

Overview of Cleveland's Health Care Industry and BioEnterprise Initiative

November 14, 2007

Overview

- Regional Health Care Base: 2002
- Transformation: Role of State
- BioEnterprise and Entrepreneurship
- Lessons Learned

Cleveland Health Care Base

Nationally-recognized leaders in clinical care and research ...



- > \$450 Million in annual research

- Numerous nationally-distinctive programs including:

- Cardiovascular
- Cancer
- Neurology
- Orthopedics
- Surgery
- Pediatrics
- Medical imaging
- Biomedical engineering
- Stem cells & tissue engineering
- Advanced materials
- Molecular diagnostics
- Anti-infectives
- Prions

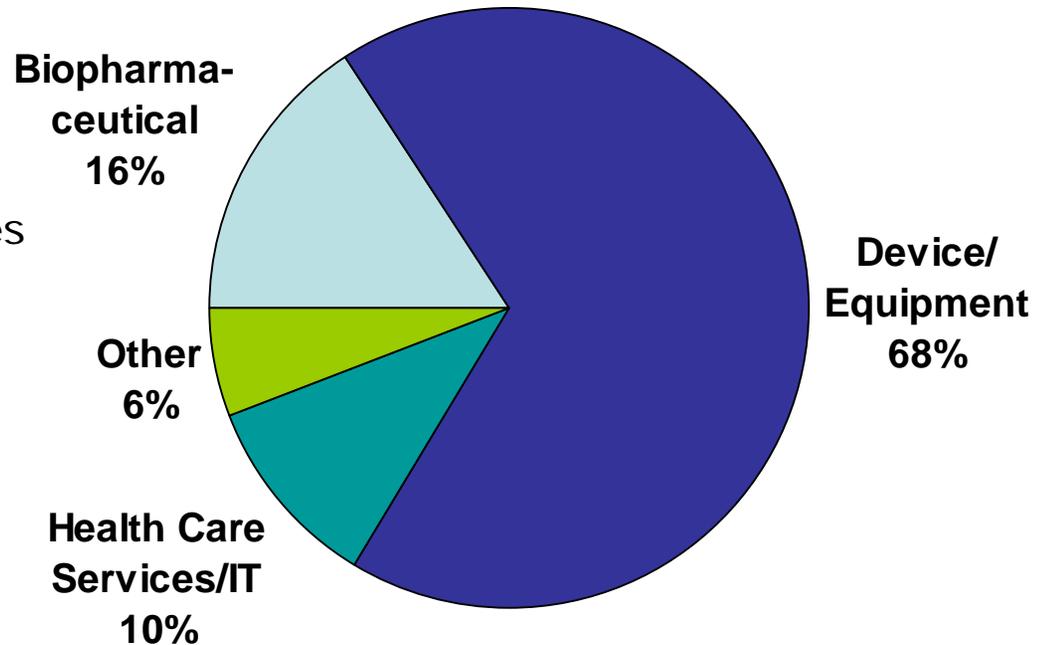
- Destination for innovation and care



Cleveland Health Care Base

... a broad industry base...

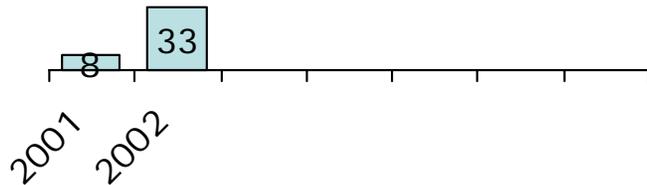
- ~500 health care companies in region
- Five >\$1 billion companies or divisions
- Over 20,000 employees



