

# WMD Non-Proliferation



For much of the 20th century, the United States was one of two superpowers and used tens of thousands of weapons of mass destruction to deter our chief adversary, the Soviet Union. But with the Soviet Union's collapse, the entire paradigm of global power and security

changed. Nuclear weapons, once an important aspect of our national security, are useless against most of today's greatest threats and pose some of the greatest risks to our security. Chemical and biological weapons may present an even greater threat, as they can be used by governments not only as tools of state power, but also on battlefields against both internal and external enemies

## What should we do?

The threat of loose nuclear material and the sheer number of nuclear weapons in the world that could fall into the wrong hands or be used



## If you read only one thing A Changed World

- During the Cold War, nuclear weapons helped keep America safe.
- Today, nuclear terrorism poses serious threats to U.S. security.
- WMD proliferation increases the chances of nuclear, chemical and biological use, loss of control of weapons, materials, or expertise, and sale on the black market.
- Russia's new nationalism doesn't change this picture: Russia has no interest in using nuclear weapons against the U.S., even if we may oppose each other on some foreign policy issues.

## We need to:

- Reduce the number of nuclear weapons around the world.
- Secure loose nuclear material and technology.
- Maintain our "nuclear umbrella" so our allies feel secure.required.

deliberately or accidentally puts us in danger. Working with other countries to reduce the number of nuclear weapons and secure nuclear material is in our security interest. Meanwhile, working with partners and international institutions can limit the proliferation of not only nuclear but also chemical and biological weapons, reducing the risk of chemical or biological terrorism, as well as protecting civilians from some of the most hideous weapons ever devised. The United States and the Soviet Union maintained the greatest stockpiles of these weapons, both within our own countries and forward-deployed with our allies around the world. It is critical, therefore, to coordinate with Russia to undo that legacy and ensure their destruction.

#### 9 COUNTRIES HAVE NUCLEAR WEAPONS

Russia	8,500
United States	7,700
France	300
China	240
United Kingdom	225
Pakistan	90-110
India	80-100
Israel	80*
North Korea	<10

\*Israel is not a declared nuclear state, but they are widely believed to have nuclear weapons

Source: Federation of American Scientists, “Status of World Nuclear Forces End-2012”

## Key Issues

**Today’s greatest threats come not only from nation-states, but from non-state actors, like terrorist groups.** Weapons of mass destruction, though sometimes effective as tools of state power, are not effective against non-state actors, which are often unaccountable to any state apparatus. The very weapons that were once considered essential to our security and global stability now pose some of the greatest risks to our security. The current U.S. arsenal of 7,700 nuclear weapons, approximately 5,000 of which are active, is a Cold War holdover that is increasingly irrelevant to today’s security threats, costs billions of dollars to maintain, and sucks funding from higher priority defense programs.

**Global nuclear technology—even for civilian use—increases the risk of proliferation.** Making nuclear reactor fuel uses the same enrichment technology as making weapons-grade highly enriched uranium. Irradiating fuel in a reactor produces weapons-grade plutonium. Businesses are experimenting with making nuclear energy plants small enough to fit in a truck-borne shipping container, which could potentially increase the risk of proliferation. The spread of nuclear energy increases the risk that nuclear materials and technologies will fall into the wrong hands.



Nuclear weapons don’t help in the fight against terrorists. They are more a part of the past than the future.



WMDs used to deter our enemies. But the world is changed and today, they pose a real threat to us.

**The technology needed for a nuclear weapon is often associated with national prestige.** Some states want to acquire this technology to bolster their regional or international standing. Nuclear weapons are also a great equalizer against a rival that has superior conventional military capabilities. Countries like Pakistan view nuclear weapons as a less expensive way to counter the threat from larger conventional militaries, like India's. Finally, as Iran's nuclear intentions remain uncertain, a series of countries in the Middle East appear to be preparing to develop nuclear power as a way of hedging their bets and enabling a move to nuclear weapons if needed.

**Terrorists want a weapon of mass destruction and they may use it if they get one.** Al Qaeda has been trying to get a nuclear weapon since the mid-1990s. Osama bin Laden said it was a "religious duty" to obtain a nuclear weapon, and al Qaeda's current leader, Ayman al-Zawahiri, wrote a book authorizing the killing of American civilians with a nuclear weapon. Terrorists have few disincentives to use a nuclear weapon: unlike even the most radical regimes, terrorists have no country for us to retaliate against and no population they must protect.

