

## **Regional Report Northeast Indiana**

The Northeast Indiana data collection area was composed of LaGrange, Steuben, Noble, DeKalb, Whitley, Allen, Huntington, Wells, Adams and Wabash counties. Local economic development officials from counties in this area participated in the data collection process. The Northeast Indiana Regional Partnership (NIRP), a regional economic development organization representing the counties in the region, coordinated the effort and served as a champion for the project in Northeast Indiana.

### **Data Collection Process**

A kick-off meeting, hosted by NIRP, was held in Fort Wayne, Indiana at the Northeast Indiana Innovation Center on January 25, 2008. The purpose of the meeting was to provide an introduction to the project, train users on the survey instruments and officially begin the data collection process.

Four distinct survey instruments were created to facilitate the data collection process. The surveys were targeted to:

- For-profit companies doing business in the life science industry
- Healthcare providers
- Educational institutions
- Communities

For purposes of the project, the life sciences industry was broadly defined to include healthcare delivery, medical devices and equipment, pharmaceuticals, agriculture and veterinary products, private sector and university research, and support services.

Local economic development officials in each community were asked to disseminate the surveys to the appropriate parties in their community. The existing IHIF database was used as a starting point, although it was acknowledged that the database was incomplete. LEDOs were encouraged to add new companies to the list and remove any entities that should not be included.

The surveys were provided electronically in an Excel format and as an on-line application. Supporting documents, including an "About the Project" brochure, introductory letters, press releases and other public relations materials were provided by IHIF to support the data collection process.

Due to the overall project timeline, approximately one month was allocated for local data collection efforts.

### **Focus Groups**

To support the data collection efforts, a focus group was held in Fort Wayne on March 6, 2008. The purpose of the focus group was to expand upon the written data gathered through the survey process and allow for discussion of the area's strengths and weaknesses as related to growth of the life sciences industry.

Attendees at the focus group included representatives of local hospitals, universities, companies, economic development organizations and service providers.

### **Focus Group Findings**

The focus group discussion covered a wide range of topics, including strengths and weaknesses, perceptions, education, infrastructure and business climate. Participants were asked to think about where the life science industry is going and how Northeast Indiana fits into its future development.

Hospitals were viewed as an important strength of the area. Parkview and Lutheran both have a clear recognition of the importance of research. Focus areas include cancer, cardiac, orthopedics and brain function (especially Alzheimer's and stroke). Local hospitals recognize that research opportunities help attract and keep top physicians. Physicians in Fort Wayne enjoy incomes among the highest in the nation. Combined with Indiana's overall low malpractice insurance cost, the area is very attractive to healthcare professionals. Major investments in facilities and equipment have been made in hospitals throughout the region, with additional expansions planned in the near future. Specialty care areas include transplants, orthopedics (working in cooperation with companies in the Warsaw area) and trauma. Companies, such as New Paradigm Concepts, are beginning to develop products based on local healthcare provider research.

Like all of Indiana, the northeast section of the state has a strong manufacturing heritage. Many machine shops have successfully made the transition from the automotive industry to the life science industry. Most of these companies support the orthopedics cluster in Warsaw. Focus group attendees were generally complimentary about the skills and work ethic in the area. It was noted the employees have the skills to solve problems and create solutions. However, it was noted that a large investment in training is needed to continue the transition from traditional manufacturing to the life science industry.

Support services for the life sciences industry are considered very strong in the area. Health IT emerged as a promising area for future development, with a notable strength in informatics. Logistics, with the presence of FedEx, UPS, a good regional airport and central location, is also an area of future interest for the region.

Participants acknowledged that educational attainment is an issue for the future of the industry. There are efforts underway to increase opportunities in the region, such as the expansion of the medical program at IPFW to a four-year medical school. No PhD programs are available locally and this was viewed as a drawback for attracting top talent.

Overall, participants feel very positive about the future of the life sciences industry in Northeast Indiana. It is believed that the assets of the region are very strong, but generally unknown outside the area. It is believed that more recognition of the life sciences industry in the region will spur further development.

### **Data Collection Results & Existing Business Analysis**

At the beginning of the process, IHIF's database contained data on approximately 80 life science entities in the 10-county region. These entities include companies, educational institutions and healthcare providers. Comprehensive research was conducted by the economic development organizations in the region, resulting in the identification many new companies that were included in the survey distribution list. Surveys were disseminated to targeted contacts, resulting in 127 completed surveys. In total, 76 new companies were added to the list and 23 were removed from the list, resulting in 156 life sciences companies in the final database. Information on these 156 companies is included in the region's asset map. The complete database of companies included in the asset map is available at [www.ihif.org](http://www.ihif.org).

