RESEARCH *in* YOUR BACKYARD

Developing Cures, Creating Jobs

Pharmaceutical clinical trials in
WISCONSIN

Executive

This report shows how biopharmaceutical research companies continue to be vitally important to the economy and patient health in Wisconsin.

Since 2004, biopharmaceutical research companies have conducted or are conducting **more than 4,600 clinical trials** of new medicines in Wisconsin in collaboration with clinical research centers, hospitals, and local research institutions. These clinical trials have investigated or are investigating some of Wisconsin's biggest health care challenges, including autoimmune disorders, cancer, cardiovascular disease, respiratory diseases and gastrointestinal diseases.

"Everything we do begins with clinical trials—whether it's vaccines or immune therapies. They're how we ensure patients receive the safest, most effective treatments possible."

Paul Radspinner, President & CEO, FluGen Inc.

Summary

Clinical trials in
WISCONSIN

CLINICAL TRIALS IN WISCONSIN ARE A VITAL PART OF THE FDA DRUG APPROVAL PROCESS

In the development of new medicines, clinical trials are conducted to establish therapeutic effectiveness and safety and compile the evidence needed for the U.S. Food and Drug Administration (FDA) to approve new treatments.

Clinical trials of new medicines are typically conducted in three phases and, on average, account for nearly seven of the more than 10 years it takes to bring a new medicine from development to patients. Clinical trials are responsible for more than half of the $2.6 billion average cost of developing one new innovative medicine.

Institutional Review Boards (IRBs), independent committees of physicians, statisticians, local community advocates and others, review and approve clinical trials in advance to ensure trials are ethically conducted and patient rights are protected.

Clinical Trials in Wisconsin since 2004—Completed and Open	
All Clinical Trials	**Open Clinical Trials**
4,676	466

Source: www.clinicaltrials.gov. Search criteria: Wisconsin, United States; Phase: early 1, 1, 2, 3; Industry only, first posted on or after 1/1/2004. Search performed 8/4/2025. Open clinical trials are recruiting, not yet recruiting or expanded access available.

Executive Summary (cont.)

CLINICAL TRIALS MAY OFFER IMPORTANT THERAPEUTIC OPTIONS FOR PATIENTS

For patients, clinical trials may offer the potential for another therapeutic option or provide for a treatment where no FDA-approved treatments exist. Clinical trials may provide a new avenue of care for some chronic disease sufferers who are still searching for the medicines that are best for them.

Some clinical trials are conducted to compare existing treatments, and some are done to explore whether a medicine is appropriate for a different patient population, such as children or the elderly. Still others are conducted to find ways to make existing approved treatments more effective and easier to use with fewer side effects.

ECONOMIC IMPACT OF THE BIOPHARMACEUTICAL SECTOR IN WISCONSIN

Biopharmaceutical research companies have been and continue to be a good source of jobs, tax revenue and research spending in Wisconsin.

A study by TEConomy Partners[1] found that in 2022, the industry supported more than 59,000 jobs throughout Wisconsin. Wages and benefits for employees whose jobs were supported by the biopharmaceutical sector resulted in $1.1 billion in state and federal taxes paid.

Biopharmaceutical research companies supported the generation of $18.3 billion in economic activity in the state, including the direct economic output of the sector itself, the output of the sector's vendors and suppliers and the output generated by the buying power of its workforce.

Company employees in Wisconsin include life science researchers, management executives, office and administrative support workers, production workers, engineers, architects, computer and math experts, and sales representatives. Biopharmaceutical companies also supported the jobs of their vendors and suppliers, including construction and IT firms. And the employees of biopharmaceutical companies help to support local restaurants, day care centers and other community businesses.

ECONOMIC IMPACT OF CLINICAL TRIALS IN WISCONSIN

A separate study by TEConomy Partners[2] found that in 2023 alone, there were 463 active industry-sponsored clinical trials in Wisconsin, with an estimated enrollment of 5,389 Wisconsin residents.

The investment at clinical trial sites was $214 million and the estimated total economic impact was more than $418 million.