**The spread of nuclear material makes it more possible for al Qaeda to get a nuclear bomb or create a dirty bomb.** Since the 1980s, a nuclear black market has developed that has provided nuclear technology from countries such as Pakistan and North Korea to other entities trying to acquire nuclear weapons. A wide range of companies, smugglers, and illegal arms brokers across many countries have participated in this black market.

The nuclear black market gives terrorist groups and rogue states more opportunities to acquire nuclear material. The nine nuclear states have about 17,000 nuclear weapons between them, but there is enough



Terrorists with nukes have no reason not to use them; they don't have a country for us to strike back! That's why loose nuclear material is so dangerous.

highly enriched uranium and plutonium around the world to make approximately 100,000 more. While building and using a nuclear bomb would be difficult for terrorist groups, making a “dirty bomb” – a regular bomb used to disseminate nuclear waste or other radioactive material – is far less challenging. Though a dirty bomb would likely kill no more people than a conventional bomb of the same size, the psychological and economic damage of such a weapon could be devastating.

**Chemical and biological weapons are much less costly than nuclear weapons to acquire, and require much less technical expertise to use.** The destructive power of these weapons, combined with the relatively low costs associated with their potential acquisition and use, makes them ideally suited for non-state actors seeking to maximize destructive impact. It is therefore critical that non-proliferation efforts address the spread of chemical and biological agents, as well as material that could be used for nuclear weapons.

**Some progress has been made towards eliminating chemical and biological agents.** Chemical weapons used by Saddam Hussein against Iran during the 1980s, and again against Iraqi Kurds during the 1990s, were evidently eliminated some time before the 2003 American-led invasion, though other countries around the world have developed clandestine programs. Through international isolation, and then effective diplomacy, Libya was pressured to join the Chemical Weapons Convention in 2004, revealing at that time that it had 25 tons of mustard gas, 1400 tons of chemical precursors, and 3500 chemical weapon munitions. In February 2014, Libya was declared chemical weapons free, a huge triumph for the Organization for the Prohibition of Chemical Weapons (OPCW) that oversees implementation of the Convention.

**Chemical weapons were used in Syria in 2013.** Chemical weapons were used in small-scale attacks throughout 2013 and a far larger one in August of that year. As many as 1,300 civilians were killed by Sarin gas in the August attacks, including hundreds of children. Amid threats of airstrikes by American forces, a deal was brokered between Syria, Russia, and the United States in which Syria would surrender its chemical weapons to be disposed of by international inspectors. Syria subsequently joined the CWC in October 2013, and as of March 2014, 45% of the weapons have been removed.

## The Policy Landscape and Recommendations

**Some say the U.S. nuclear arsenal should be both maintained and updated, at great cost.** A common argument is that decreasing our stockpile will make the U.S. and our allies less safe and signal a decrease in international stature. These advocates often call for large investments to upgrade our nuclear arsenal to ensure preparedness against future threats. However, the number of nuclear weapons today make the world more dangerous, and non-state adversaries like terrorists are not dissuaded by them. Excess spending on nuclear weapons threatens our national security because every dollar spent on unnecessary nuclear programs is a dollar not spent on supporting our diplomats and troops to address today's threats. Our nuclear arsenal could be reshaped and right-sized, and the savings used to fund modern programs for 21st century threats, while leaving our nuclear deterrent, both for ourselves and our allies, fully intact.



Without an enemy like the Soviet Union, we don't need more nukes or new nukes. They're incredibly expensive to maintain. We need to spend money on weapons that match the threats we face today.

**New programs to modernize weapons are unnecessary and out of touch with the current security climate.** We already have programs that work to keep our current stockpile up-to-date. Through the Stockpile Stewardship Program, the Department of Energy ensures the long-term safety and reliability of our nuclear Experts maintain that, even with a ban on explosive testing, the U.S. can be highly confident in the reliability and performance of our nuclear weapons due in part to our unmatched computerized testing models.

**Too many nuclear weapons make the world more dangerous.** In the 20th century, nuclear weapons played a role in preventing the Cold War from going hot. With the U.S. and the Soviet Union holding huge stockpiles, there were great incentives to avoid a war. That same situation does not exist today. We have disagreements with Russia, but Russia has no interest in a nuclear war, and our arsenal is 30 times larger than that of China. The United States has more than enough nuclear weapons to deter any nation, and can retain that deterrent while eliminating excess weapons. Terrorists, however, are spread across the world, live within civilian populations, and don't have a return address. Unlike the Soviet Union during Cold War, they are not deterred by our nuclear weapons.