It is important to note that the asset map is not all-inclusive. The data collection process, as outlined above, was as comprehensive as possible. However, as with any survey, the response rate was not 100%. Although independent research was conducted, there is no doubt that assets are missing. The Indiana Health Industry Forum will continue to add to the database and the asset map in the future

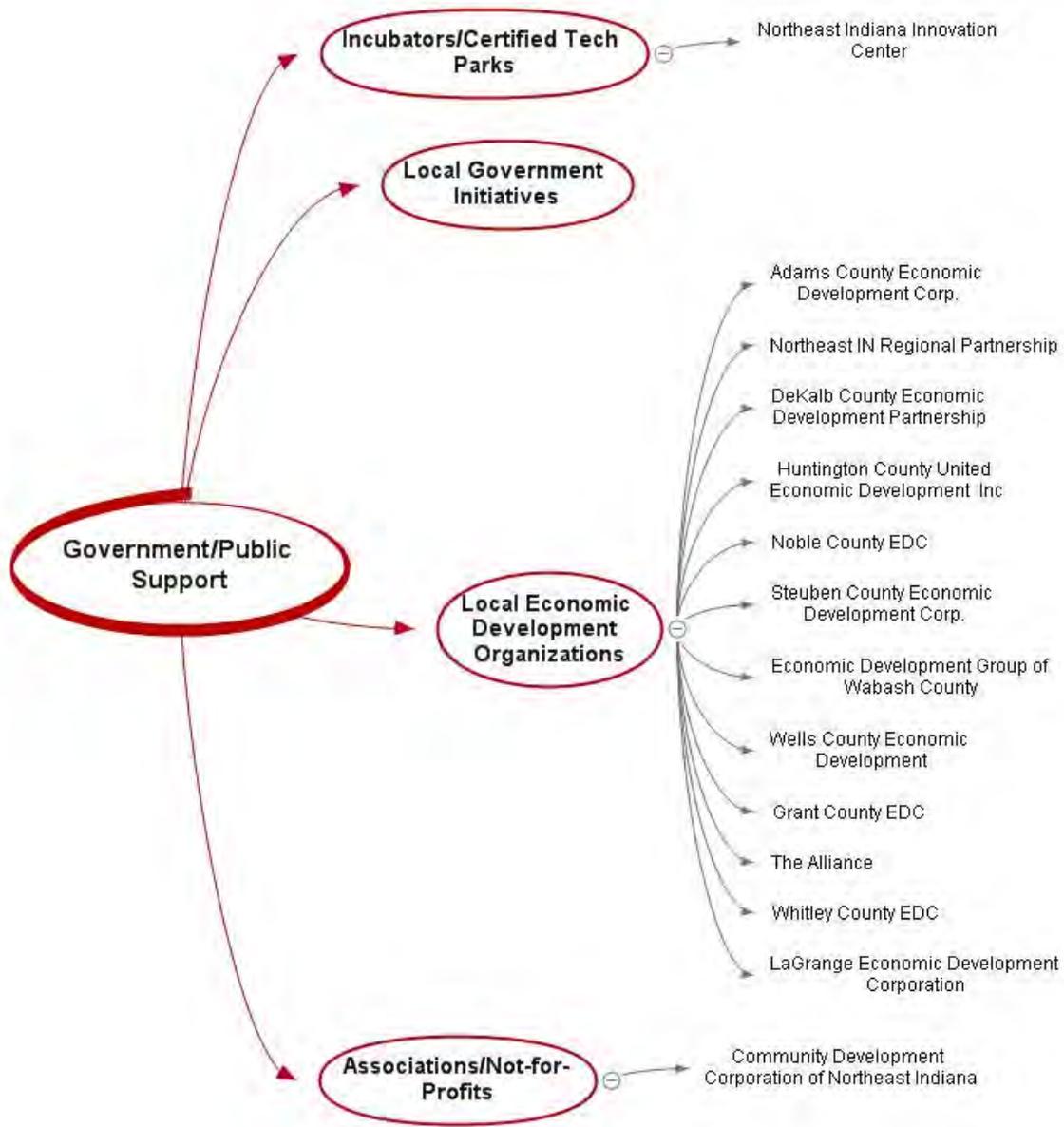


**Existing Business Structure  
Asset Map**

The asset map for the Northeast Indiana region creates a visual representation of the life sciences industry in the region, broken down between the service sector and the production sector. Areas of strength and weakness in the industry clearly emerge. Overall, the map is very strong, with activity in nearly every sector of the industry. The discussion below provides more detail about major branches of the asset map.

