are implementing a broad-scale seafood sampling plan that includes sampling seafood from inside and outside the closure area as well as market-based sampling. Some fishing areas have been closed.</p>
<b>Environmental Protection Agency (EPA)</b>	<p>EPA's mission is to protect human health and to safeguard the natural environment—air, water, and land—upon which life depends.</p> <p>EPA <a href="#">has responsibilities</a> for waste management and for the human health and environmental safety of chemicals used in the BP cleanup.</p>	<p>EPA is collecting samples along the shoreline and beyond for chemicals related to oil and dispersants in the air, water, and sediment; supporting and advising Coast Guard efforts to clean the reclaimed oil and waste from the shoreline; and closely monitoring the effects of dispersants in the subsurface environment.</p> <p>Data posted on EPA's website is used to determine potential risks to public health and the environment. This data is used by the Coast Guard, FDA, NOAA, and state and local agencies to make decisions about seafood, habitat, and beach closure issues.</p>
<b>Occupational Safety and Health Administration (OSHA)</b>	<p>OSHA is part of the Department of Labor. It is responsible for the occupational safety and health standards, rules, and regulations.</p> <p>OSHA <a href="#">has responsibility</a> for the safety and health of employees involved in the oil spill response and cleanup operations.</p>	<p>OSHA, the National Institute for Occupational Safety and Health, and National Institute of Environmental Health Sciences ensure that appropriate training is provided to workers that BP is hiring to help clean up the oil. OSHA also monitors workers' exposure to oil products and chemicals and reviews BP's monitoring data.</p> <p>OSHA monitoring data is available <a href="#">here</a>.</p>

## Federal agencies with responsibilities for the protection of health in the gulf oil spill

### I. Unified Command agencies with health and health-related responsibilities

Agency	Authority	Activity (relevant to health)
<p><b>Department of the Interior (DoI)</b></p> <p>Includes:</p> <ul style="list-style-type: none"> <li>Fish and Wildlife Service (FWS)</li> <li>National Park Service (NPS)</li> <li>US Geological Survey (USGS)</li> </ul>	<p>DoI protects America's natural resources and heritage, honors cultures and tribal communities, and supplies the energy to power the future.</p> <p>DoI is responsible both for the regulation and oversight of the oil drilling industry aside from responsibilities around the cleanup, including assessing fish and wildlife damage.</p>	<p>DoI <u>has been helping oversee</u> BP's efforts to close the leaks and clean up the oil, and it has been jointly spearheading the investigation into the event itself with the U.S. Coast Guard.</p> <p>FWS <u>is assisting</u> with immediate threats to fragile habitat and providing expertise in assessing and addressing the long-term damage of the oil spill on fish, wildlife, and habitat.</p> <p><u>NPS</u> is drafting plans with the Coast Guard for wildlife reconnaissance and recovery, and shoreline cleanup and assessment; mobilizing resource experts to direct the Coast Guard and responsible party contractors during cleanup and recovery; and providing guidance and prioritization for protection measures such as boom placement in sensitive areas.</p> <p><u>USGS</u> scientists are collecting samples to ascertain levels of toxicity to water, sand, sediment, and vegetation and to evaluate impacts to wildlife.</p>
<p><b>Center for Disease Control and Prevention (CDC)</b></p> <p>Includes:</p> <ul style="list-style-type: none"> <li>Office of Public Health Preparedness and Response (OPHPR)</li> <li>National Institute for Occupational Safety and Health (NIOSH)</li> </ul>	<p>CDC is an agency of the Department of Health and Human Services. It works to protect public health and safety by providing information to enhance health decisions. It focuses on developing and applying disease prevention and control, environmental health, occupational safety and health, health promotion, prevention, and education activities.</p> <p><u>OPHPR</u> helps the nation prepare for and respond to urgent public health threats by providing strategic direction, support, and coordination across CDC for preparedness activities for public health emergencies including natural, biological, chemical, radiological, and nuclear incidents.</p> <p>NIOSH conducts scientific research, develops guidance and authoritative recommendations, disseminates information, and responds to requests for workplace health hazard evaluations.</p>	<p>CDC <u>has workers</u> in gulf oil spill areas monitoring potential health threats or conditions using established national surveillance systems. They are also reviewing environmental data packages to determine whether short-term or long-term health effects might be caused by exposure to oil, oil constituents, or dispersants. These data include sampling results for air, water, soil/sediment, and waste oil samples.</p> <p>NIOSH <u>is monitoring workers</u> involved in the cleanup effort. It is identifying job duties and locations, training, and making recommendations on the capabilities of personal protective equipment, and providing guidance to federal and state partners on how to protect volunteers from potential safety and health hazards.</p>

## Federal agencies with responsibilities for the protection of health in the gulf oil spill

### II. Federal health agencies which are involved, or could potentially be involved, but are not listed as part of Unified Command

