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In This Issue

Medicare Savings: Cut Benefits to the Elderly or to Big Pharma's Windfall Profits?

Potentially central to any fiscal deal later this year are savings in the government's popular Medicare program that currently helps about 52 million Americans obtain health care. However, the way those savings are achieved will have vastly different consequences for older Americans.

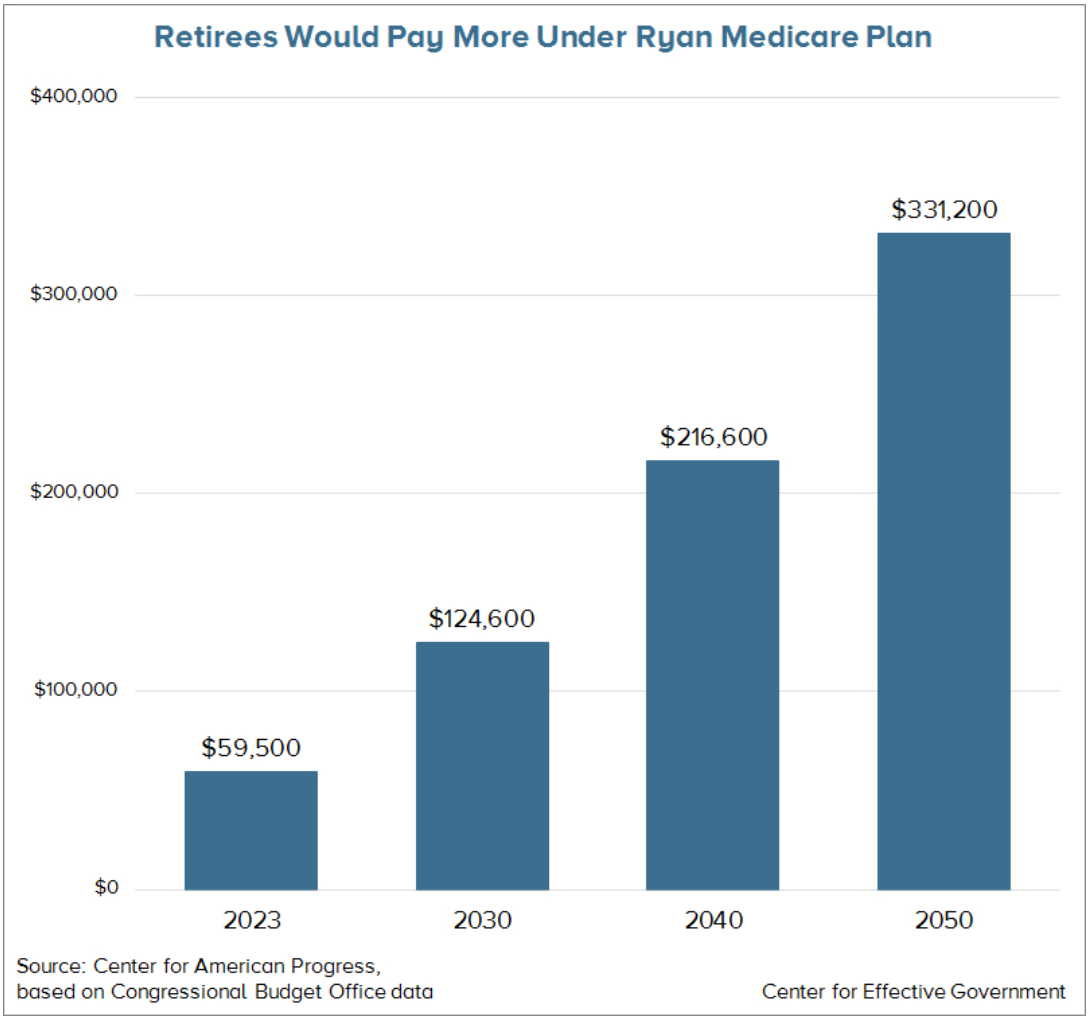
For example, Republican Rep. Paul Ryan's (WI) plan would undermine the ability of many tens of millions Americans to obtain affordable, quality health care, even after paying into the program with a lifetime of work, and put the program's effectiveness at risk.