[1] *TEConomy Partners, LLC. The Economic Impact of the U.S. Biopharmaceutical Industry: 2022 National and State Estimates. February 2024. Report prepared for PhRMA. https://phrma.org/-/media/Project/PhRMA/PhRMA-Org/PhRMA-Refresh/Report-PDFs/D-F/The-Econ-Impact-of-US-Biopharma-Industry-2024-Report.pdf*

[2] *TEConomy Partners, LLC. Biopharmaceutical Industry-Sponsored Clinical Trials: Impacting State Economies, March 2025. Report prepared for PhRMA. https://phrma.org/resources/state-map/clinical-trials*

"Wisconsin's leadership in clinical research reflects the power of collaboration between research institutions, industry, and patients. As a cornerstone of our state's $37.7 billion biohealth industry, clinical research not only transforms lives but also strengthens Wisconsin's position as a national leader in innovation."

Lisa Johnson, CEO, BioForward

Open Clinical Trials in Wisconsin by Disease	
Disease	**Number of Trials**
Allergy	2
Alzheimer's Disease/Dementia	4
Arthritis/Musculoskeletal Diseases	4
Autoimmune Disorders	25
Blood Disorders	8
Cancer	273
Cardiovascular Diseases	20
Diabetes	7
Eye Diseases	16
Gastrointestinal/Esophageal Disorders	13
Genetic Diseases	4
Infectious Diseases	5
Kidney Diseases	7
Neurologic Disorders	21
Respiratory Diseases	30
Skin Disorders	10
Transplantation-Related	5
Other Diseases	12
Total	**466**

Source: www.clinicaltrials.gov. Search criteria: Wisconsin, United States; Phase: early 1, 1, 2, 3; Industry only; first posted on or after 1/1/2004. Search performed 8/4/2025. Open clinical trials are recruiting, not yet recruiting or expanded access available.

Patient Resources & Directory

WHAT IS THE CLINICAL TRIAL EXPERIENCE?

Clinical trials are voluntary research studies conducted in people and designed to answer specific questions about the safety and effectiveness of drugs, vaccines, other therapies, or new ways of using existing treatments. Clinical trials can generate data to support FDA approval of a new medicine or a new indication for an existing medication. They may also grant participants early access to new medicines. By volunteering for a clinical trial, patients take an active role in their health care by helping researchers test new treatments. In Wisconsin, **4,676** clinical trials since 2004 have targeted diseases and conditions like asthma, arthritis, cancer, diabetes, cardiovascular disease and Alzheimer's disease.

PHASES OF CLINICAL TRIALS

There are typically three phases of clinical testing used to evaluate potential new medicines:

PHASE I — Researchers test the medicine in a small group of people, usually between 20 and 100 healthy adult volunteers, to evaluate its initial safety and tolerability profile, determine a safe dosage range and identify potential side effects.

PHASE II — The medicine is given to volunteer patients, usually between 100 and 500 people, to study its efficacy, identify an optimal dose and to further evaluate its short-term safety.

PHASE III — The medicine is provided to a larger, more diverse patient population, often involving between 1,000 and 5,000 patients (but sometimes many more thousands), to generate statistically significant evidence to confirm its safety and effectiveness. They are the longest studies and usually take place in multiple sites around the world.

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LEARNING ABOUT AND ACCESSING CLINICAL TRIALS

Patients can learn about clinical trials in several ways. Health care providers may be aware of clinical trials being conducted at hospitals, universities, and other leading health care facilities, and these institutions can be valuable sources of information for patients looking to participate. Patients can also use hospital and university websites to find the trials being conducted in their area.

For information on clinical trials being conducted at the University of Wisconsin's Carbone Cancer Center visit https://www.uwhealth.org/cancer-clinical-trials, for trials is the University of Wisconsin-Madison visit https://uwclinicaltrials.org/get-involved/participate/. For clinical trials at the Medical College of Wisconsin visit https://www.mcw.edu/departments/office-of-research/participants.

For more information about clinical trials in Wisconsin and how to participate in a clinical trial, visit: www.centerwatch.com or www.clinicaltrials.gov.