**Our first priority should be securing loose nuclear material.** Al Qaeda wants a nuclear weapon, and they may use one if they get it. This makes Cooperative Threat Reduction programs a national priority. They help foreign governments dismantle their nuclear weapons programs and make loose nuclear material, technology, and expertise less accessible to both states and terrorists. This allows both the United States and our allies to reduce our "threat surface" (i.e. the number and size of installations that must be carefully guarded) without altering the balance of power or jeopardizing the mutual deterrence regime. In recent years however,



Imagine what a nuclear weapon in the hands of a terrorist group could do to the U.S. or our allies.



### Key Fact

**Cooperative Threat Reduction programs (also referred to as Nunn-Lugar) are a bipartisan approach to securing loose nuclear, chemical, and biological material.** They purchase nuclear material from countries which no longer want a robust nuclear program or have no way to store or protect it. This ensures that poorly guarded weapons and material aren't vulnerable to theft or sale on the black market.

**Loss or theft of a nuclear weapon is a possibility.** There have been numerous incidents of nuclear security lapses in the United States and other nuclear countries. In August 2007, a U.S. bomber mistakenly transported six

these low-cost and effective threat reductions have been the target of significant budget cuts.

**Reduce overall U.S. stocks of nuclear weapons to match spending to strategic priorities.** Large, global stockpiles make it easier for a nuclear weapon to slip into the hands of terrorists. There have been numerous instances in which nuclear states, including the U.S., have lost visibility of their nuclear weapons. America can better maintain our security with fewer nuclear weapons worldwide.

Our nuclear stockpile encourages Russia to maintain thousands of unnecessary nuclear weapons, resulting in a bloated Cold War nuclear complex that poses risks of proliferation to both states and terrorists. Additionally, many terrorist organizations operate along Russia's borders. Reducing our stockpile would save billions of dollars while providing Russia with an incentive to reduce theirs. In a time of tight budget constraints and a need for modernization to match 21st century threats, these are smart cuts.

**Support stronger monitoring and verification capabilities.** There are effective international programs in place to track the spread of nuclear, chemical, and biological weapons technology and materials, but the prestige and power that come with acquiring a nuclear weapon creates incentives to cheat the system. International treaties that improve monitoring systems, ban the testing of nuclear weapons, and halt the production of new nuclear, chemical, and biological weapons will make America safer. The U.S. should also pursue globally-respected standards for securing nuclear, chemical, and biological threats. Currently, there are only voluntary guidelines and laws within individual countries. To improve American security we need a set of global standards that are

nuclear-armed missiles from North Dakota to Louisiana. In 2011, protestors broke into a French nuclear facility to expose its security flaws. And in July 2012, in the worst security breach in the history of the U.S. nuclear program, an 82 year-old nun and her two compatriots broke into one of the most sensitive facilities in the nuclear weapons complex and defaced a bunker storing highly enriched uranium components for nuclear weapons.

monitored and enforced to ensure compliance.

**Strengthen international organizations that monitor and enforce existing weapons agreements.** The International Atomic Energy Agency (IAEA) is in charge of monitoring and enforcing nuclear weapons agreements, including ensuring that all parties are in compliance with the Nuclear Non-Proliferation Treaty (NPT). The IAEA conducts routine inspections of some of the most challenging actors on the issue of non-proliferation, most notably Iran, whose facilities they inspect regularly and monitor 24/7 with closed circuit cameras in accordance with the November 2013 interim agreement.

For chemical weapons, the Organization for the Prohibition of Chemical Weapons (OPCW) is the chief monitoring body, and oversaw the dismantling of Libya's chemical weapons program. It is now responsible for overseeing the destruction of Syria's chemical weapons.

## Key Players

**The Department of Defense (DoD).** DoD is responsible for securing the U.S. nuclear stockpile and administering the strategic nuclear triad (bomber aircraft, land-based missiles, and nuclear-armed submarines), as well as a small number of sub-strategic nuclear forces. It also executes Cooperative Threat Reduction programs, which reduce loose nuclear material, as well as other nuclear, biological, and chemical weapons threats around the world.