Other proposals, including many made by the current White House, would protect beneficiaries and save money by improving the government's ability to wrestle value from parts of the for-profit health care industry, especially pharmaceutical firms that are among the economy's most profitable companies. (The average U.S. corporation makes a 2.2 percent profit; pharmaceutical companies make 16.4 percent on average). The White House's overall proposal is estimated to actually save more over

the long run than Ryan's, without hurting Medicare beneficiaries or the viability of the Medicare program.

The Ryan plan would change Medicare from a guarantee of health care (with associated premiums, co-payments, and deductibles) to a "premium support" program. In other words, it would be a voucher program – the voucher being a flat payment given to beneficiaries to obtain either Medicare coverage or to buy a private insurance policy. This would increase costs significantly for Americans because annual increases in the amount of this voucher would likely fail to keep pace with the growth in health care costs from year to year. Thus, beneficiaries would have to pay increasingly more out of their own pockets for insurance coverage, either through Medicare or from private insurers.

Under the Ryan plan, a person who is currently 30 years old, and who will turn 67 in the year 2050 (the Ryan plan also moves Medicare eligibility up two years from 65), would pay, on average, $331,200 more in out-of-pocket expenses over their retirement, according to the Center for American Progress. A current 40-year-old, who turns 67 in 2040, would pay $216,600 more. A 49-year-old, who turns 66 in 2030, would pay $124,600 more.



Medicare recipients already spend more in out-of-pocket health care expenses – both in absolute amounts and as a percentage of their income ($4,068; 14.3 percent) – than non-Medicare households ($2,125; 4.1 percent), according to a 2009 Kaiser Family Foundation study.

The main reasons for the higher out-of-pocket spending are age and income. Most Americans who receive Medicare benefits are 65 and older (some benefits go to younger people with severe disabilities like Lou Gehrig's disease and end-stage renal disease – in total about 8.7 million out of 52 million have disabilities), and Medicare recipients have low annual incomes. In 2012, the median income of Medicare beneficiaries was $22,500, according to an Urban Institute analysis.

According to the nonpartisan Congressional Budget Office (CBO), under Ryan's plan, the out-of-pocket expenses of Medicare recipients would more than double by 2030 compared to their costs under the current Medicare system. CBO put it simply: "Paying more for health care would be particularly challenging for elderly people with less savings and lower income."

Ryan's plan would also have the added effect of putting the viability of the Medicare program itself at risk because it would sap away new enrollees from the traditional Medicare program as some of them buy private insurance instead. Traditional Medicare would then increasingly cover a population that on the whole would be smaller, older, and sicker than it would be otherwise, and this population would be more expensive to insure on a per person basis, explains Paul Van de Water of the Center on Budget and Policy Priorities. This would, in turn, have added effects:

> [A]s the size of the Medicare population shrank, administrative costs would rise relative to benefit payments, traditional Medicare's power to demand lower payment rates from providers would erode, and providers would have less incentive to participate in the program. As a result, people now age 55 and older might well face higher premiums and cost sharing for traditional Medicare, a more limited choice of providers, or both.

This would unravel Medicare's effectiveness as a program and reduce its ability to leverage the purchasing power its size gives it to hold down health care costs for the rest of the economy – this would undo progress made in recent years and send the nation in the wrong direction.

There is no need to radically restructure Medicare to bring down costs. Indeed, health care reforms are already slowing the expected growth in the costs of the program.

"The Economic Report of the President shows in an illustrative calculation that it [Medicare spending] will rise only to 3.8 percent of GDP by 2085 -- not much higher than it is today -- if the per-beneficiary growth rate we have seen in the past five years keeps going," wrote Peter Orszag, former director of the Office of Management and Budget (OMB), in June. "If this happens, in other words, a major part of our long-term budget problem would disappear."

Cost growth could be curbed even more significantly with other modest changes that would make Medicare even more fiscally sustainable in the long run.

Two experts at the Urban Institute, after comparing spending in Medicare (and Medicaid) with private insurers, were critical of Ryan's approach and endorsed proposals more in line with those of the White House in a piece published in the prestigious *New England Journal of Medicine* last year. "We should continue adopting available strategies to contain costs within the programs' current structure, especially since many of those implemented in the past decade seem to be working, and many on the horizon appear promising," wrote John Holahan and Stacy McMorrow.

In contrast to Ryan's plan, President Obama's proposals are more balanced in how they would achieve cost savings and would preserve the structure of the Medicare program. The following reforms proposed by the White House, and a proposal made by the Department of Health and Human Services, would save substantial amounts of money.