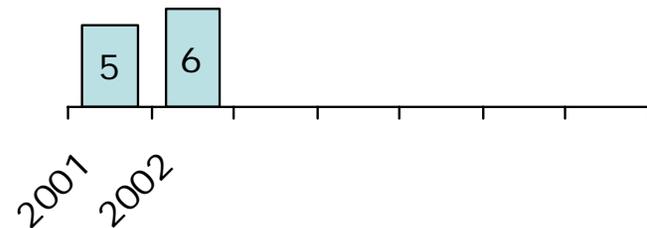
Weak Commercialization

...However, few companies were attracting growth equity

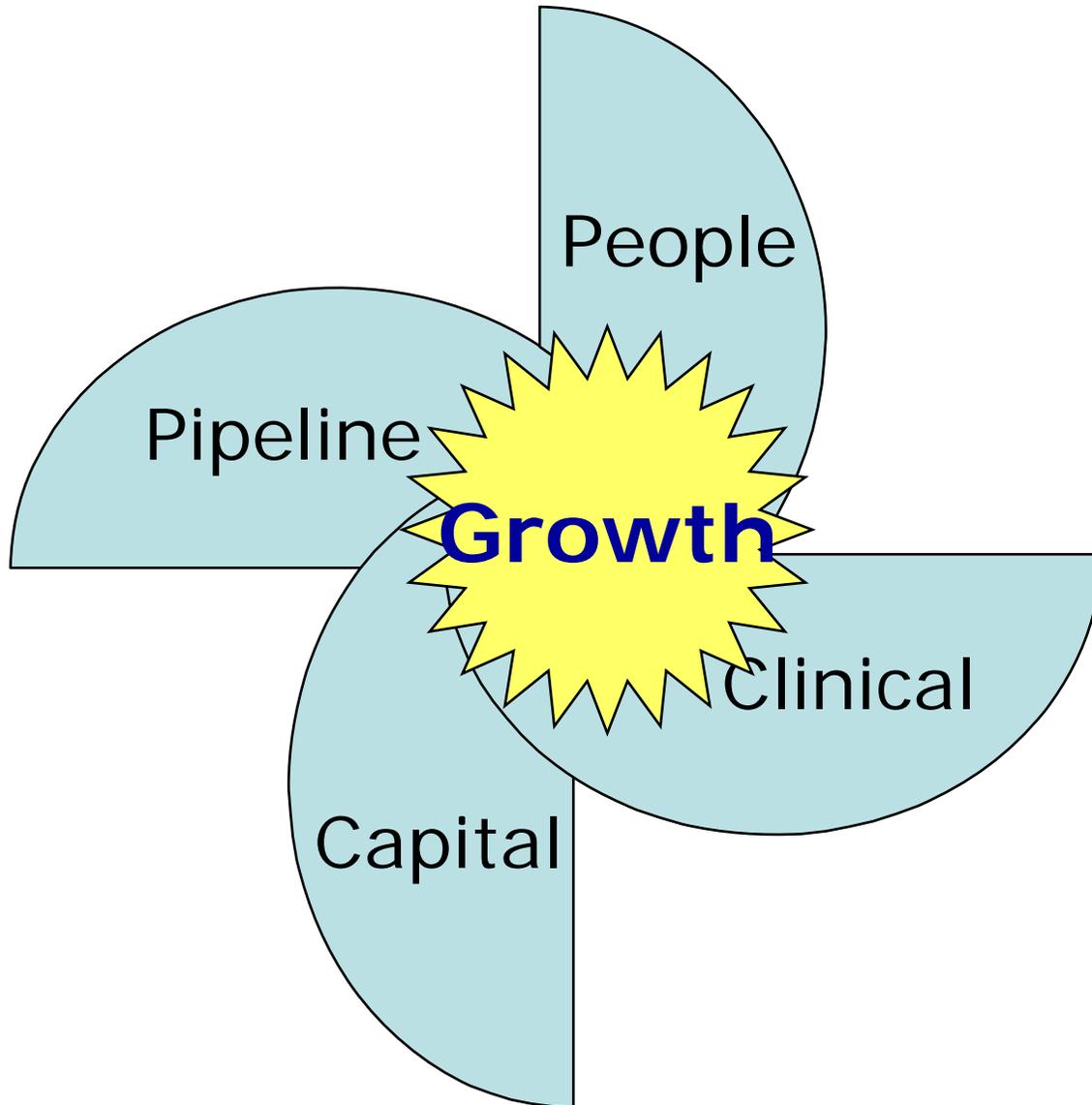
CLEVELAND AREA
HEALTH CARE VENTURE INVESTMENT
\$ Millions



CLEVELAND AREA
HEALTH CARE VENTURE INVESTMENT
Companies Financed



Broad Effort Required

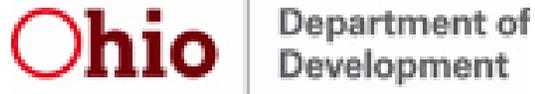


- Community-wide effort
- Collaboration
- Connectedness ... regionally and nationally

2002: Commitment to Growth

- Private
 - Renewed focus on entrepreneurs and innovation
 - Technology transfer culture capabilities significantly enhanced
 - Investment firms and professional services
- **Public**
 - **\$1.6 Billion in Third Frontier program**
- Philanthropic
 - Fund For Our Economic Future: \$60 million
 - Investments for capital formation

