E-cigarette tech takes off as regulation looms

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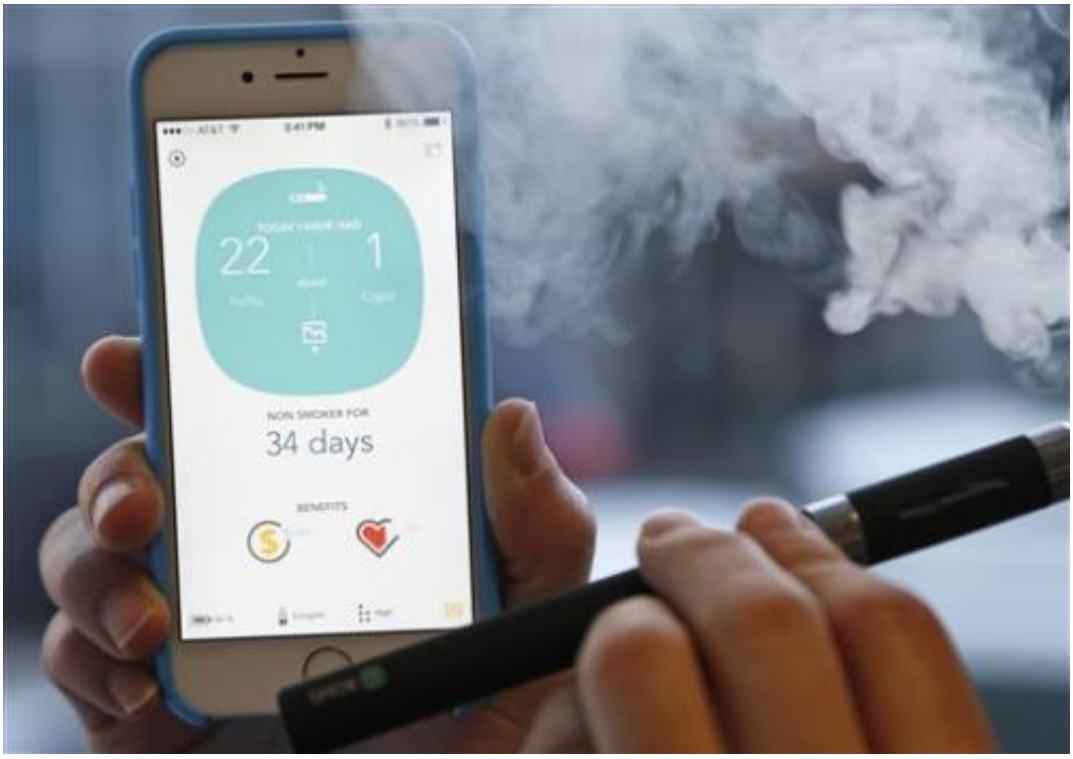

In this Wednesday, Nov. 19, 2014 photo, a smoker poses for photos while taking a puff on a Smokio, an electronic cigarette or vaporizer that connects to an iPhone and other smartphones via Bluetooth to track puffs, tally the cost-savings and possible health benefits from switching from regular cigarettes, in Richmond, Va. E-cigarette technology is developing rapidly and federal officials say the technology race could make creating standards for the devices, which heat a liquid to create vapor rather than burning tobacco, more difficult in the future. (AP Photo/Steve Helber)

Just a few years ago, early adopters of e-cigarettes got their fix by

clumsily screwing together a small battery and a plastic cartridge containing cotton soaked with nicotine.

Now, the battery-powered contraptions have computer chips to regulate puffs and temperature, track usage, talk to other electronic devices and even blink when "vapers" are near each other.

U.S. officials say the technology race could make creating standards the devices, which heat a liquid to create vapor rather than burning tobacco, more difficult in the future. Unlike traditional smokes that are simply chopped tobacco rolled in paper with a filter, e-cigarettes come in many shapes and sizes and the technological changes only make regulating them more of a headache.

At the same time, a rapidly growing market for e-cigarettes and the possibility that the devices could be safer than regular cigarettes have some in the industry worried that regulation that's too heavy-handed would stifle the technological innovation—and their businesses.

"I think it's fair to say that there will always be some degree of a gap between (data) and the latest innovations," Mitch Zeller, director of the U.S. Food and Drug Administration's Center for Tobacco Products, said in a recent interview with The Associated Press. "But that's the beauty of regulation because over time, regulation closes that gap. ... We will get to a point where new products have to come through us first."

It's unclear how quickly regulation will proceed, but the FDA seems to be taking a deliberate approach.

In April, the FDA for the first time proposed a set of regulations for e-cigarettes, including banning sales to minors and requiring health warning labels, as well as approving new products. The agency has said its proposal sets a foundation for regulating the products but the rules

wouldn't immediately ban the wide array of flavors or styles of e-cigarettes or curb marketing on places like TV.

Smokers like e-cigarettes because the nicotine-infused vapor looks like smoke but doesn't contain the thousands of chemicals, tar or odor of regular cigarettes. Some, known as "cig-a-likes," look like traditional cigarettes and use sealed cartridges that hold liquid nicotine. Others have empty compartments or tanks that users can fill their own liquid. Users also can buy different batteries and pieces to build their own e-cigarette.

Ultimately the FDA hopes to require e-cigarette makers to apply for approval for their products before they can be sold.

The nation's biggest tobacco companies, which have also started selling e-cigarettes, boast their own technology. Reynolds American Inc.'s Vuse-brand electronic cigarette contains a microprocessor and memory chip that regulate the power to heat the liquid nicotine for what the company calls the "perfect puff." Altria Group Inc.'s MarkTen has four holes on the mouthpiece that that make the puffs more closely resemble a traditional cigarette. Lorillard Inc.'s Blu e-cig brand offers a special carrying case that lights up when near another vaper or alerts the user when near a store that sells replacement cartridges.