Give Medicare Part D Power to Negotiate Drug Prices: $123 Billion

Medicare Part D is a program that subsidizes prescription drug purchases. For those whose income is less than 150 percent of the poverty line, a low-income subsidy helps pay for monthly premiums, annual deductibles, and drug co-payments. Low-income subsidy beneficiaries make up approximately 40 percent of all Part D beneficiaries, but they account for three-quarters of the government's spending on the program.1

When passing the law creating Medicare Part D in 2003, Congress explicitly barred the government from negotiating lower drug prices with manufacturers, even though the Department of Veterans Affairs (VA) and Medicaid do just that.

As a result, Medicare Part D pays about 58 percent more than the VA for the same drugs, according to a 2007 report by Families USA. One extreme example: "For Zocor (20 mg), a lipid-lowering agent, the lowest VA price for a year's treatment is $127.44, while the lowest Part D plan price is $1,485.96—a difference of $1,358.52, or 1,066 percent."

Similarly, "The Department of Health and Human Services Office of Inspector General has found substantial differences in rebate amounts and net prices paid for brand name drugs under Medicare and Medicaid, with Medicare receiving significantly lower rebates and paying higher prices than Medicaid—even for Medicaid beneficiaries also enrolled in Medicare," according to President Obama's Fiscal Year (FY) 2014 budget.

The White House proposes to allow Medicare Part D beneficiaries who qualify for a low-income subsidy (LIS) to benefit from the same prescription drug rebates that Medicaid recipients receive. OMB estimates the measure could save approximately $123 billion over the course of the next decade.

Increase Competition in the Pharmaceutical Industry: At Least $8 Billion

Increasing competition in the pharmaceutical industry in the Medicare and Medicaid programs could save an estimated $8-14 billion over ten years.

In an effort to curb increases in federal health care spending, the White House's FY 2014 budget directly addresses a rise in anti-competitive behavior by companies with respect to biologics, the medical products created by biologic processes rather than by chemical synthesis, such as vaccines, gene therapy, tissues, etc.

The White House supports two proposals that would increase access to biologic generics. First, by including measures to modify the length of "exclusivity," during which brand name companies are sheltered from competition, from 12 to seven years on new drugs and biologics, the president's plan would allow faster access to generic drugs, which bring down prices.

This measure also includes a proposition to prohibit additional periods of exclusivity for minor changes in product formulations through a process often referred to as "evergreening."2 In addition, the FY 2014 budget proposes allowing the Federal Trade Commission (FTC) to prohibit "pay-for-delay" agreements, or settlements between generic drug manufactures and brand-name pharmaceutical companies that delay bringing lower-cost medications to the marketplace.

According to the FTC, "pay-for-delay" anti-competitive practices reportedly cost consumers $3.5 billion annually in higher drug costs.

Over ten years, the president's proposal predicts $3 billion in savings through the Medicare and Medicaid programs by modifying the length of exclusivity, and $11 billion in savings through the prohibition of "pay-to-delay" agreements. Last year, the CBO estimated lower savings, or approximately just over $8 billion, from these two measures over the course of the next decade.

Align Medicare Policies on Bad Debt Payment with the Private Sector: $25 Billion

The White House has adopted a proposal by the Department of Health and Human Services Office of Inspector General (HHS OIG) that recommended the Centers for Medicare & Medicaid Services (CMS) "eliminate (or reduce) Medicare payments to hospitals for bad debt associated with beneficiaries' failure to pay their deductibles and coinsurance and modify Medicare's bad debt policies." Obama's proposal would reduce "bad debt payments from 65 percent generally to 25 percent for all eligible providers over three years starting in 2014."

These changes would align Medicare's policies with those of the private sector, which does not pay for bad debt. Currently, Medicare will pay "when hospitals fail to make a reasonable effort to collect unpaid deductibles and coinsurance from Medicare beneficiaries who can afford to pay or to collect from other sources (such as beneficiaries' other insurance or Medicaid) that would pay the amounts on their behalf." In the last fiscal year, Medicare paid 70 percent of these bad debts.

The White House estimates its proposal will save $25 billion over ten years.

