President's Cancer Panel: Environmentally caused cancers are 'grossly underestimated' and 'needlessly devastate American lives.'

"The true burden of environmentally induced cancers has been grossly underestimated," says the President's Cancer Panel in a strongly reported report that urges action to reduce people's widespread exposure to carcinogens. The panel today advised President Obama "to use the power of your office to remove the carcinogens and other toxins from our food, water, and air that needlessly increase health care costs, cripple our nation's productivity, and devastate American lives."

By Marla Cone
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The President's Cancer Panel on Thursday reported that "the true burden of environmentally induced cancers has been grossly underestimated" and strongly urged action to reduce people's widespread exposure to carcinogens.

The panel advised President Obama "to use the power of your office to remove the carcinogens and other toxins from our food, water, and air that needlessly increase health care costs, cripple our nation's productivity, and devastate American lives."

The 240-page report by the President's Cancer Panel is the first to focus on environmental causes of cancer. The panel, created by an act of Congress in 1971, is charged with monitoring the multi-billion-dollar National Cancer Program and reports directly to the President every year.

Environmental exposures "do not represent a new front in the ongoing war on cancer. However, the grievous harm from this group of carcinogens has not been addressed adequately by the National Cancer Program," the panel said in its letter to Obama that precedes the report. "The American people – even before they are born – are bombarded continually with myriad combinations of these dangerous exposures."

The panel, appointed by President Bush, told President Obama that the federal government is missing the chance to protect people from cancer by reducing their exposure to carcinogens. In its letter, the panel singled out bisphenol A, a chemical used in polycarbonate plastic and can linings that is unregulated in the United States, as well as radon, formaldehyde and benzene.

"The increasing number of known or suspected environmental carcinogens compels us to action, even though we may currently lack irrefutable proof of harm." - Dr. LaSalle D. Lefall, Jr., chair of the President's Cancer Panel

Environmental health scientists were pleased by the findings, saying it embraces everything that they have been saying for years.
Richard Clapp, a professor of environmental health at Boston University's School of Public Health and one of the nation's leading cancer epidemiologists, called the report "a call to action."

Environmental and occupational exposures contribute to "tens of thousands of cancer cases a year," Clapp said. "If we had any calamity that produced tens of thousands of deaths or serious diseases, that’s a national emergency in my view."

The American Cancer Society issued a statement Thursday agreeing with much of the report but taking issue with the part about how environmentally induced cancers are "grossly underestimated." [Editor's Note: American Cancer Society comments added May 7, 2010]

"Unfortunately, the perspective of the report is unbalanced by its implication that pollution is the major cause of cancer," said Dr. Michael J. Thun, the society's vice president emeritus of Epidemiology & Surveillance Research. He said the report gave short shrift to "the major known causes of cancer," including tobacco, obesity, sunlight and alcohol.

"There is no doubt that environmental pollution is critically important to the health of humans and the planet. However, it would be unfortunate if the effect of this report were to trivialize the importance of other modifiable risk factors that, at present, offer the greatest opportunity in preventing cancer," Thun said.

The two-member panel – Dr. LaSalle D. Lefall, Jr., a professor of surgery at Howard University and Margaret Kripke, a professor at University of Texas' M.D. Anderson Cancer Center – was appointed by President Bush to three-year terms.

Lefall and Kripke concluded that action is necessary to reduce exposures, even though in many cases there is scientific uncertainty about whether certain chemicals cause cancer. That philosophy, called the precautionary principle, is highly controversial among scientists, regulators and industry.

"The increasing number of known or suspected environmental carcinogens compels us to action, even though we may currently lack irrefutable proof of harm," Lefall, who is chair of the panel, said in a statement.

The two panelists met with nearly 50 medical experts in late 2008 and early 2009 before writing their report to the president. Cyclist and cancer survivor Lance Armstrong previously served on the panel, but did not work on this year's report.
In 2007, 69 million CT scans were performed.

The report recommends raising consumer awareness of the risks posed by chemicals in food, air, water and consumer products, bolstering research of the health effects and tightening regulation of chemicals that might cause cancer or other diseases.

They also urged doctors to use caution in prescribing CT scans and other medical imaging tests that expose patients to large amounts of radiation. In 2007, 69 million CT scans were performed, compared with 18 million in 1993. Patients who have a chest CT scan receive a dose of radiation in the same range as survivors of the Hiroshima atomic bomb attacks who were less than half a mile from ground zero, the report says.

The panel also criticized the U.S. military, saying that "it is a major source of toxic occupational and environmental exposures that can increase cancer risk." Examples cited include Camp Lejeune in North Carolina, where carcinogenic solvents contaminate drinking water, and Vietnam veterans with increased lymphomas, prostate cancer and other cancers from their exposure to the herbicide Agent Orange.