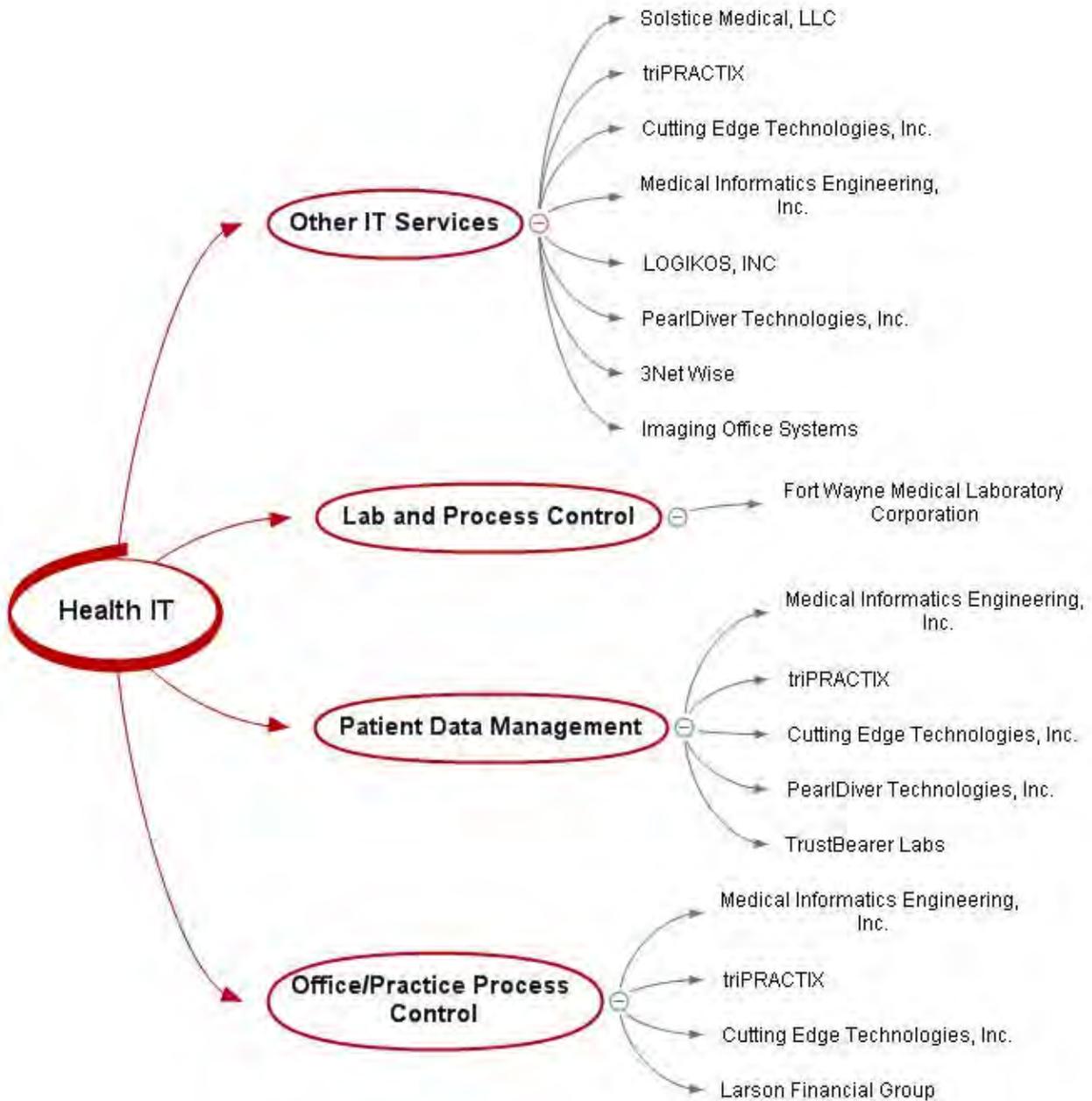
Please note that the asset map is not all-inclusive. The data collection process, as outlined above, was as comprehensive as possible. However, as with any survey, the response rate was not 100%. Although independent research was conducted, there is no doubt that assets are missing. The Indiana Health Industry Forum will continue to add to the database and the asset map in the future.

**Government/Public Support**



This branch of the asset map includes those government and non-profit entities that support the development of the life science industry, locally and state-wide. The availability of two strong tech parks in the region will assist in the expansion of entrepreneurial activity in the region.