Harness the Market to Make Medicare Advantage Providers Compete: Up to $177 Billion

Medicare Advantage was created by law in 1997 and allows Medicare beneficiaries to obtain their insurance from private providers, which Medicare in turn reimburses, as opposed to having Medicare

act directly as their insurer. In 2009, the Medicare Payment Advisory Commission (MedPAC) reported that Medicare paid Medicare Advantage beneficiaries 14 percent more on average – or $1,100 – than those covered by the traditional Medicare program.

MedPAC Chairman Glenn Hackbarth told Congress that these overpayments "contribute to the worsening long-range financial sustainability of the Medicare program."

The overpayments do not lead to better health care for beneficiaries; instead, they go to private insurers that act as middle men. According to the Center on Budget and Policy Priorities, "among private fee-for-service plans – the fastest-growing type of Medicare Advantage plan – about half of the overpayments goes to profits, marketing, and administrative costs."

The HHS OIG recommended that HHS ensure payments to Medicare Advantage providers are backed up by empirical data as one way to reduce overpayments.

One way to do this is by harnessing the power of the market through competition.

HHS has proposed the establishment of a competitive bidding system, which "would have allowed the market, not Medicare, to set MA [Medicare Advantage] payment rates." HHS estimated in 2010 that this would save $177.2 billion over 10 years.

Medicare Is Already More Cost Effective than Private Insurance

Some of the basis for conservative disdain for Medicare is the belief that the market, left to its own devices, can stem the rising costs of health care. However, health care costs are rising more in the private sector than they are for Medicare. Medicare has been part of the solution in controlling the rising costs of health care.

"Private health insurance spending per enrollee is projected to increase by 5.0% per year, about 1 percentage point faster than the GDP per capita. In contrast, Medicare expenditures per enrollee are expected to increase by 3.1% per year," wrote Holahan and McMorrow in the *New England Journal of Medicine*.

The Political Backdrop

In sum, we can save significant amounts of money without undermining Medicare and elderly Americans' access to health care. But you might not know this listening to politicians and commentators in the media.

"Many pundits seem unconsciously biased towards Medicare changes that hit beneficiaries (half of whom have incomes below $25,000), which they consider somehow more 'serious' in a budgetary sense than Medicare cost-saving changes affecting providers and health insurers or the prices that Medicare pays for prescription drugs," wrote Robert Greenstein, president of the Center on Budget and Policy Priorities, in a commentary in April.

Since the modest changes proposed by the White House and government agencies result in greater savings in the Medicare program – while protecting American's earned health care benefits – than the ideas championed by House Republicans, why are these proposals ignored? The short answer is politics.

Federal fiscal policy has lurched from one manufactured crisis to another since Republicans took control of the House after the 2010 midterm elections. In particular, House Republicans have used their power of the purse and their power to approve increases in the national debt to strong-arm the White House into agreeing to cutbacks in government programs.

So far, only discretionary spending – from the Defense Department to the U.S. Environmental Protection Agency – has been targeted. However, mandatory spending – on programs such as Social Security, Medicare, and Medicaid – makes up the majority of federal dollars spent.

As the nation approaches a new debt ceiling showdown sometime later this year, House Republicans will be targeting mandatory programs. Partially that's because "thanks to sequestration, discretionary spending has been slashed to the point where even conservatives say there aren't significant savings to be found," according to the *National Journal*.

But many Republicans are simply ideologically opposed to publicly funded health care.

To get a long-term debt deal, "one that gives Treasury borrowing authority for three and a half years, Obama would have to agree to" major changes to Medicare, several House Republicans told *National Journal*. "The plan to privatize Medicare, perhaps the most controversial aspect of the Ryan budget, is the holy grail for conservatives," noted the magazine.

Privatizing Medicare would cost more, not less. The fiscal challenges the program faces can be easily overcome by a few reforms that would reduce escalating payments to drug companies and private insurance companies and ensure Americans get quality health care at a reasonable cost – as they do today under Medicare.

Notes

[1] Congressional Budget Office, "Spending Patterns for Prescription Drugs Under Medicare Part D", December 2011.
[2] Ibid.

With New Leader in Place, EPA Can Recommit to Its Environmental Agenda

On July 18, the Senate confirmed Gina McCarthy to lead the U.S. Environmental Protection Agency (EPA), ending a 136-day delay. Nominated by President Obama in March, McCarthy was finally cleared by a bipartisan vote of 59-40.

