

Conference speakers say medical devices are growing market as Americans get fatter, older

By [Jeff Haywood](#)

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GRAND RAPIDS -- For West Michigan manufacturers debating a move into [medical devices](#), consider this: the population is aging, overweight, and living longer.

For entrepreneur Mike DeVries, those conditions spell opportunity. But there are plenty of other trends to intrigue the crowd at Loosemore Auditorium on Grand Valley State University's Pew Campus on Thursday.

They came to hear updates on medical devices, drugs and diagnostic advances at Summit '09, sponsored by the [West Michigan Science & Technology Initiative](#).

Two big problems -- obesity and diabetes -- are top issues for life science specialists. Since 1990, when roughly 10 to 14 percent of the U.S. population on a state-by-state basis was obese, the data has gained significant heft.

By 2007, DeVries said, about 25 to 29 percent of Americans were obese, and the chart added a top category, for states where more than 30 percent of its residents were obese.

"Every medical device is challenged by this group of patients," DeVries said, "because they're not designed for that much weight."

"We're getting older and bigger, and the regulatory climate is more complex," said DeVries, an owner of EDF Ventures in Ada Township.

He showed devices that can thread a new aortic valve into position via catheter, and an alternative to bariatric surgery delivered by a tube down the throat.

Genetics are the biggest mover in diagnostics, said Daniel Farkas, laboratory director of the Sequenom Center for Molecular Medicine.

He anticipates a broader application for genetic tests.

"The same way genes control the aspects of who we are, they also determine how we're going to metabolize a drug," Farkas said.

Adverse drug reactions are the fourth leading cause of death in the U.S., he said, and more than 28 percent of hospitalized patients experience such reactions.

With "companion diagnostics," a patient can be screened for genetic "bio-markers" before a drug is given, to ensure the medication will be both effective and well tolerated. Drugs for heart disease and breast cancer are among those that could be cross-checked with the recipient's genetic profile.

"It's much smarter, on so many different levels, to do targeted genetic testing first," Farkas said. "Personalized medicine is moving from one-size-fits-all, to one-size-fits-most."

For Allegan-based generic drugmaker Perrigo Co. and others in the business of developing treatments, the aging population is a prime market, said Tom Cotter, director of U.S. consumer healthcare business development.

With the U.S. drug market expected to top \$300 billion this year, it outpaces sales of automobiles, alcohol, or tobacco, Cotter said. And most of the top-selling drugs treat conditions of aging: cholesterol, diabetes, cancer, or Alzheimer's.

Those drugs don't come cheaply, though. Among 2,900 new drugs being developed, only one in five will survive clinical trials and safety testing.

Cotter says he checked the availability of clinical trials for local participants, and found drug trials in Grand Rapids calling for 193 men and 223 women. The list is online at clinicaltrials.gov.

The testing begins with laboratory mice, moves to healthy patients, then those who are targeted by the drug.

The process can take 10 to 15 years.

"Alzheimer's costs nearly \$100 billion to treat," in the U.S., Cotter said.

If drugs being developed to cure or stall the disease reach the market, the payback would be tremendous, both in cost and lives saved, he said.

Perrigo's specialty, generic over-the-counter drugs, is a big issue in health care cost containment.

Cotter showed why retailers like their store brands: A chart comparing a brand-name cold syrup cost \$10, with one of Perrigo's generic store brands priced at \$7.

The big difference is the retailer keeps \$2.50 for the name brand, but pockets \$4 profit from the store brand.

Generic drugs won approval in 1984, when forecasters expected consumers to save up to \$1 billion a year -- eventually.

"Currently, they've saved \$1 billion every three days," Cotter said.

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