WHAT TO EXPECT

Since clinical trials are often conducted in a doctor's office, patients may need to devote more time to physician visits and physical examinations. They may also have additional responsibilities, like keeping a daily log of their health. Generally, prospective participants will receive information about the potential risks and benefits of participating in the trial and must sign an informed consent document saying, among other things, they understand that the clinical trial is research, and that they can leave the trial at any time. Patients can volunteer to participate, leading to a pre-screening interview. If they fit the criteria and requirements of the test, they may be enrolled.

PATIENT EXPENSES

As part of the informed consent process, clinical trial sponsors must disclose any additional costs to the subject that may result from participating in the research. During pre-screening discussions with the clinical trial investigator, the patient can also ask about associated costs to participate in the trial. Clinical trial sponsors usually pay for all research-related expenses and additional testing or physician visits required by the trial. Patients or their health insurance plan may be asked to pay for any routine treatments for their disease. However, it is important for the patient to know whether their health plans will pay for clinical trial participation or whether there will be out-of-pocket costs at the patient's expense.

Patients should learn whether they or their health insurance plan will be assessed any fees, and they should determine if their insurance will cover the expense of routine examinations. Patients who live a distance from the trial site should inquire whether the clinic has a policy for covering travel costs and living expenses. The National Cancer Institute, for example, makes patients cover their own travel costs for the initial screening visits. Once a patient is enrolled in the trial, the Institute pays for transportation costs for all subsequent trial-related visits. These patients may also receive a small per diem for food and lodging.

*For more information about **the drug development and approval process in the United States**, see page 16.*

EXPANDED ACCESS

For patients with a serious or life-threatening disease who are ineligible or unable to participate in a clinical trial, use of an unapproved investigational medicine through an expanded access program may be an option. Expanded access is the use of an unapproved investigational medicine outside of a clinical trial to treat a patient with a serious or immediately life-threatening disease or condition when there are no other comparable or satisfactory alternative treatment options. Expanded access programs are part of many biopharmaceutical companies' commitment to patients.

CTEN–WI—MAKING PATIENTS AWARE OF CLINICAL TRIALS AND THEIR IMPORTANCE

The Clinical Trials Education Network of Wisconsin (CTEN) is focused on defining clinical research in terms that are easily understandable for the public, elected officials, and news media in a way that educates all about the instrumental role our industry plays in health care and the economy.

CTEN will continue to place the safety of our patients as the top priority of our profession. It is our mission to be acknowledged nationally and internationally as a leader in patient care, innovation and collaboration for the benefit of our patients.

Many of the partners in the CTEN are heavily involved in the clinical testing of new medicines in the state for a range of diseases, including infectious and respiratory conditions, cancer, asthma, migraine headaches, allergies, and others. We provide clinical research expertise and sophisticated equipment that enable biopharmaceutical companies and their local collaborators to conduct trials of new medicines.

More than a dozen organizations are partners of CTEN including: Advarra, Advarra/Forte Research Systems, Aurora Health Care, BioForward, Clinical Research Center at Marshfield Clinic Research Foundation, DNASTAR, ENDECE, Exact Sciences, FluGen, Fortrea Clinical Trials, Propagate Health, Spaulding Clinical Research, University of Wisconsin Madison Research Foundation Inc., and VibeTech.

To learn about the companies that make up CTEN, visit www.wiclinicaltrials.com.

LOCAL PATIENT ADVOCACY GROUPS

Patient advocacy groups in Wisconsin serve as an exceptional resource for patients, offering opportunities to connect and learn more about their condition and what treatment options are available locally. These groups also provide an important voice on behalf of patients to protect access to medicines and treatments.

The following are just a few major groups that work on behalf of patients in Wisconsin and may provide more information to patients with further questions.