Chosen to succeed former EPA Administrator Lisa Jackson, McCarthy is a seasoned environmental professional who led the agency's Office of Air and Radiation over the past four years. McCarthy's previous work to reduce air pollution made her a target for regulatory opponents and members of the coal industry during the confirmation process. McCarthy endured a difficult and protracted confirmation battle, answering more than 1,000 questions and meeting with at least 60 senators during the nearly five-month long process.

Environmental allies have high expectations for McCarthy, who will now continue the agency's current work to regulate power plant emissions and carry out the president's new climate change agenda.

Environmental Protections Under the Obama Administration

In the first term of the Obama administration, Jackson encountered sharp industry criticism and political resistance from Congress but was able to establish a number of agency priorities, including improved air and water quality standards, tougher chemical safety standards, and a new examination of environmental justice inequities. Observers expect McCarthy to advance these important priorities.

At the beginning of Obama's first term, EPA pledged to revise public health standards for each of the six major air pollutants identified in the Clean Air Act. McCarthy, then head of the air office, said in October 2009 that the agency would review the pollutants under the act's National Ambient Air Quality Standards program and determine whether changes to the standards were necessary by the end of 2011. Unfortunately, these efforts came under intense political pressure, and in September 2011, the president ordered the EPA to withdraw a rule that would have established a new standard for ground-level ozone pollution.

Nonetheless, EPA issued a number of new clean air protections, strengthening public health standards for nitrogen dioxide and sulfur dioxide. EPA also contributed to joint fuel efficiency standards by issuing limits on greenhouse gas emissions from vehicle tailpipes, an effort in which McCarthy played a crucial role.

By comparison, EPA's Office of Water has been far less active on the rulemaking front. Over the course of the Obama administration thus far, the water office has finalized fewer than 10 significant rules.

EPA also initiated a number of actions to strengthen oversight of toxic chemicals, but three proposed rules on chemical safety submitted for review in 2010 and 2011 remain stalled at the White House Office of Information and Regulatory Affairs (OIRA). And, although EPA proposed new standards for the regulation of coal ash in 2010, little progress has been made toward issuing comprehensive national standards.

EPA's Agenda Under McCarthy

A primary responsibility of McCarthy's will be implementing the president's climate action plan, released in June. The plan directs the EPA to finalize standards limiting greenhouse gas emissions from new and existing coal-fired power plants, which are responsible for the majority of carbon dioxide released into the air. McCarthy worked on a rule limiting emissions from new power plants,

but it has been stalled since it was first proposed in March 2012. Under the president's plan, EPA must complete a proposed rule for new power plants by Sept. 20, 2013, and the final rule is to be published within "a reasonable time," although no firm deadline is set.

The plan also directs the EPA to propose limits on emissions from existing power plants, an even more significant and challenging task, by June 1, 2014, and finalize the rule within the following year. This means EPA will have to get the rules through OIRA in two years. It will be up to the president and the newly appointed OIRA administrator, Howard Shelanski, to ensure that the rules move expeditiously through the review process.

EPA is also expected to complete its review of the ozone standard, which was extended when the agency withdrew its rule in 2011. The to-do list also includes reviewing and revising a number of air pollution standards that are out of date or have been sent back to the agency by the courts.

Clean air is just one piece of a hefty agenda. EPA also has unfinished business in water quality, chemical safety, and toxics control. There are incomplete actions pending on coal ash regulation, improvements in drinking water standards, and strengthening toxic chemical protections.

Environmental groups applauded McCarthy's confirmation and are eager for her to begin. Natural Resources Defense Council President Frances Beinecke said, "Her agenda includes safeguarding Americans from toxic chemicals in our air, water and land; and cleaning up pollution driving dangerous changes in our climate. That means standing up to naysayers who may try to block President Obama's climate plan and the special interests opposed to life-saving carbon pollution limits for the nation's power plants."

Standing up to opponents of environmental regulations will be crucial. McCarthy has worked under both parties throughout her career, but she has been a target of industry groups and politicians opposed to environmental protections. It took significant, behind-the-scenes negotiations between Senate Majority Leader Harry Reid (D-NV) and Senate Republicans to break through the "silent filibuster" that was holding up a vote on McCarthy's nomination. In spite of that success, congressional attempts to gut EPA regulations, limit the agency's authority, and slash its funding are ongoing, starkly illustrating the need for ongoing vigilance.