Third Frontier Initiative



- \$1.6 Billion, 10-Year Initiative
- Funding for:
 - Research distinctiveness and translation
 - Capital formation and attraction (seed and venture)
 - Entrepreneurial infrastructure (inc. BioEnterprise)
 - Company acceleration
- Characteristics of program:
 - Multi-institution collaboration required
 - Nationally competitive and nationally assessed
 - Leverage (9:1 ratios)

BioEnterprise Initiative



Mission

Be the leader in biosciences industry growth focused on recruiting and attracting entrepreneurs, **creating, accelerating, and retaining start-ups**, and nurturing and promoting a vibrant business environment

Approach

Market-back catalyst, consultant, and funding connector

Results

- Over 60 companies accelerated
- >\$565 million in new growth funding raised by companies
- Technology offices have completed over 160 deals and collected more than \$65 million in licensing revenues

Approach

Choose/create opportunities that are fundable...

- Regional entrepreneurs
- Institutions
- Foreign recruitment
- Company creation

...position companies to raise capital...

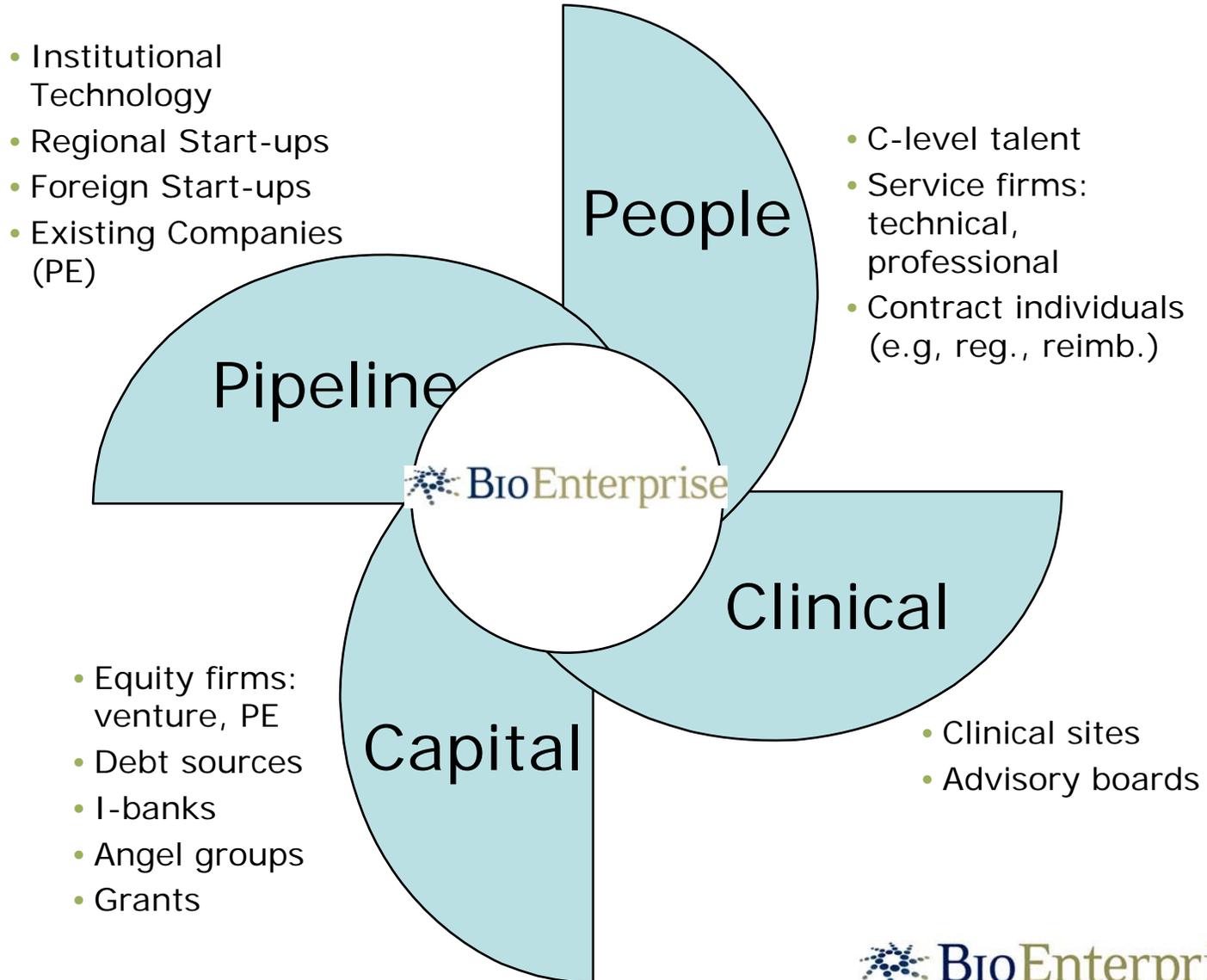
- Experienced management support
- Clinical and research collaborations
- Business development
- Network of bioscience capabilities

