

# Pharma RFID Adoption Still Slow

A survey by Health Industry Insights shows few drug makers and distributors are implementing the technology, or even evaluating it.

April 23, 2007—Despite several leading pharmaceutical companies' positive experiences in testing RFID, as well as encouragement from the [U.S. Food and Drug Administration](#) (FDA) to investigate the technology, a new study indicates RFID adoption in the pharmaceutical industry has been slower than expected.

Conducted by [Health Industry Insights](#), an [IDC](#) company, the survey found that only 16 percent of pharmaceutical companies are currently evaluating the benefits of RFID technology, and that three quarters of those evaluations have an annual budget of less than \$50,000. The survey queried 143 industry leaders with pharmaceutical manufacturers and distributors.

The survey results showed that only 12 percent of companies have actually moved beyond evaluation and are presently adopting RFID, mostly on a limited scale. Nearly 10 percent of respondents aren't even aware of the technology, and a surprising 40 percent are aware of the technology but not evaluating it at all. Just a tiny portion of respondents—3 percent—are actually implementing RFID in what they characterize as widespread adoption, with average budgets of more than \$3.3 million allocated for the technology.

Health Industry Insights attributes the lagging adoption to technology costs and an as yet unclear return on investment (ROI), as well as standards concerns and a lack of industry unification behind a single technology, either high-frequency (HF) or ultra-high frequency (UHF) RFID. While the HF-versus-UHF debate has diminished, it still exists (see [RFID Vendors Unite to Promote UHF for Items](#)). Additionally, no consensus has yet been reached as to which technology is best suited for item-level tracking in the pharmaceutical sector.

"We hear a lot of conversations as to why RFID adoption hasn't caught on," says Eric Newmark, senior research analyst with Health Industry Insights, who has been tracking RFID in the pharmaceutical industry for more than a year. "Larger companies have had the luxury of moving forward with RFID, but others are more in the position of having to justify the investments needed to get evaluations started, and they are waiting for a more valid ROI. Secondly, there's still ambiguity around the item-level frequency. I've personally talked to more than a dozen people who have project funding on hold because they are afraid to invest in the wrong infrastructure."

Newmark says that may be a mistake, noting, "Realistically, only about 10 percent of total RFID spending goes into frequency-related infrastructure."

Survey respondents cited tag costs and unproven ROI as the primary roadblock to RFID implementation. The lack of a frequency standard took second place, with security and privacy concerns coming in third. "People tend to group security and privacy together," Newmark says.

While the UHF Gen 2 specification offers a lot of improvement over Gen 1, Newmark says there are still some security measures lacking. What's needed, for example, is a way for a tag to authenticate an interrogator as it reads a tag, to ensure the reader is secure and legitimate.

Surprisingly, although the industry tends to be wary of governmental interference and mandates, survey respondents put the FDA's lack of pressure to support RFID in fourth place as a roadblock to the technology's adoption in the pharmaceutical market. Though the FDA stopped short of mandating the use of RFID to establish e-pedigrees, used to electronically document a drug's movement in the supply chain, it has asserted that RFID is "the most promising technology for implementing electronic track and trace in the drug supply chain," (see [FDA Issues New 'Counterfeit Drug Task Force' Report](#)).

Asked to rate the importance of certain criteria when selecting RFID technology for adoption, the companies surveyed chose read rates, security and cost as the top three characteristics, in that order. While frequency is considered a roadblock to adoption because of the HF-versus-UHF debate, survey respondents ranked frequency lowest in importance as a factor for choosing an RFID system. That suggests companies are "indifferent to frequency preference," the study says, and mostly concerned with options that are cost-effective, secure and reliable.

This may help to explain the industry's indecisiveness when it comes to which frequency to use. A whopping 88 percent said they don't know which RFID frequency will ultimately become the standard for item-level drug tracking. Only 6 percent chose UHF, while 4 percent selected HF. Two percent selected near-field UHF.

RELATED\_ARTICLES By mid-2007, [Purdue Pharma](#) plans to begin using Gen 2 [Impinj](#) Monza chips and interrogators equipped with near-field antennas in its pharmaceutical packaging lines. According to Newmark, Purdue has been using UHF RFID for a number of years to tag such items as bottles of its popular prescription painkiller (see [Purdue Moving OxyContin RFID Pilot to Full Production](#)), and is now looking to upgrade to near-field UHF for reading item-level tags.

"While a lot of people feel near-field UHF holds a lot of promise," he says, "there just isn't any large-scale data or proof out there about this."

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