Public Safeguards Given Little Weight at Conference on Natural Gas Expansion

On July 25, the Bipartisan Policy Center hosted an event to explore the impact of the rapid expansion of shale gas on the U.S. economy, trade, and geopolitics. Most of the discussion from panelists focused on the economic opportunities that exports of liquefied natural gas (LNG) abroad would create for U.S. firms. But Sen. Ron Wyden (D-OR), in a keynote speech, highlighted the importance of strong public protections as the U.S. maps out its energy future. He cautioned that the United States needs to "look before we leap" as we make choices about expanded energy development.

Liquefied Natural Gas and the Permit Approval Process

Liquefied natural gas is natural gas that has been converted into a liquid by rapidly reducing its temperature. The liquefaction process substantially reduces the volume of the gas and makes it much cheaper to transport by ship over long distances. Once the liquefied natural gas reaches the import terminal of its new destination, it is heated and returned to its gaseous state.

In the United States, a company cannot import or export liquefied natural gas or construct terminals without first obtaining approval from the U.S. Department of Energy's (DOE) Office of Fossil Energy and the Federal Energy Regulatory Commission (FERC). FERC is responsible for authorizing the siting and construction of import and export facilities and ensuring that an environmental impact statement is completed in accordance with the National Environmental Policy Act (NEPA). The Energy Department is the lead agency that has authority to decide whether a project will move forward.

DOE is only authorized to approve a permit application if it finds that the project is "consistent with the public interest." The current public interest standard is not difficult to satisfy. A permit to export liquefied natural gas to a free trade partner is automatically considered to be in the public interest. If the firm applying seeks to export to a non-free trade partner, the public interest standard is still presumed to be satisfied, but DOE must publish the permit application in the *Federal Register* and solicit comment from the public about the proposal before it can be approved.

The Expanding Liquefied Natural Gas Market: Looking before Leaping

Only a decade ago, before the United States experienced a natural gas boom, the conversation about domestic energy policy centered on building import terminals. The government approved permits for the importation of liquefied natural gas, and 11 import terminals were built across the country. However, until recently, only one export terminal had been approved in the U.S. (in Alaska). But with the shale gas boom over the past decade, companies are now applying for permits to convert existing terminals to export terminals and to build new ones.

As of April 2012, DOE and FERC have approved a permit for Cheniere Energy to build liquefaction plants at its Sabine Pass terminal in southwest Louisiana and export to free trade and non-free trade countries. Despite opposition to the approval, in May 2013, the DOE approved another permit by Freeport LNG to export liquefied natural gas to non-free trade partner countries from a new terminal that will be built on the Gulf Coast in Quintana Island, TX. Currently, 19 applications to export to non-free trade countries are under review at DOE. DOE has already approved 23 applications to export to free trade countries (including the Sabine Pass and Freeport LNG projects); three applications are pending approval. The DOE has said it will speed processing of the export permits in 60-day intervals. The industry is pushing hard, warning that if the U.S. does not act fast, it will miss the window of opportunity to enter the global liquefied natural gas marketplace.

Public interest and environmental groups, like Sierra Club, are concerned that expanding liquefied natural gas exports will pose a substantial threat to public health and safety because of increased production of natural gas. They argue that DOE's public interest standard fails to adequately assess whether the projects will actually provide *public* benefits. In fact, expanded exports are expected to

cause a rise in the price of natural gas domestically, which would negatively affect U.S. consumers and industries, such as manufacturing and trucking, that rely on these low prices. And exporting natural gas is not expected to reduce climate-change causing emissions domestically or abroad. The Obama administration's efforts to forge two new free trade agreements have heightened these concerns, since the exporting license is automatically approved if the recipient is a free trade partner.

In addition to environmental concerns, looking at three past accidents shows why concerns about the safety of liquefied natural gas operations are also justified.

In January 2004, an accident at a steam boiler used in the liquefaction process caused a huge explosion in the Algerian port of Skikda, killing approximately 30 people and injuring 70 more. In addition to the lives lost, it cost Algeria between $800 million to $1 billion to rebuild the port, and up to an estimated $300 million in export revenue was lost. In 1944, 70 years prior to the explosion in Algeria, a gas leak and explosion from liquefied natural gas-related activities killed 128 people in Cleveland, OH. A smaller accident occurred in Cove Point, MD, in October 1979, when a leak led to an explosion in an electrical substation at a receiving terminal, killing one operator and injuring another.