ALS Association Wisconsin
(414) 763-2220
infoWI@als.org

Alzheimer's Association
Chippewa Valley Office
404 1/2 N. Bridge Street
Chippewa Falls, WI 54729
(414) 479-8800

Alzheimer's Association
Green Bay Office
2700 Vernon Drive, Suite 340
Green Bay, WI 54303
(414) 479-8800

Alzheimer's Association
Madison Office
4600 American Parkway, Suite 103
Madison, WI 53718
(608) 203-8500

Alzheimer's Association
Milwaukee Office
620 S. 76th Street, Suite 160
Milwaukee, WI 53214
(414) 479-8800
(800) 272-3900

Alzheimer's Association
Wausau Office
505 S. 24th Avenue, Suite 304
Wausau, WI 54401
(715) 861-6173

American Cancer Society
Wisconsin Office
P.O. Box 902
Pewaukee, WI 53072
(800) 227-2345

American Diabetes Association
Wisconsin Chapter
P.O. Box 7023
Merrifield, VA 22116-7023
(414) 778-5500
adawi@diabetes.org

American Heart Association
Milwaukee Office
275 W. Wisconsin Avenue, Suite 230
Milwaukee, WI 53203
(414) 271-9999
By Appointment Only

American Heart Association
Madison Office
2850 Dairy Drive, Suite 130
Madison, WI 53718
(608) 709-4930
By Appointment Only

American Liver Foundation
Wisconsin Resource Center
1845 N. Farwell Avenue, Suite 312
Milwaukee, WI 53202
(414) 763-3435
(800) 465-4837
info@liverfoundation.org

American Lung Association
Wisconsin Chapter
13100 W. Lisbon Road, Suite 700
Brookfield, WI 53005
(262) 703-4200
info@lung.org

Arthritis Foundation
Wisconsin Chapter
6666 Odana Road, Suite 142
Madison, WI 53719
(800) 283-7800
sjordan@arthritis.org

Coalition of WI Aging & Health Groups
30 West Mifflin Suite 406
Madison, WI 53703
(608) 224-0606
(800) 488-2596

Crohn's & Colitis Foundation
Wisconsin Chapter
10425 W. North Avenue, Suite 324
Wauwatosa, WI 53226
(414) 475-5520
wisconsin@crohnscolitisfoundation.org

Cystic Fibrosis Foundation
Wisconsin Chapter
400 S. Executive Drive, Suite 109
Brookfield, WI 53005-4210
(262) 798-2060
wisconsin@cff.org

Epilepsy Foundation of Wisconsin
6666 Odana Road, Suite 108
Madison, WI 53719
(608) 665-1848
info@epilepsywisconsin.org

Great Lakes Hemophilia Foundation
638 North 18th Street, Suite 108
Milwaukee, WI 53233
(414) 257-0200
(888) 797-GLHF

Lupus Foundation of America
Wisconsin Chapter
2600 N. Mayfair Road, Suite 320
Milwaukee, WI 53226
(414) 443-6400
lupuswi@lupuswi.org

NAMI Wisconsin
National Alliance on Mental Illness
414 Atlas Avenue
Madison, WI 53714
(608) 268-6000
(833) 860-5400
nami@namiwisconsin.org

National Kidney Foundation of Wisconsin
10909 W. Greenfield Avenue, Suite 201
West Allis, WI 53214-2379
(414) 897-8669
info@kidneywi.org

National Multiple Sclerosis Society
Wisconsin Chapter
175 Patrick Blvd., Suite 175
Brookfield, WI 53045
Mailing Address:
P.O. Box 88540
Carol Stream, IL 60188
(800) 344-4867

National Psoriasis Foundation
Midwest Region
(503) 546-5558
jhamel@psoriasis.org

National Scleroderma Foundation
Upper Great Lakes Chapter
P.O. Box 411533
Boston, MA 02241-1533
(978) 624-1259
uglchapter@scleroderma.org

Sickle Cell Disease Association of Wisconsin
P.O. Box 5172
Madison, WI 53705-5172
support@scdaw.org

Wisconsin Breast Cancer Coalition
205 W. Highland Avenue, Suite 509
Milwaukee, WI 53203
admin@wibreastcancer.org

Wisconsin Ovarian Cancer Alliance
13825 W. National Avenue, Suite 103
New Berlin, WI 53151
(262) 797-7804
friends@wisconsinovariancancer.org

Wisconsin Parkinson Association
13400 Bishops Lane, Suite 120
Brookfield, WI 53005
(414) 312-6990
mail@wiparkinson.org

OTHER PATIENT RESOURCES

MEDICINE ASSISTANCE TOOL (MAT): The Medicine Assistance Tool is a PhRMA-sponsored search engine designed to help patients, caregivers and health care providers learn more about the resources available through the various biopharmaceutical industry programs. MAT is not its own patient assistance program, but rather, a search engine for many of the support programs and resources that the biopharmaceutical industry has offered for decades. The online process takes about 15 minutes, and patients can find out instantly if they are eligible for assistance. Patients can visit *www.mat.org* for more information.