**National Nuclear Security Administration (NNSA).** NNSA—an independent entity within the Department of Energy—maintains security at U.S. national laboratories and other nuclear facilities and has responsibility for designing, testing, and producing nuclear weapons. The National Nuclear Security Administration also works to counter overseas threats by upgrading nuclear security overseas, removing nuclear material from international facilities, and converting research reactors from weapons-usable highly enriched uranium to low enriched uranium fuel.

**The Nuclear Regulatory Commission (NRC).** The NRC is an independent agency that regulates the domestic use of nuclear technology for non-military purposes, including setting safety and security standards for civilian nuclear power sites.

**The Department of Homeland Security (DHS).** DHS monitors borders, port security and other entry points to ensure nuclear, chemical, or biological threats are not smuggled into the United States.

**The P5+1.** The P5+1 consist of the five permanent members of the UN Security Council (the United States, Russia, the United Kingdom, France, and China), which were also the original five nuclear powers, plus Germany. The P5+1 have been in negotiations with Iran intermittently since 2006. A major breakthrough came in November 2013, when Iran agreed to a moratorium on uranium enrichment, the destruction of their stockpiles of highly enriched uranium, and frequent inspections and constant monitoring of their facilities, all in exchange for limited sanctions relief in the form of \$4 billion in unfrozen assets. Negotiators from both sides continue to work towards a permanent agreement.

**The International Atomic Energy Agency.** The IAEA is the UN body promoting nuclear security through international inspections, training, tracking international proliferation, promoting safety, and helping countries realize the peaceful benefits of nuclear technology. It ensures compliance with the Non-Proliferation Treaty.

**Organization for the Prohibition of Chemical Weapons.** The OPCW is an international organization based in The Hague responsible for monitoring and enforcing the Chemical Weapons Convention. It was awarded the 2013 Nobel Peace prize for its work marginalizing chemical weapons as “taboo under international law.” It currently oversees the destruction of Syria’s chemical weapons. Only six countries are currently not party to the CWC: Angola, Burma, Egypt, Israel, North Korea and South Sudan. Several more countries, including the United States, Russia, and Japan are party to the convention, and therefore have committed not to possess chemical weapons, but are still in the process of destroying their existing stockpiles.

## Going Deep: Background & Context

**In addition to serving a deterrent role, chemical and biological weapons can be used to unleash terror on soldiers and civilians.** Though no one has used nuclear weapons since 1945, chemical weapons have been used many times, often to kill and terrorize civilian populations. We should encourage all countries to eliminate these weapons as quickly as possible, and lead by example. The global abolition of chemical weapons would have no impact on our force posture or

strategic position in the world, and would finally relegate the horrors of these weapons to the dustbin of history.

**World War II brought about the nuclear age.** Fearing that Germany was attempting to build nuclear weapons during World War II, President Roosevelt created the Manhattan Project to develop an American weapon first. President Truman deployed the only two nuclear weapons ever used in war when he dropped two nuclear bombs on Hiroshima and Nagasaki in 1945 to bring an end to the Pacific War and avoid an invasion of Japan.

**Biological weapons have existed since ancient times.** Armies would contaminate the water supplies of besieged cities, or even fling infected livestock or human remains over city walls to spread disease. Biological warfare was banned by the Geneva Protocol of 1925, but the protocol only banned the use of biological weapons; many nations, including the United States and the Soviet Union, continued to develop, manufacture, and stockpile biological agents like anthrax, tularemia, and others that could be turned into weapons if needed. Additionally, some countries, like Imperial Japan, used biological weapons extensively well after 1925. Weaponized viruses and bacteria do not distinguish between combatants and civilians, and to an even greater degree than chemical or nuclear weapons, their lethal effects can spread far beyond the intended target area.

**Chemical weapons emerged in the late 19th century, and contributed to the horrors of WWI.** Their use, too, was banned by the Geneva Protocol of 1925, but the protocol permitted the development, manufacture, and stockpile of the weapons. Like biological agents, chemical weapons kill indiscriminately, and have psychological effects on civilian populations that exceed those of conventional arms. The

Chemical Weapons Convention, which came into force in 1997, and which the United States signed in 2009, bans the stockpiling of any quantity of these weapons, and the United States is in the process of neutralizing the massive chemical weapons stockpile left over from the Cold War.