The natural gas industry and its supporters argue that importing and exporting liquefied natural gas is safe and point to the small number of recorded accidents as evidence. But the U.S.'s role in the liquefied natural gas market has been relatively small to date, with only 11 import terminals and one export terminal operating since 1969. If all applications are approved, the industry would be permitted to export 29.9 billion cubic feet per day to free trade countries and 28.5 billion cubic feet per day to non-free trade countries.

As the global liquefied natural gas market expands dramatically, the possibility of accidents will, too. Since the terminals will be in port cities, the potential loss of human life will be significant, as will the possibility of leaks and damage to ocean life. The permitting process needs to stringently review and assess these risks to ensure public health and safety, not speed permits through to satisfy the voraciousness of the gas industry.

Updated Database Reveals Significant Chemical Risks Are Distributed Across the Country

The latest data on chemical storage risks shows that over 50 billion pounds of toxic and flammable chemicals are stored at 12,761 facilities nationwide. As the tragic explosions at the West, TX fertilizer plant and a Geismar, LA chemical plant have demonstrated, these facilities pose serious threats to workers and communities throughout the country. The distribution of high-risk chemical facilities – i.e., those that handle significant quantities of 140 dangerous chemicals – are available at a website the Center for Effective Government created and maintains through the Right-to-Know Network (RTKNET.org).

Risky Facilities

Under Section 112(r) of the Clean Air Act, the U.S. Environmental Protection Agency (EPA) requires facilities that contain threshold levels of certain toxic and flammable chemicals to submit a Risk Management Plan (RMP) to the EPA every five years (or more frequently if accidents occur). These plans contain an assessment of the potential hazards the chemicals represent if an accident occurs, worst-case scenarios, and the accident history of the facility. In addition, the plans must detail how the facility intends to prevent accidental releases of harmful chemicals and mitigate the damage from chemical releases that do occur.

Since 1999, the number of facilities with enough dangerous chemicals to have to register for the program increased from 2,590 to 12,761 – in other words, there has been an almost 400 percent increase in the number of facilities that report toxic or flammable materials over the last 14 years. During that same time, over 6,200 facilities have "deregistered," meaning they no longer house toxic or flammable substances or that the amounts held fall below the reporting thresholds set by the EPA. Therefore, just over 19,000 facilities have reported to EPA about significant storage of hazardous chemicals at some point in the past 14 years.

The five states with the most high-risk facilities are: Texas (1,935), California (1,457), Illinois (1,265), Iowa (1,165), and Kansas (937).

The Accident Rate at Dangerous Facilities

At facilities that store large quantities of toxic or flammable chemicals, accidents can quickly become major catastrophes for workers and residents of surrounding communities. Since 1999, high-risk chemical plants have reported 1,844 accidents that have resulted in 58 deaths, 17,054 injuries, and over $1.6 billion in property damage. Moreover, almost 263,000 people in surrounding communities had to be evacuated when the accidents occurred.

Although Delaware only has 44 RMP facilities, they have had 24 accidents, which gave it the highest accident rate in the country at 54 percent. These incidents resulted in one death, 32 injuries, and over $9 million in property damage, but no evacuations.

The state with the greatest number of injuries was California. A single accident at the Chevron Richmond Refinery in Richmond, CA, in August 2012 accounted for 14,112 injuries and required 55,000 residents to be evacuated. The explosion was attributed to a fire that resulted from a corroded pipe. California Occupational Safety and Health officials fined the company $963,200 for violations of state safety standards.

An accident in Kansas was the deadliest: a now-deregistered Centralia Fertilizer facility caused 12 deaths in 1998. The second-deadliest accident occurred when seven people were killed in the city of Anacortes, WA, at the Tesoro Anacortes Refinery in April 2010 in an incident attributed to the failure of a 40-year old heat exchanger. The Washington Department of Labor and Industries fined Tesoro $2.39 million after it identified 44 workplace violations and deemed the accident preventable.