...from targeted, interested investors

- Access to capital
 - Venture/equity
 - Strategic
 - Debt
 - Grant

Market-back Approach

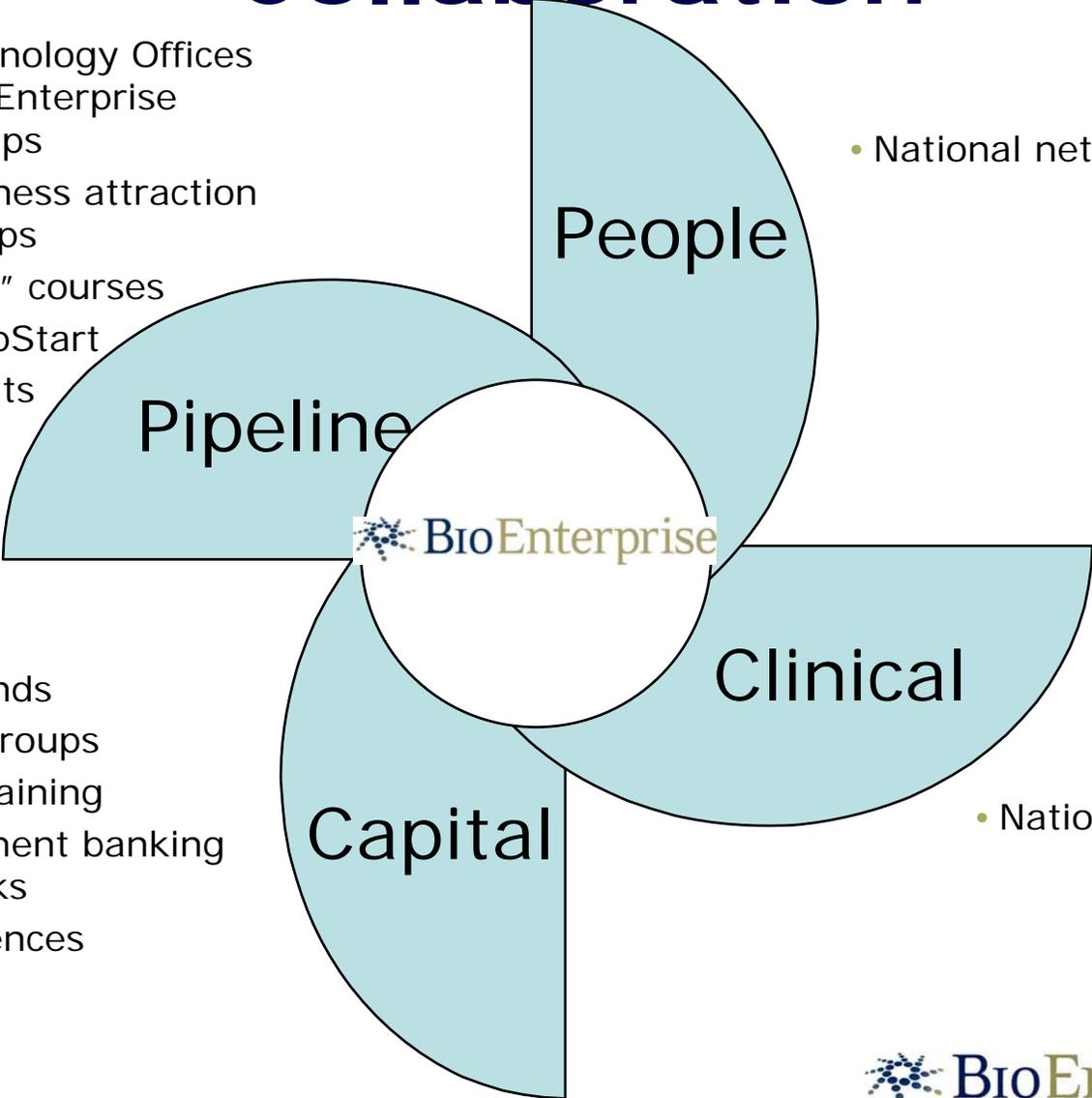
Role 1: Connector



Role 2: Catalyst ... Through Collaboration

- Technology Offices and Enterprise Groups
- Business attraction groups
- "101" courses
- JumpStart
- Events