Agency	Authority	Activity (relevant to health)
<b>Department of Health and Human Services</b>		
<p><b>Assistant Secretary for Preparedness and Response (ASPR)</b></p> <p>Includes: National Disaster Management System (NDMS)</p>	<p>ASPR serves as the HHS secretary's principal advisory staff on matters related to bioterrorism and other public health emergencies.</p> <p>ASPR directs the department's emergency response activities and coordinates interagency activities related to emergency preparedness and protection of the civilian population.</p> <p>NDMS is a federally coordinated system that augments state and local capabilities in dealing with medical impacts during disasters.</p>	<p>ASPR's regional emergency coordinators are working with emergency coordinators, Departments of Health, and the Association of State and Territorial Health Officials in affected states.</p> <p>HHS liaison officers, who provide coordination and oversight of federal medical care, have been deployed to the Unified Area Command in Louisiana, to the Incident Command Centers in Louisiana and Alabama, and to the National Incident Command Center in Washington, D.C.</p>
<p><b>Food and Drug Administration (FDA)</b></p>	<p>The Center for Food Safety and Applied Nutrition, or CFSAN, at FDA works to assure that the food supply is safe, sanitary, wholesome, and honestly labeled.</p> <p>FDA inspects food facilities routinely, often in partnership with state regulatory agencies. The frequency is based on the type of facility, the type of food processed or handled at the facility, and the public health risk associated with the product.</p>	<p>FDA is working with NOAA, the National Marine Fisheries Service, the EPA, other federal agencies, and several state authorities in the regions affected by the recent oil spill to monitor the developing situation and its potential impact on the safety of seafood harvested from the area.</p>
<p><b>National Institute for Environmental Health Sciences (NIEHS)</b></p>	<p>NIEHS is one of 27 research institutes and centers that comprise the National Institutes of Health.</p> <p>The mission of NIEHS is to reduce the burden of human illness and disability by understanding how the environment influences the development and progression of human disease.</p>	<p>NIEHS has helped set up a training program for cleanup workers under the Worker Education and Training Program.</p> <p>Other NIEHS work includes:</p> <p>Identifying all the relevant human health and toxicological information to help inform current actions and drive needed research</p> <p>Developing new tools, such as health surveys and medical tests, to gather essential information about adverse health effects from the oil spill, both in the short term and long term</p> <p>Engaging additional stakeholders through a network of governmental, academic, and nongovernmental organizations</p>
<p><b>Agency for Toxic Substances and Disease Registry (ATSDR)</b></p>	<p>ATSDR is an independent agency even though the CDC director serves as the ATSDR administrator and its programs are linked with those of NIEHS.</p> <p>The ATSDR investigates community exposures related to chemical sites and releases; works closely with federal, tribal, state, and local agencies to identify potential exposures; assesses associated health effects; and recommends actions to stop, prevent, or minimize these harmful effects.</p>	<p>The CDC website advises that ATSDR staff are involved in the response to the spill, but the exact role of these staff is unknown.</p>
<p><b>Substance Abuse and Mental Health Services Administration (SAMHSA)</b></p>	<p>SAMHSA's mission is to reduce the impact of substance abuse and mental illness on America's communities. This work is done through the Center for Mental Health Services, or CMHS.</p> <p>CMHS collaborates with the Federal Emergency Management Agency to train state mental health staff to develop crisis counseling training and preparedness efforts in their states.</p>	<p>CMHS staff help ensure that people receive immediate, short-term crisis counseling, as well as ongoing support for emotional recovery.</p>

# Endnotes

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- 4 Government Accountability Office, "September 11: HHS Needs to Develop a Plan That Incorporates Lessons from the Responder Health Programs," GAO-08-610, Report to Congressional Requesters, May 30, 2008.
- 5 "Official Site for the Deepwater Horizon United Command," available at <http://www.deepwaterhorizonresponse.com/go/site/2931/>.
- 6 Committee on Energy and Commerce, "Hearing on the BP Oil Spill: Human Exposure and Environmental Fate," June 10, 2010, available at [http://energycommerce.house.gov/index.php?option=com\\_content&view=article&id=2035:hearing-on-the-bp-oil-spill-human-exposure-and-environmental-fate&catid=130:subcommittee-on-energy-and-the-environment&Itemid=71](http://energycommerce.house.gov/index.php?option=com_content&view=article&id=2035:hearing-on-the-bp-oil-spill-human-exposure-and-environmental-fate&catid=130:subcommittee-on-energy-and-the-environment&Itemid=71).
- 7 Government Accountability Office, "September 11: HHS Needs to Develop a Plan That Incorporates Lessons from the Responder Health Programs."
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- 9 Bryan Walsh, "Assessing the Health Effects of the Oil Spill," *Time*, June 25, 2010, available at <http://www.time.com/time/printout/0,8816,1999479,00.html>.
- 10 Lesley Russell and Ellen-Marie Whelan, "Taking Control of Public Health."



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