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Exposing the Gaps

The Pew Prescription Project promotes consumer safety through reforms in the approval, manufacture, and marketing of prescription drugs

*"FDA needs additional tools to move our oversight capabilities into the 21st century. FDA needs to access regulatory information quickly, hold all parties responsible for the quality of products in the supply chain, and have reasonable and reliable options for enforcement."
(Principal Deputy Commissioner Joshua M. Sharfstein, 2010)*

*At least 80% of the active ingredients in U.S. prescription drugs now originate overseas.
(US Government Accountability Office, 2007)*

*Regulatory demands placed on the Food and Drug Administration far exceed its ability to respond.
(FDA Advisory Board, Subcommittee on Science and Technology, 2007)*

Safety Problems in the Drug Supply

For more on the safety of the prescription drug supply, visit:
http://www.prescriptionproject.org/initiatives/safe_drug_supply/

"The Drug Scare That Exposed a World of Hurt," *New York Times*, March 30, 2008

<http://www.nytimes.com/2008/03/30/weekinreview/30bogdanich.html>

An investigation links U.S. deaths to possible contaminants in batches of the commonly-used blood thinner heparin from China, highlighting problems in the foreign inspection system.

"After many near misses and warning signs, the heparin scare has eliminated any doubt that, here and abroad, regulatory agencies overseeing the safety of medicine are overwhelmed in a global economy where supply chains are long and opaque, and often involve many manufacturers."

[Since the article was published, the FDA has received reports of 149 Americans who died after receiving heparin, all of whom suffered one or more symptoms associated with a known contaminant. The deaths occurred over a 17-month period in 2007 and 2008.]

"J&J Gets Warning on Delayed Report of Tainted Pills," *Bloomberg*, January 15, 2010

<http://www.wwwbloomberg.com/apps/news?pid=20601124&sid=aFUzlh.mQf84>

J & J waits over a year before notifying the FDA of more than 70 complaints of strange odors, as well as reports of nausea and vomiting associated with pills tainted by chemicals used on shipping pallets. Late recalls issued only after an FDA warning highlight a key regulatory gap for the agency: the FDA does not have the authority to order drug recalls, even in the presence of safety information.

"The FDA said both recalls came after regulators pushed the company to expand the scope of its investigation at the Las Piedras, Puerto Rico, plant where the Tylenol was made."

“Tracing a poison’s global path back to China,” *New York Times*, May 6, 2007

<http://www.nytimes.com/2007/05/06/world/asia/06iht-toxic.1.5584126.html>

Antifreeze (diethylene glycol), falsely labeled as glycerin in China, is sold into international distribution, killing at least 120 people in Panama when it is used to mix cough syrup.

“The counterfeit glycerin passed through three trading companies on three continents, yet not one of them tested the syrup to confirm what was on the label. Along the way, a certificate falsely attesting to the purity of the shipment was repeatedly altered, eliminating the name of the manufacturer and previous owner.

As a result, traders bought the syrup without knowing where it came from, or who made it. With this information, the traders might have discovered — as *The Times* did — that the manufacturer was not certified to make pharmaceutical ingredients.”

“Counterfeit Drugs Path Eased by Free Trade Zones,” *New York Times*, December 17, 2007

<http://www.nytimes.com/2007/12/17/world/middleeast/17freezone.html?fta=y>

Free trade zones complicate the global distribution route for drugs, leading to a growing number of supplies with undocumented backgrounds, some of them counterfeits, reaching U.S. patients through online pharmacies with unscrupulous purchasing practices.

Canadian internet pharmacy RxNorth, formerly filling prescriptions for U.S. customers, was allegedly purchasing medicines that had traveled from China, to the United Arab Emirates, to Britain, to the Bahamas, and finally to Canada. An FDA seizure of an RxNorth shipment to the U.S. found counterfeits.

“The problem is that counterfeiters use free trade zones to hide — or sanitize — a drug’s provenance, or to make, market or relabel adulterated products, according to anticounterfeiting experts.”

“The Counterfeiter,” *The Scientist*, February 1, 2010

<http://www.the-scientist.com/article/display/57108/>

A Chinese national that ran a global counterfeiting network and was responsible for a recall of more than 70,000 units among 40 UK distributors is arrested in a sting operation for seeking to sell adulterated and counterfeit drugs into the U.S. drug supply. An estimated 30,000 units made their way to patients in the UK before the recall.