**Nuclear weapons were considered a valuable deterrent during the Cold War.** Over 70,000 nuclear weapons were built during the Cold War. Many believe that the devastatingly large nuclear stockpiles held by the U.S. and Soviet Union prevented the two superpowers from going to war directly, though they did fight proxy wars by funding different sides of conflicts throughout Asia, Latin America, the Middle East, and Africa.

**The United States has three means of delivering a nuclear weapon, known collectively as the “Nuclear Triad.”** The Air Force controls Intercontinental Ballistic Missiles that can deliver nuclear weapons to targets around the world, as well as a nuclear-capable long-range bomber fleet. Navy Ballistic Missile Submarines form the third leg of the “nuclear triad,” ensuring that we can retaliate even if the U.S. homeland is attacked.

**The Cuban Missile Crisis is the closest we have come to nuclear war.** In 1962, the Soviets brought nuclear weapons to Cuba. The ensuing two-week stand-off between the Soviets and the Kennedy administration is the closest the world has come to a nuclear war. It also convinced both sides that a continued arms race could increase the risk of nuclear war and led to an interest in arms control.

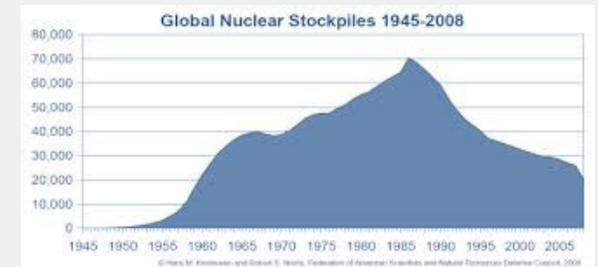
**America signed the Nuclear Nonproliferation Treaty in 1968.**

The treaty says that nuclear weapons states will work toward the goal of eliminating their weapons. Though it does not specify a mechanism for disarmament, it also does not call on states to unilaterally disarm. Instead, it commits them to working together to reduce the number of weapons worldwide.

Countries that joined the treaty as non-nuclear weapons states committed themselves to forgo acquiring nuclear weapons, though they retained access to civilian nuclear technology. Three nuclear states (India, Pakistan, and Israel) acquired weapons outside of the treaty; North Korea is the only signatory to withdraw from the treaty and subsequently develop a weapon.

**President Reagan worked with the Soviets to reduce American and Soviet weapons.** He began negotiating the START Treaty with the Soviets, which limits the warheads and delivery vehicles the U.S. and Russia can maintain. It also allows the countries to inspect each other's nuclear facilities. Since Russia and the U.S. have about 95% of the world's nuclear weapons, reductions worldwide will largely entail reductions by Russia and the U.S.

**The nuclear black market began as early as the mid-1980s.** A nuclear scientist named A.Q. Khan helped Pakistan develop its nuclear weapon. Unlike other scientists, however, he began selling the technology needed to make a nuclear weapon on the black market, and how much support he had from the Pakistani government remains a contested issue. Khan's network is credited with supplying technology that assisted nuclear programs in North Korea, Iran, and Libya. An apparent "fourth customer" has never been conclusively identified, and some have suggested, controversially, that Khan might actually have supplied Pakistan's arch-



rival India.

**Bipartisan security leaders now see nuclear weapons as making the world more dangerous.** In 2007, former Secretary of State and National Security Advisor Henry Kissinger, former Senator Sam Nunn, former Secretary of Defense William Perry, and former Secretary of State George Shultz wrote that they believed the U.S. needed to work toward ridding itself of nuclear weapons to ensure our security. Both then-Senator Obama and his opponent in the 2008 presidential campaign, Republican Senator John McCain, embraced this call to reinvigorate nuclear disarmament efforts. In 2009, President Obama laid out a vision for a nuclear weapons-free world and in 2010, as part of a summit process the new administration had initiated, 47 countries pledged to secure all loose nuclear material by 2014.

**New START is a treaty signed by the United States and Russia in 2010, which further limits the deployed nuclear weapons of both countries.** The treaty will last 10 years, with the option to renew for five years if both countries agree, and limits the nuclear weapons of both sides to 700 weapons deployed on delivery systems (missiles or bombs), while permitting an additional 1,550 warheads to be maintained separately from delivery systems. Critically, it does not place a limit on stockpiled warheads, of which both the United States and Russia have thousands in storage.