Overall cancer rates and deaths have declined in the United States. Nevertheless, about 41 percent of all Americans still will be diagnosed with cancer during their lifetime, and about 21 percent will die from it, according to the National Cancer Institute's SEER Cancer Statistics Review. In 2009 alone, about 1.5 million new cases were diagnosed.

For the past 30 years, federal agencies and institutes have estimated that environmental pollutants cause about 2 percent of all cancers and that occupational exposures may cause 4 percent.

Patients who have a chest CT scan receive a dose of radiation in the same range as survivors of the Hiroshima atomic bomb attacks who were less than half a mile
**from ground zero.** The panel called those estimates "woefully out of date." The panel criticized regulators for using them to set environmental regulations and lambasted the chemical industry for using them "to justify its claims that specific products pose little or no cancer risk."

But Thun of the American Cancer Society said that conclusion "does not represent scientific consensus. Rather, it reflects one side of a scientific debate that has continued for almost 30 years." [Editor's Note: added May 7, 2010]

The report does not try to estimate environmentally induced cancers but said the old estimates, dating back to 1981, fail to take into account many newer discoveries about people's vulnerability to chemicals. Many chemicals interact with each other, intensifying the effect, and some people have a genetic makeup or early life exposure that makes them susceptible to environmental contaminants.

"It is not known exactly what percentage of all cancers either are initiated or promoted by an environmental trigger," the panel said in its report. "Some exposures to an environmental hazard occur as a single acute episode, but most often, individual or multiple harmful exposures take place over a period of weeks, months, year, or a lifetime."

Boston University's Clapp was one of the experts who spoke to the panel in 2008. "We know enough now to act in ways that we have not done...Act on what we know," he told them.

"There are lots of places where we can move forward here. Lots of things we can act on now," such as military base cleanups and reducing use of CT scans, Clapp said in an interview.

Dr. Ted Schettler, director of the Science and Environmental Health Network, called the report an "integrated and comprehensive critique." He was glad that the panel underscored that regulatory agencies should reduce exposures even when absolute proof of harm was unavailable.
Also, "they recognized that exposures happen in mixtures, not in isolation" and that children are most vulnerable.

"Some people are disproportionately exposed and disproportionately vulnerable," said Schettler, whose group was founded by environmental groups to urge the use of science to address public health issues related to the environment.

Schettler said it "took courage" for the panel to warn physicians about the cancer risk posed by CT scans, particularly for young children.

“It’s almost become routine for kids with abdominal pain to get a CT scan" to check for appendicitis, he said. Although the scans may lead to fewer unnecessary surgeries, doctors should consider the high doses of radiation. “I'm very glad this panel took that on," Schettler said.

Another sensitive issue raised in the report was the risk of brain cancer from cell phones. Scientists are divided on whether there is a link.

Until more research is conducted, the panel recommended that people reduce their usage by making fewer and shorter calls, using hands-free devices so that the phone is not against the head and refraining from keeping a phone on a belt or in a pocket.

Even if cell phones raise the risk of cancer slightly, so many people are exposed that "it could be a large public health burden," Schettler said.

The panel listed a variety of carcinogenic compounds that many people routinely encounter. Included are benzene and other petroleum-based pollutants in vehicle exhaust, arsenic in water supplies, chromium from plating companies, formaldehyde in kitchen cabinets and other plywood, bisphenol A in plastics and canned foods, tetrachloroethylene at dry cleaners, PCBs in fish and other foods and various pesticides.

Chemicals and contaminants might trigger cancer by a variety of means. They can damage DNA, disrupt hormones, inflame tissues, or turn genes on or off.

"Some types of cancer are increasing rapidly," Clapp said, including thyroid, kidney and liver cancers. Others, including lung and breast cancer, have declined, largely due to declines in tobacco use and hormone replacement therapy.

Previous reports by the President's Cancer Panel have focused largely on treatment and more well-known causes of cancer such as diet or smoking.

The panel criticized regulators and industry for using "woefully outdated" estimates of environmentally caused cancers to set regulations and "to justify its claims that specific products pose little or no cancer risk." Some experts are concerned that the report might just sit on a shelf at the White House. But Clapp said the findings are so strongly stated that he is confident the report will be useful to
some policymakers, legislators and groups that want tougher occupational health standards or other regulations.

"We’re not going to get any better than this," Clapp said. "This goes farther than what I thought the President's Cancer Panel would go. I’m pleased that they went as far as they did."

Environmental health scientists said they hope the report raises not just the President's awareness of environmental threats, but the public's, since most people are unaware of the dangers.

"This report has stature," Schettler said. "It is a report that goes directly to the president."