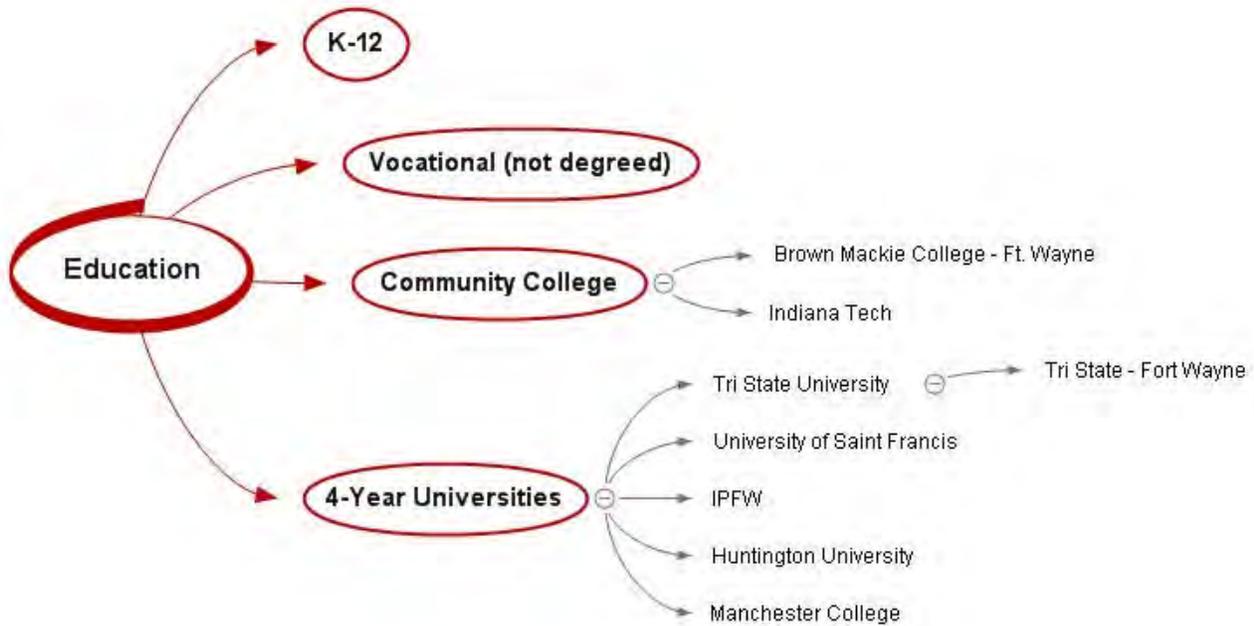
**Health IT**



The Health IT branch of the asset map represents those companies that provide information technology solutions specific to life science applications. These applications may include patient data management, lab or process control, medical practice management or other types of data management tools

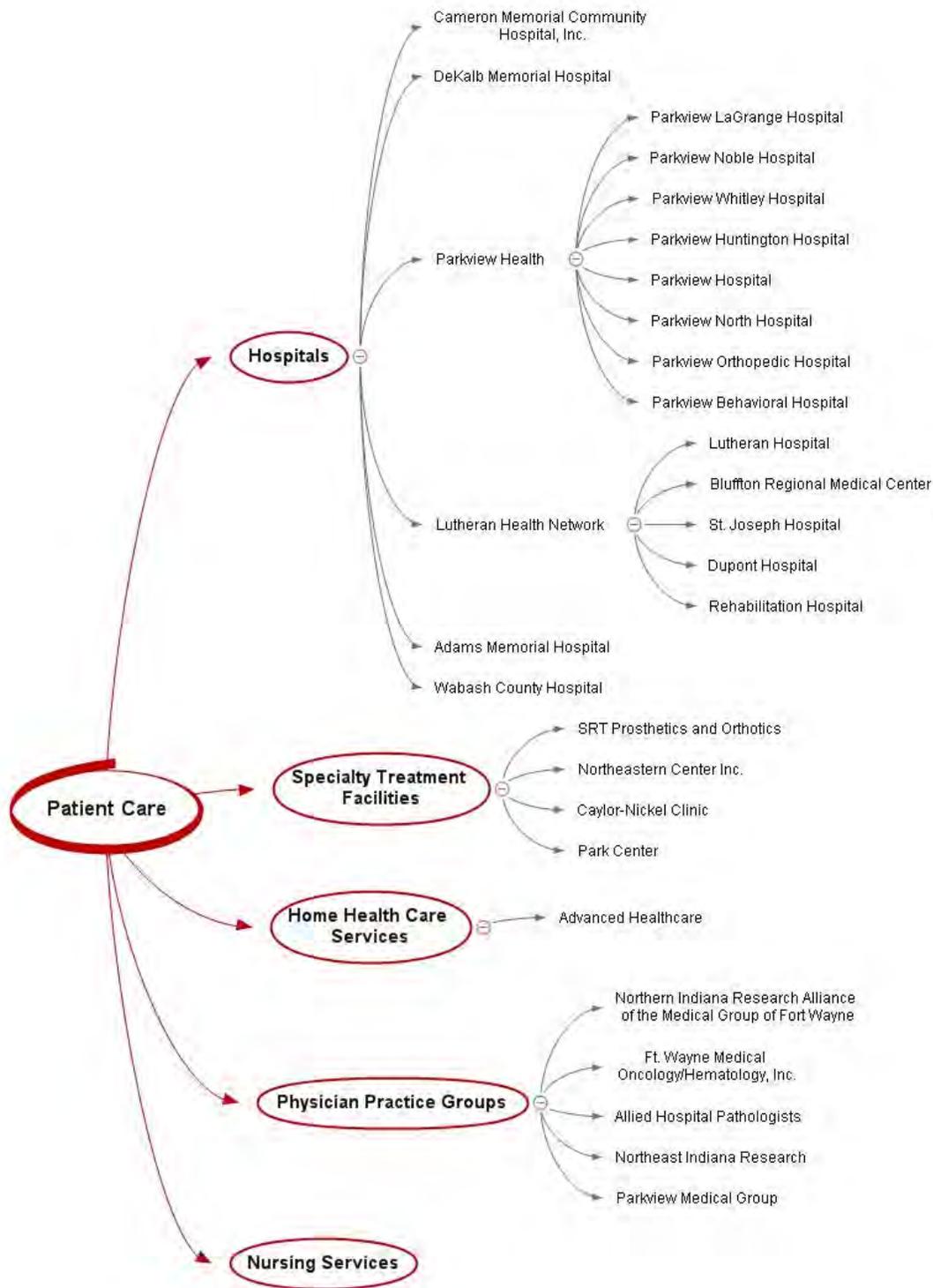
The Northeast Indiana region has strength in informatics, specifically through companies like PearlDiver, which is focused on informatics for orthopedics, and Medical Informatics Engineering, which is doing extensive work with patient data. Given the informatics and health IT strength in Northeast Indiana, there is an established workforce and network of businesses to tap for future growth.

