The number of hospitalizations due to medication side effects jumped by more than half between 2004 and 2008, says a federal report that heightened concerns about polypharmacy among an aging U.S. population.

Antibiotics, anti-cancer drugs, benzodiazepines, corticosteroids, insulin, and blood thinners and other cardiovascular drugs were among the leading causes of more than 2.7 million hospital stays and treat-and-release visits to emergency departments in 2008, said the Agency for Healthcare Research and Quality report, released in April.

Opiates such as codeine and morphine were a principal culprit, implicated in 121,200 hospital stays and 44,300 ED visits. The latest confirmation of problems associated with painkillers came as the Obama administration launched an inter-agency attack on opioid misuse that a White House report dubbed "America's prescription drug abuse crisis."

Less than a quarter of the drug-related ED visits and less than 10% of inpatient stays were due to mistakes by physicians, pharmacists or patients. The rest were cases in which patients took prescribed medicines as ordered but had side effects severe enough to send them to a hospital.

Medication side effects were listed as the cause of 4.7% of all hospital stays and 0.8% of treat-and-release visits to the ED in 2008.

"This rise definitely outstrips the growth in the U.S. population -- this is not just a population issue," said Anne Elixhauser, PhD, lead author of the report and a senior research scientist at AHRQ. "We are trying to point out a significant and potentially increasing problem so that others with more detailed data can move forward to look at what's going on here."

The age of the population, not its size, may best explain the increase in drug-related hospital visits, said Sandra Schneider, MD, president of the American College of Emergency Physicians and an emergency physician at Strong Memorial Hospital in Rochester, N.Y.

"The graying of America is clearly starting, and it's only going to get worse. What we're seeing is a lot more extremely sick people taking many, many medications," she said.

A lot of the medications identified in the government's report are associated with well-known side effects, but that does not mean physicians are being careless in prescribing them, said Albert W. Wu, MD, MPH, professor of health policy and management at the Johns Hopkins Bloomberg School of Public Health in Baltimore.

"Physicians obviously need to be aware of the potential and likely adverse effects of the medications they prescribe," said Dr. Wu, who served on a 2006 Institute of Medicine panel on medication errors. "But we also need a stronger relationship with patients so that patients are aware of the potential adverse effects of the medications and know what to do if they should occur."

He said wider adoption of electronic prescribing could help physicians reduce the risks of prescription drugs and cut the number of medicines patients take.

Dr. Schneider agreed. "Because care is so fragmented and people are going to see so many doctors, sometimes the drugs overlap, and there's a drug-drug interaction. Doctor 1 doesn't know what Doctor 2 is doing."

**A new opioids strategy**

Improved access to drug records also is being pushed as part of a five-year White House plan that aims to achieve 15% cuts in nonmedical use of prescription drugs and opioid-related overdose deaths. Fatal poisonings from opioid overdoses tripled to nearly 14,000 between 1999 and 2006.

The Obama administration wants all 50 states to adopt prescription monitoring programs to help physicians and law enforcement track which drugs are dispensed to patients to counter "doctor shopping." The initiative also calls for makers of long-acting opioids to develop a plan by August to better educate physicians, other prescribers and patients about the risks associated with their products. Retail pharmacy dispensing of opioids rose from 174 million prescriptions in 2000 to 257 million in 2009, the White House said.

The government will launch a national campaign to inform patients about prescription drug abuse and how to safely store and dispose of their medicines. The Office of National Drug Control Policy will propose stricter supervision of
pain clinics within the next year. Also, the White House will lobby Congress to make Drug Enforcement Administration authorization to order any controlled substances contingent on completing training on opioid prescribing.

American Medical Association President Cecil B. Wilson, MD, said the AMA favors the White House plan but does not like the idea of requiring further physician education. "We remain concerned that a key element of this strategy that relies on industry to develop educational materials and initiatives to train prescribers could in the future become a mandatory part of the DEA registration process for prescribing controlled substances," Dr. Wilson said.

Physician organizations representing pain and addiction medicine specialists supported the initiative, saying it marks a shift from prosecuting "pill mills" to a more comprehensive approach to the problem.

Requiring physicians and other prescribers to receive training on prescribing opioids is overdue, said Perry G. Fine, MD, president of the American Academy of Pain Medicine.

"Some corrective action has to be made -- and it hasn't happened," said Dr. Fine, professor of anesthesiology at the University of Utah School of Medicine. "Now the reaction that comes is from the agencies that do have regulatory obligations to public health saying, 'We have to step in and do something.'"

### ADDITIONAL INFORMATION:

**Rise in drug-related adverse outcomes**

Of more than 2.7 million medication-related hospital visits, these top five drug categories accounted for 45% of hospital admissions and 19% of treat-and-release visits to the emergency department.

<table>
<thead>
<tr>
<th>Drug class</th>
<th>Hospital admissions</th>
<th>Treat-and-release ED visits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corticosteroids</td>
<td>283,700</td>
<td>13,300</td>
</tr>
<tr>
<td>Anticoagulants</td>
<td>218,800</td>
<td>29,200</td>
</tr>
<tr>
<td>Antineoplastic and immunosuppressive drugs</td>
<td>217,700</td>
<td>11,400</td>
</tr>
<tr>
<td>Antibiotics</td>
<td>131,300</td>
<td>95,100</td>
</tr>
<tr>
<td>Opiates</td>
<td>121,200</td>
<td>44,300</td>
</tr>
</tbody>
</table>


### WEBLINK


Copyright 2011 American Medical Association. All rights reserved.