The counterfeiter, Kevin Xu, told undercover investigators that he had the ability to change lot numbers printed on drugs, meaning he had access to professional grade packaging facilities.

“The patchiness of the drug distribution network and the absence of a proper paper trail... has allowed unscrupulous middlemen to launder counterfeit medications within the legitimate supply chain that leads to a local pharmacy. Foreign-produced drugs are also illegally ‘diverted’ into the domestic supply chain.”

“Counterfeit Drugs,” *New England Journal of Medicine*, April 1, 2004

<http://content.nejm.org/cgi/content/short/350/14/1384>

Evidence of counterfeit or contaminated major drugs such as Lipitor, Zyprexa, and Procrit in the U.S. reveal lax penalties and poor regulatory framework that may open up U.S. to counterfeit and adulterated drugs. In this *Perspectives* piece, the authors look at possible improvements and solutions, including electronic pedigree, wholesaler licensure, and track-and trace technology.

"The minimal requirements for state licensure, the lack of inspections, and the historical practice of wholesalers' transacting business on the basis of a handshake have been cited as reasons why some counterfeit drugs make their way to pharmacies and patients."

"Supply Chain/Logistics Cargo Theft Emerges as a New Biopharma Worry,"
Pharmaceutical Commerce, December 24, 2009

http://www.pharmaceuticalcommerce.com/frontEnd/1345-pharmaceutical_logistics_theft_in_transit_cargo_security_coalition.html

Insulin stolen from a cargo truck in North Carolina appears months later on shelves of a Houston clinic; FDA receives reports of adverse events from patients who experienced poor glucose control after using vials from the stolen lot. Two months after the insulin is discovered in Texas, the FDA reports having recovered only two percent of the missing vials. This and other related incidents suggest cargo theft is one weak link in the supply chain.

"As the value for pharmaceutical shipments increases, so will the threat of highway piracy to interdict those shipments."

"Lax System Allows Criminals to Invade the Supply Chain," *Washington Post*, October 22, 2003

<http://www.washingtonpost.com/ac2/wp-dyn/A61473-2003Oct21?language=printer>

An overview of recent criminal activity in the supply chain shows how insufficient regulation allows stolen and fake drugs to be sold into legitimate distribution and reach unsuspecting patients through pharmacies.

By relabeling 110,000 bottles of low-strength cancer drug Epogen (\$22 a bottle) as high-strength Procrit (\$445 a bottle), counterfeiters made an estimated \$46 million before the operation was broken up in 2002. Despite the seizure, approximately 90 percent of the medicine never turned up, and may have gone to as many as 25,000 cancer and HIV patients.

"While FDA regulations explicitly demand that drug-makers tell the agency about many other problems with medications – from testing failures to adverse reactions - - manufacturers who know their product is being counterfeited are not required to report it."

"Medicaid is Start of Drug Resale Trial," *Washington Post*, October 22, 2003

A shadow market of drug suppliers and middleman buy and resell medications that have already been dispensed to Medicaid patients.

A 2002 wholesaler applicant inspection uncovered a "backroom operation" including "rags that reeked of lighter fluid," heat guns, \$75,000 worth of drugs and a trash can containing labels from 21 Medicaid patients, according to state records."

The article also cites a case involving a drug resale ring involving the growth hormone

Serostim that began selling to bodybuilders but sold back to pharmacies as well. "Court records document 300 participants and a \$18.9 million loss to California Medical between 2001 and [April 2002.]"

"U.S. Vulnerable to Potentially Contaminated Bulk Drug Imports," *Reuters*, May 10, 2000

Adverse events, hospitalizations and deaths associated with batches of gentamicin, an injectable antibiotic, sparked a Congressional inquiry and revealed potentially lethal gaps in the U.S. drug import oversight system. Some of the active ingredient in the gentamicin batches was labeled by U.S.-based broker Flavine International as having come from an FDA-approved plant, but was revealed to have instead originated in an unknown Chinese factory.

"Weaknesses in the U.S. import system governing bulk drugs has left the country vulnerable to potentially 'counterfeit, substandard, contaminated or poisoned products,' [former] House Commerce Committee Chair Tom Bliley (R-VA) has charged in a letter to [former] Food and Drug Administration (FDA) Commissioner Dr. Jane Henney."