## Education



This branch of the map represents the educational institutions located in the Northeast Indiana region. K-12, non-degree, community college and 4-year university programs are included. Northeast Indiana has strong higher education opportunities. Tri-State, St. Francis and Huntington Universities and Manchester College are in the region, with Taylor and Ivy Tech nearby. Community college offerings in life sciences are also available at Brown Mackie and Indiana Tech. Indiana-Purdue Fort Wayne (IPFW) offers numerous graduate and undergraduate life-science related degree programs in fields such as nursing, biology, chemistry and engineering. Two years of medical school, soon to be expanded to four, are offered at IPFW through the IU School of Medicine. There is a need for PhD programs in the area to attract and keep researchers in the area.

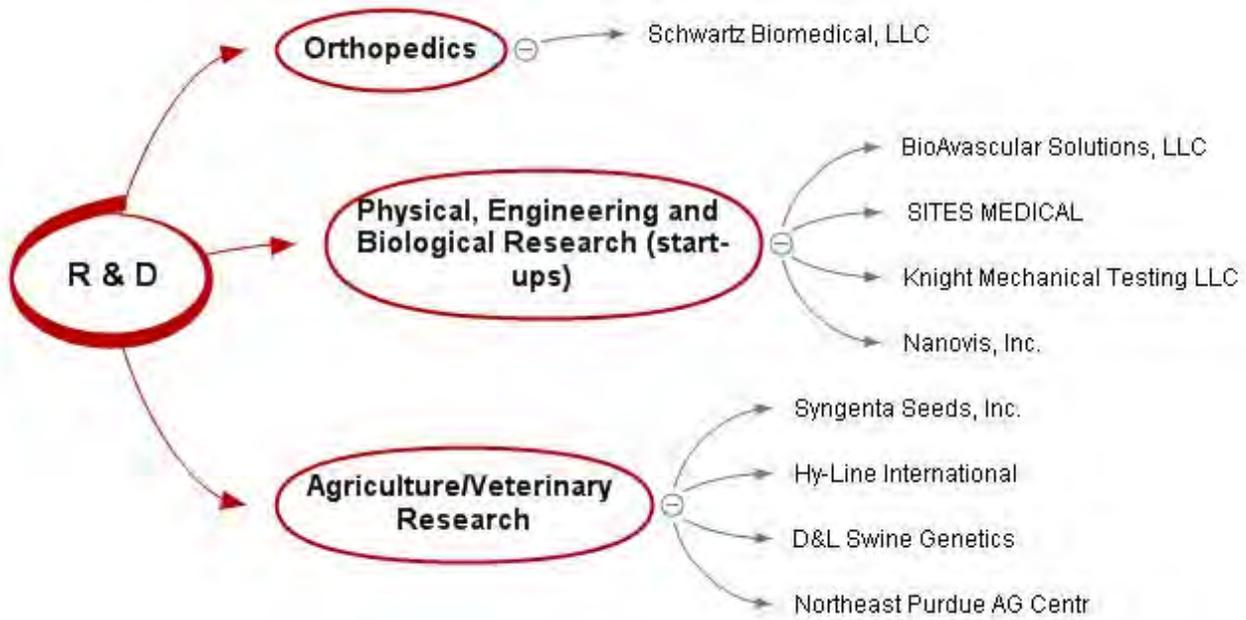
**Patient Care**



All aspects of patient care are represented in this branch of the asset map. Fort Wayne is the hub of the regional economy in Northeast Indiana and area hospitals play a key role. Lutheran and Parkview serve a multi-county area and have facilities in many of the rural communities. Advanced services are offered, such as cardiac transplants, high-level trauma care, and orthopedics in collaboration with major companies in the Warsaw area.

Sophisticated research is being conducted by local physicians, specifically in the areas of brain function, Alzheimer’s and stroke. Innovation is valued and research is considered important not just for patient care, but also for attracting and keeping talented physicians in the area. Hospitals are seeking ways to continuously improve their ability to retain talent at all levels. Partnerships have been formed with local universities and community colleges, supporting educational programs for healthcare workers.