Texas had the largest number of accidents – 264, and evacuated the largest number of residents – 123,738. Seven people were killed in six accidents at Texas facilities, and 12 people were injured. Moreover, Texas experienced over $730 million of property damage from these accidents. A single facility, the USA Big Spring Refinery in Big Spring, TX, caused over $385 million of damage and three injuries in 11 accidents.

The Distribution of Toxic Chemicals

Exposure to toxic chemicals can cause a range of serious injuries, from minor irritation to severe tissue burns, cancer, and death, depending on the level and type of exposure. These chemicals are particularly dangerous if they become airborne because they can expose children, the elderly, and families in nearby communities to risk with little warning. Anhydrous ammonia, for example, is used as a nitrogen fertilizer, and exposure to small quantities can cause burning of the eyes, nose, throat, and lungs, while greater exposure can be lethal due to throat swelling or chemical burns to the lungs.

Currently, registered facilities have reported 14.4 billion pounds of 71 different toxic chemicals. The most common toxic chemicals include anhydrous ammonia, chlorine, propylene oxide, vinyl acetate monomer, and acrylonitrile. These types of chemicals must be reported when quantities exceed a chemical-specific threshold. For example, a risk management plan must be submitted if a facility has more than 2,500 pounds of chlorine; ammonia must be reported if the quantity exceeds 10,000 pounds.

Texas has the greatest amount of toxic chemicals in the country, with more than 2.2 billion pounds stored in the almost 2,000 facilities across the state. The most abundant toxic chemical in the state is anhydrous ammonia (589 million pounds), but the most ubiquitous is chlorine (used at 662 facilities).

Illinois, Iowa, North Dakota, and Ohio are the only other states that store over 1 billion pounds of toxic chemicals. The Clarksfield Branch facility in Wakeman, OH, alone houses 1.1 billion pounds of anhydrous ammonia, which is the largest quantity of a toxic chemical in a single facility.

With respect to toxic chemical accidents, Louisiana has had a higher quantity of toxic chemicals (383,032 pounds) involved in accidents than any other state. The most common toxic chemicals in the state include anhydrous ammonia, chlorine, acrylonitrile, chloroform, and ethylene oxide, which are used in a range of commercial and industrial processes and pose a variety of health concerns.

The Distribution of Flammable Chemicals

According to the latest data, there are currently 42.2 billion pounds of flammable chemicals in registered facilities across the country. In addition to being explosive, many flammable chemicals pose serious inhalation and asphyxiation risks because they are gasses. Propane, for example, displaces oxygen. Low levels of inhalation exposure can cause weakness and heavy breathing, while high levels of oxygen displacement can cause permanent organ damage and death. With over 9 billion pounds nationwide, propane is the second most common flammable chemical at registered facilities, second only to flammable mixtures.

Texas facilities reported the greatest quantity of flammable chemicals: over 13 billion pounds. The state has had accidents involving 7.9 million pounds of chemicals, which include butane, ethane, propane, ethylene, and other flammable mixtures, exposure to which can cause a variety of ailments, from frostbite to suffocation and death. A facility located in Sour Lake, TX, stores just under 2 billion pounds of flammables, the greatest quantity in a single facility. The flammable mixture on-site is composed of propylene, propane, isobutane, butane, butene, and isopentane.

Arizona, California, Illinois, Kansas Louisiana, Michigan, and Mississippi are the only other states that report more than 1 billion pounds of flammable chemicals. Over the past 14 years, 479 accidents occurred at the 5,308 facilities in these states.

Though all states do report some level of flammable chemicals, Alaska, Alabama, the District of Columbia, Florida, Idaho, Maine, Massachusetts, Montana, New Hampshire, Oregon, Rhode Island, Vermont, and Virginia have not had any accidents associated with them.

Conclusion: The Public Needs to Understand Nearby Risks

The American people have a right to know about potentially dangerous chemical facilities that are operating near their homes, schools, and businesses. Access to this information is crucial for successful emergency planning and response, and it helps citizens and public interest organizations advocate for greater protections and safer chemical alternatives at the plants in their communities. To that end, the Center for Effective Government (then known as OMB Watch) created the Right-to-Know Network (RTK NET) in 1989.

The Center has recently updated information on high-risk facilities and others on the site, and we have published a new set of easy-to-use interactive maps of toxic and flammable chemical facilities and the facilities that had accidents. The updated data provide the public with the most current information (through June 2013) on chemical risks throughout the United States.

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