- National networks



- National networks

Entrepreneurship Infrastructure

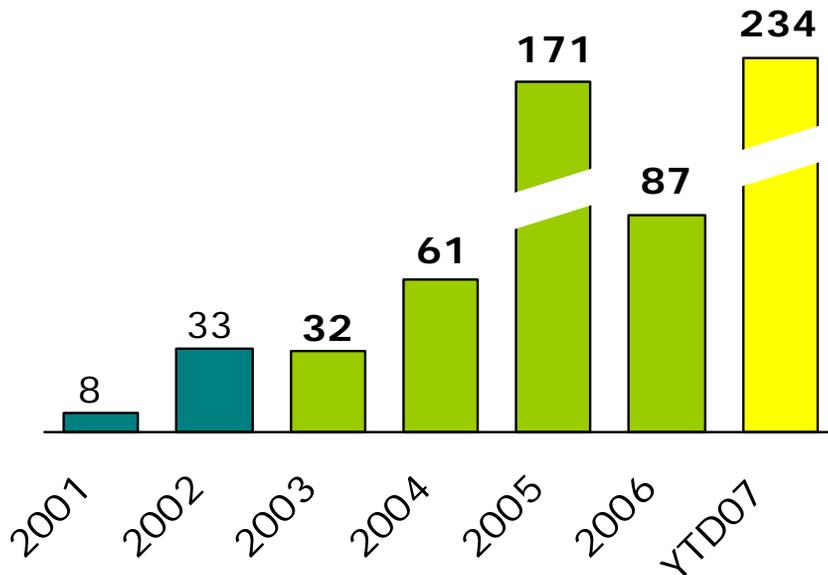
- Skilled and Resourced Intermediaries
 - BioEnterprise Initiative
 - Institutional Technology Offices
 - Combined >40 professionals
- Regional Healthcare Equity Environment
 - 11 venture firms (regional and national)
 - 4 Seed funds
 - 3 Angel groups and funds
 - 5 private equity groups
- Funded by private, philanthropic, and public sectors

Venture Investments

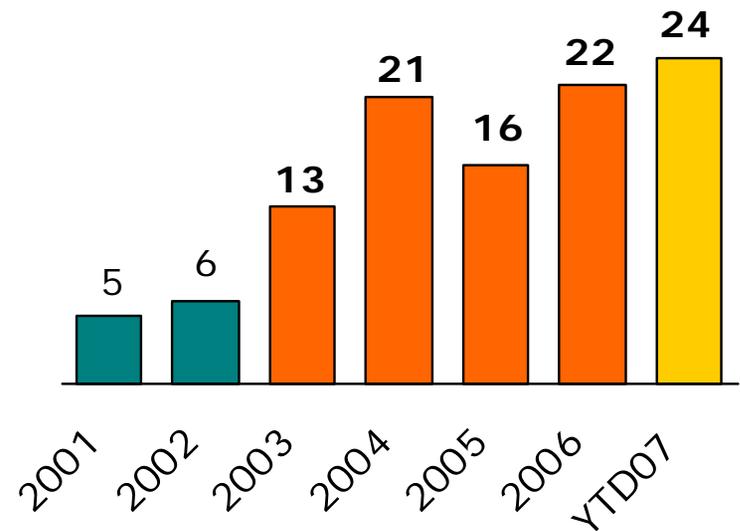
A vibrant, bioscience start-up environment...