**Research & Development**

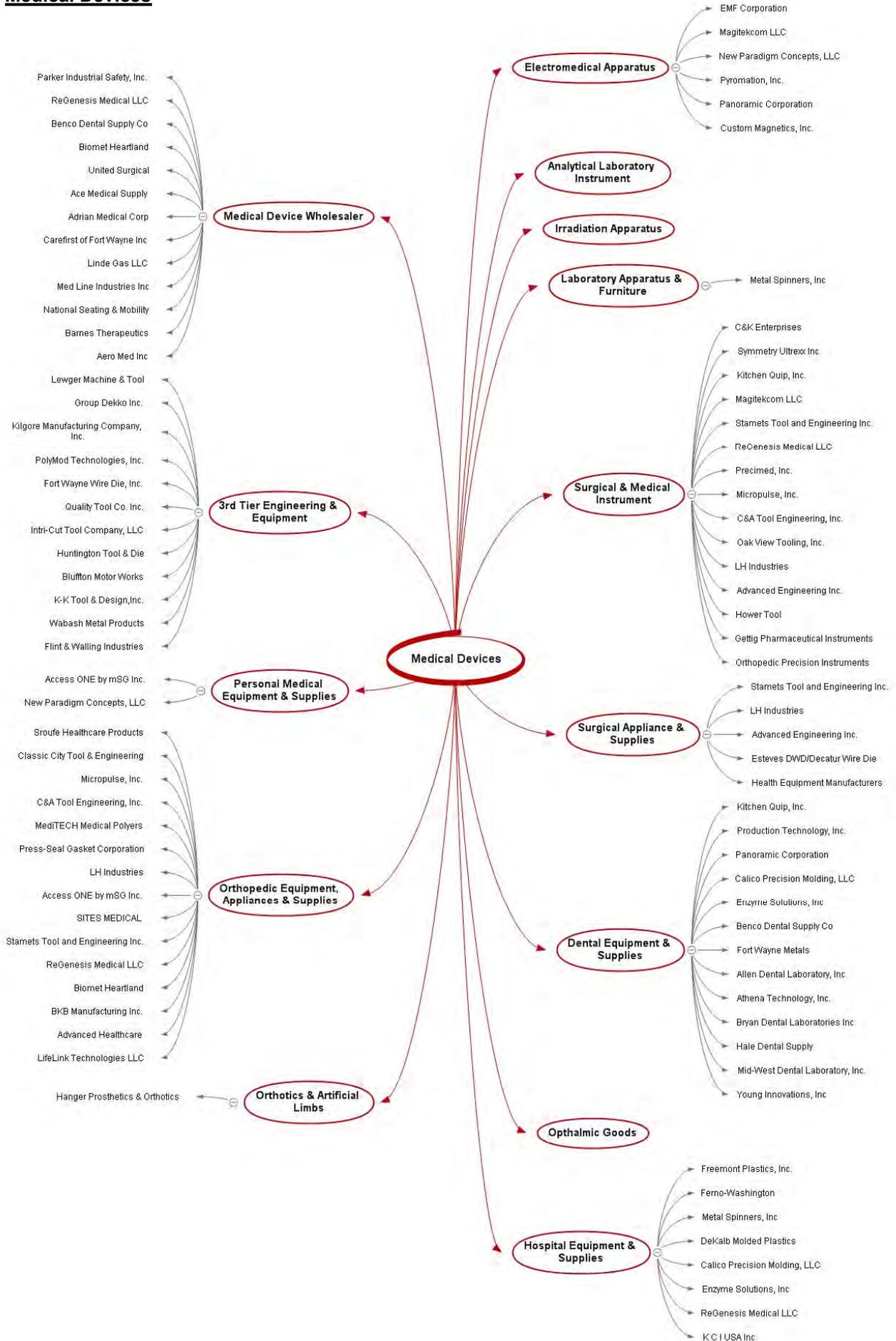


Organizations conducting research & development activities as a major function of their business are represented in this area of the map. A company may also be represented in another branch of the map if their business is multi-dimensional. For example, a company that conducts research related to the production of a new medical device and subsequently manufactures a device based on the research will be included in both the R&D and Manufacturing branches of the map.

The region has a concentration of companies in the Physical, Engineering and Biological branch that are doing research primarily related to the orthopedic industry. This is very important to the future of the orthopedics industry in Indiana and to the growth of the life science cluster in Northeast Indiana. While orthopedics manufacturing is very strong in the state, it has been noted that research opportunities are less plentiful.

The rural nature of much of the region is a fit for a number of companies involved in agricultural research. Purdue University also has a research facility in the area.

# Medical Devices



## **Medical Device**

The medical device category of the asset map is included in the overall manufacturing sector. Companies in this branch manufacture a product that is used in the process of patient treatment.

The medical device cluster makes up a large portion of the life science economy in Northeast Indiana. While nearly all applications are represented in the asset map, the area has particular strength in Surgical & Medical Equipment, Dental Equipment & Supplies, Orthopedic Equipment, Appliances & Supplies and Third-tier Engineering & Support. The workforce in the area is well-trained, highly-skilled and understands the quality standards of the medical industry. The depth of talent in engineering makes the area a natural fit for this type of work.

The dental cluster, which is quite well-developed in Northeast Indiana, is somewhat unique to the area. More support systems are needed to support and grow this industry niche.

**Manufacturing Support**



## **Manufacturing Support**

Companies classified in the manufacturing support branch of the asset map typically produce a component of a life science product, but are not responsible for the production of the finished good. These companies are often difficult to identify as active in the life science industry since their product description may not include such a designation.

This is one of the strongest clusters in Northeast Indiana. Companies are distributed geographically throughout the region, with both plastics and metals represented. Most of these firms support the medical device and orthopedics industry and are highly skilled at both prototyping and production. As small, nimble companies, most have been successful in diversifying their product line from automotive to life sciences. This is an area of continued opportunity for the region. As more opportunities for the production of generic medical devices emerge, these companies will be well-positioned to provide contract manufacturing services for new players in the device industry.

## **Gaps in the Asset Map**

The asset map in Northeast Indiana is very well-developed, with few gaps. In the business services sector, there may be room for additional specialized support services in the areas of human resources, accounting, legal and marketing. However, these services are represented in the market. Local companies can also access these services fairly easily in Northeast Indiana.

Venture capital and angel funding are available in the region, but additional assets would be welcome. While it is widely recognized that the entire Midwest is lacking in this area, more funding for start-up companies is vital for the development of more entrepreneurial activity in the region.

The drugs and pharmaceutical cluster in the region shows limited activity. The area's proximity to the pharmaceutical cluster in Central Indiana and the pharmacy school and contract manufacturing programs at Purdue could make the area attractive to emerging companies in this cluster.

## Building a Life Science Environment

The asset map and corresponding database provide a comprehensive listing of the life science companies in the region. As part of an existing business strategy, the database should be reviewed and updated annually. The companies in the database should be incorporated into the local economic development office's existing business outreach programs.

- Because talent, new technology and rapid change are hallmarks of the life science industry, having a strong network of related companies is especially important to these firms. A business retention strategy for life science companies must include offering networking and educational opportunities.
  - Utilize existing networking opportunities
    - IHIF Life Science Luncheon
    - Indiana Biomedical Entrepreneur Network
    - Kelley School of Business Life Science Forums
    - The IHIF Annual Innovation Conference
    - Programs at local colleges and universities
    - Seminars devoted to life science topics
- Keep life sciences companies informed about legislative and program developments at the state and local level. These issues can directly impact the bottom line of a company, but many companies don't have the time or the expertise to stay abreast of changes.
  - Provide legislative updates specific to life science issues
  - Provide information about incentive programs that are especially applicable to life sciences companies such as the Venture Capital Tax Credit, 21<sup>st</sup> Century Fund and others. Comprehensive information is available at [www.iedc.gov](http://www.iedc.gov).
- Network with existing venture capital firms locally and throughout the Midwest. Gather information about their investment targets, funding levels and strategies. Serve as a source regarding venture capital opportunities to local companies.
- Learn about the life science industry. The life science industry is truly unique. The critical issues facing the industry are different than those facing Indiana's traditional industries such as durable good manufacturers and logistics firms.
  - Regularly review publications (listed below) that are applicable to local life science companies.
  - Review information from local universities regarding research initiatives, funding sources, new programs.
  - Follow national and international initiatives that impact healthcare, research & development and regulatory issues.

## Clinical Trials

Conducting clinical research is a mandatory and very expensive requirement for bringing a new drug or device to market. Companies need not only to identify patients but also need to be sure the people collecting and analyzing the data are responsible and accountable. Anything that can be done to reduce the time and paperwork to get a product into a clinical evaluation setting ultimately helps to reduce the associated costs.

- The Indiana Health Industry Forum (IHIF) has formed a task force to investigate how Indiana can streamline the process for drug and device clinical trials. The goal is to reduce the costs incurred by Indiana companies conducting those trials and to encourage out-of-state companies to conduct more of their trials in Indiana. Any company or hospital involved in (or interested in becoming involved in) clinical research should be encouraged to participate.

## **Contract Manufacturing**

Indiana's manufacturing expertise translates across the board to the health and life science industries. Whether a client is working to bring a new pharmaceutical or biopharmaceutical to market or developing and testing a medical device, contract and outsource service providers can help every step along the way.

- **Devices**
  - Contract services may include: development of plastic or metal parts, software development, machining or tooling, prototyping, design & engineering, sales & distribution, regulatory and patent guidance
  - Many existing companies may have competencies that can be used to manufacture medical/surgical instrumentation and devices.
- **Pharmaceuticals/Biopharmaceuticals**
  - Contract services may include: discovery, analysis, formulation, scale up manufacturing, clinical research, regulatory and patent guidance, modeling, logistics and cold chain storage.
  - BioCrossroadsLINX program - BioCrossroadsLINX advances Indiana's drug development sector and facilitates connections with the biotechnology and pharmaceutical industries. Home to more than 40 contract drug development companies and their 6,000 employees, Indiana's technology, resources and spirit make it a premier drug development and manufacturing center in the U.S. These contract service providers support the growing outsourcing needs of the pharmaceutical and biotechnology industries. This program provides a web-based service to identify service providers in Indiana.