EQUITY INVESTMENTS

\$ Millions



COMPANIES FUNDED



Investment Destination

...Which has attracted national investment dollars

EXTERNAL EQUITY INVESTORS IN CLEVELAND COMPANIES, 2004-Present

Midwest

- Beecken Petty
- Blue Chip Venture
- CID Equity
- Medtronic
- Ohio Tech Angel Fund
- Reservoir Ventures
- Thomas McNerney Partners
- Triathlon Medical Ventures

Boston

- Ampersand Ventures
- Bain Ventures
- Boston Scientific
- Capital Resource Partners
- Morgenthaler Ventures
- MPM Capital
- Norwich Ventures
- Polaris Ventures
- RA Capital

West Coast

- Angiotech AAdvance
- Compass Group
- DW Healthcare
- Hambrecht & Quist
- Palo Alto Investors
- SV Life Sciences
- Vivo Ventures
- Western Technology



New York Area

- Accipiter Capital
- Behrman Capital
- Cowen
- Domain Associates
- DSM Venturing
- Greatbatch
- Investor Growth Capital
- Johnson & Johnson
- Jordan Capital
- LSKW Investments
- MSD Capital
- North Peak Capital
- Oak Investments
- Orbimed Advisors
- Psilos Group
- Radius Ventures
- Sunrise Equity
- Welsh Carson

South

- ExOxEmis
- MB Ventures
- Pappas Ventures
- River Associates
- Texas Pacific

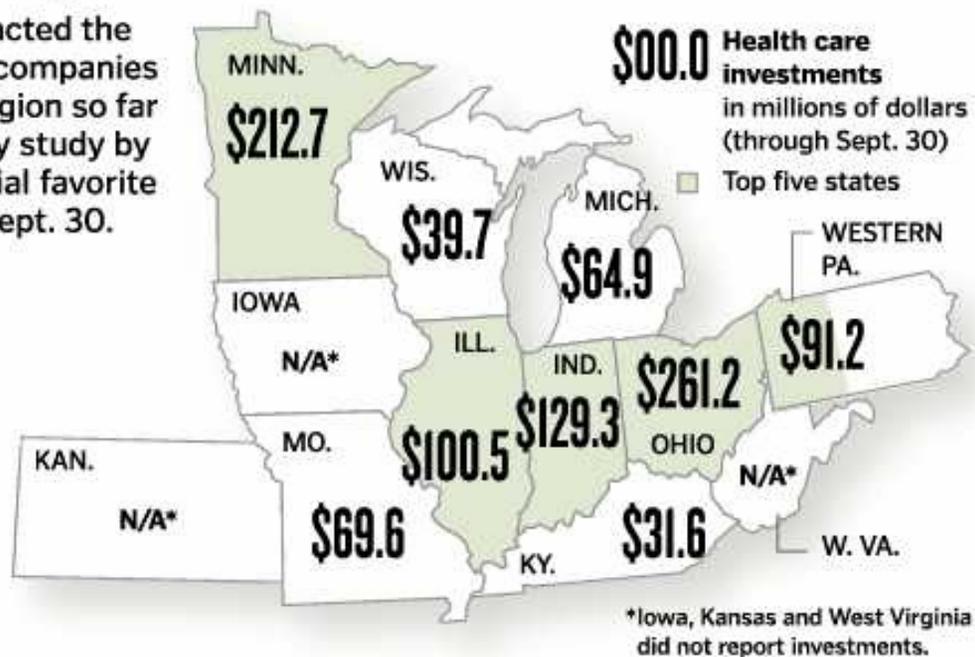
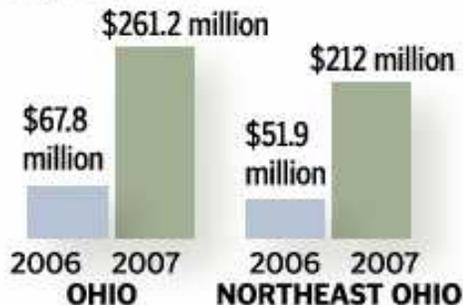
Midwest Health Care Investments, 2007

Where health care dollars go

Ohio health care companies attracted the most investment dollars among companies in 10 peer states and one peer region so far this year, according to a quarterly study by BioEnterprise. Ohio leads perennial favorite Minnesota by 23 percent, as of Sept. 30.

Health care investments

(through Sept. 30)



SOURCE: BioEnterprise Midwest Health Care Investment Report

THE PLAIN DEALER

Related Developments

- Global Conferences
 - CCF Medical Innovations Summit
 - IBF Global Healthcare Investing Conference
 - Clinical conferences
- Global Medical Mart (2009)
 - Permanent and temporary exhibition space for medical technology companies
 - Trade and clinical shows

Key Success Factors: BioE

- Small, invested Board
- Single metric with targets based on aspirational benchmarks
- Simple model, easy to communicate
- Private-sector approach
- Strong support and complementary developments