## Regional Strategy Recommendations

As a result of our investigation and based upon the assets recognized within the study area, we would like to offer the following growth strategy recommendations for the region:

### **Business Attraction and Growth**

*\*Disclaimer – Inclusion on this list in no way constitutes an endorsement, representation of interest or future business intent, or existence of a relationship with the Indiana Health Industry Forum, its consultants or affiliates.*

- **Electronic medical / research laboratory and testing equipment** – The recommendation is based upon the engineering programs available through Indiana-Purdue Fort Wayne (IPFW), the life sciences training programs in the area, the existing concentrations of medical device-oriented companies, and the region’s traditional manufacturing base. The crossover of these disciplines appears to allow for targeting of research and production of new technologies for the analysis of drug candidates, their efficacy in cell structures, their compositions, etc.
  - Some companies in this field are:
    - Applied Biosystems
    - Agilent Technologies
    - Thermo Fisher Scientific
    - Waters Corporation
  - Some important trade shows for this industry are:
    - Biotechnology Industry Organization (BIO)
    - BIO-Europe
    - INTERPHEX
    - INTERPHEX Asia
    - Forum Labo
  - Industry Publications:
    - BioWorld Today
    - BioPharm International
    - Innovations in Pharmaceutical Technology
    - Pharmaceutical Technology
    - Pharmaceutical Technology Europe
    - Contract Pharma
- **Medical devices** – The recommendation is based upon the existing cluster of medical device companies in the area with particular concentrations in Surgical & Medical Equipment, Dental Equipment & Supplies and Orthopedic Equipments. As stated previously, opportunities appear to exist to expand research and development for medical devices statewide, particularly through partnerships with companies in the Warsaw cluster. Additional opportunities appear to also exist with some of the smaller specialty engineering companies in the area directed to prototype development and small run production.
  - Some companies in this field are:
    - DePuy Orthopaedics
    - Smith & Nephew
    - Cook
    - Biomet
    - Zimmer Holdings
    - Boston Scientific
  - Some important trade shows for this industry are:
    - Medical Device & Manufacturing East
    - FIME International Medical Expo
  - Industry Publications:
    - IEEE Engineering in Medicine and Biology Magazine
    - Medical Device & Diagnostic Industry
    - Medical Product Manufacturing News
    - Medical Device Technology

## **Entrepreneurial Growth: Hospitals**

- **Hospitals as an Idea Generator**

In many instances hospitals are among the largest employers in a county but often overlooked as a source of innovation and technology resources. Whether or not a hospital is conducting clinical research on the premises, doctors and nurses may have ideas for new products or have created techniques to solve common problems.

- Develop good working relationships with individual hospitals and work to be seen as a source of encouragement and guidance for people exploring ideas.
- Be familiar with areas of clinical research in your area (see map)
- Be familiar with centers of excellence

- **Tech Transfer & Innovation**

While some hospitals have excellent technology transfer mechanisms to encourage staff to explore opportunities as a means to encourage professional growth, others may not consider their facilities as fertile ground. High tech equipment and procedures can be found in many rural hospitals, especially as hospitals compete for patients by advertising the latest and greatest equipment, staff, and facilities.

- **Be aware of the dynamics of the hospital business model.**

Collaboration between providers is unlikely (again, competing for patients), unless they are in separate patient markets. For-profit and not-for-profit hospitals are affected by insurance reimbursement policies. Opportunities to decrease costs and increase staff efficiency are in high demand. Many hospitals are exploring implementing quality systems.

- Check with IHIF for referrals to hospitals with innovative programs
- IHIF ED Network
- Refer to IHIF for industry specific service provider information and other business development resources.

- **Attracting Talent**

As with the rest of the life science industry, extreme competition exists. Attracting and keeping medical talent is key to the success of local healthcare providers.

- Be familiar with new equipment purchases. The opportunity to work with current technologies is attractive to doctors and may help to encourage their relocation to more rural areas.
- Quality of life is a high motivator for attracting doctors and their spouses. Many times a spouse will be as educated as the candidate that is looking in your area.
- Develop a local spousal employment referral network
- Assess local intellectual capital – promote number of Ph.D, M.D. and Master's level degreed professionals.
- Continue to focus upon education and training support for health care delivery professionals within the region. The demographic trends of the US and the State of Indiana is driving the need for medical professionals, from orthopedic surgeons to home health care workers. The existing educational and training resources available within the area make this a clearly identified target for the area.

## **Additional Regional Strategies**

- The region has a particular strength in Health IT, specifically in electronic management of patient records. Given the unique properties of this type of data (accuracy requirements, liability concerns, privacy considerations, access requirements, research value, etc.) the trend toward centralized patient data management, and the aging US demographic, the area's expertise could prove extremely valuable for both private and public concerns.
- Seek opportunities to capitalize on the region's central location between Chicago, Toledo, Indianapolis and southern Michigan building upon the area's transportation assets. The recent rise in oil prices is forcing many companies, including life science companies, to rethink their distribution strategies including how inventory is held. Centering between population bases along strong transportation corridors is a natural cost mitigation target.
- Continue to seek opportunities to collaborate and market the region's assets jointly with other portions of the state. The Northeast area can benefit greatly from joining in marketing and promotion efforts with the rest of the state by highlighting the critical mass of life science resources available, the area's geographic location within these assets, and through cost sharing with the other regions.

## **Summary**

The Indiana Health Industry Forum's Statewide Asset Mapping and Strategic Planning project is the first of its type in the state. The regional analysis and recommendations developed through this process are just a starting point. IHIF will be available to assist local communities in adding to the asset map, further developing strategies and creating successful implementation plans for these strategies.

For more information on this project or regarding IHIF's programs, please visit [www.ihif.org](http://www.ihif.org).