HEALTHCARE READY: Healthcare Ready is a tool activated to help keep emergency responders informed on the status of the biopharmaceutical supply chain in the event of a natural disaster or emergency. Healthcare Ready's Rx Open tool has been deployed in several states and the District of Columbia and helps victims and evacuees who needed to fill or re-fill their prescriptions find open pharmacies. Healthcare Ready also helps emergency responders with critical information on the challenges facing supply chain partners relating to electricity, fuel and transportation issues. Patients can visit *www.healthcareready.org* for more information..

Clinical Trial Policy Resources

THE BIOPHARMACEUTICAL SECTOR'S ROLE IN THE ECONOMY

America's biopharmaceutical research companies serve as the foundation for one of the country's most dynamic innovation and business ecosystems. The biopharmaceutical industry is among the most research and development (R&D) intensive industries in the United States. In fact, the sector accounts for the single largest share of all U.S. business R&D, accounting for approximately 17 percent of all R&D spending by U.S. businesses. The industry and its large-scale research and manufacturing supply chain support high-quality jobs across the U.S. economy.

Biopharmaceutical companies invest 12 times more in R&D per employee than manufacturing industries overall.

The biopharmaceutical industry supported more than 4.9 million jobs across the U.S. economy in 2022, according to a study by TEConomy Partners.[3]

Over the last decade, biopharmaceutical companies that are members of the Pharmaceutical Research and Manufacturers of America (PhRMA) have invested more than $800 billion in the search for new treatments and cures, and they support nearly five million jobs in the United States.

*For more information on the **economic impact of the biopharmaceutical industry in Wisconsin**, see page 2.*

ECONOMIC IMPACT OF THE BIOPHARMACEUTICAL SECTOR IN WISCONSIN

Biopharmaceutical research companies have been and continue to be a source of quality jobs, tax revenue and research spending in Wisconsin. A TEConomy Partners study[3] found that the biopharmaceutical sector:

- Supported more than 59,000 jobs throughout Wisconsin in 2022.
- Supported the generation of $18.3 billion in economic activity in the state.
- Resulted in $1.1 billion in federal and state taxes through jobs supported by the biopharmaceutical sector.

"Wisconsin's aging population deserves access to the very best science and treatments available. By investing in clinical research here at home, we're not only bringing cutting-edge therapies closer to patients, but we're also strengthening our healthcare system for the future."

Rob Gundermann, President & CEO, Coalition of Wisconsin Aging & Health Groups (CWAG)

[3] *TEConomy Partners, LLC. The Economic Impact of the U.S. Biopharmaceutical Industry: 2022 National and State Estimates. February 2024. Report prepared for PhRMA. https://phrma.org/-/media/Project/PhRMA/PhRMA-Org/PhRMA-Refresh/Report-PDFs/D-F/The-Econ-Impact-of-US-Biopharma-Industry-2024-Report.pdf*

PUBLIC–PRIVATE PARTNERSHIPS AND LOCAL COLLABORATION[4]

The following are just a few of the prominent institutions that biopharmaceutical research companies are collaborating with on clinical trials for new medicines:

- **Advarra**, Madison
- **Allegiance Research Specialists**, Milwaukee, Wauwatosa
- **Allergy, Asthma & Sinus Center**, Greenfield
- **Ascension All Saints Hospital**, Racine
- **Ascension Calumet Hospital**, Chilton
- **Ascension Columbia Saint Mary's Hospital**, Mequon, Milwaukee
- **Ascension Medical Group Southeast Wisconsin**, Wauwatosa
- **Ascension Mercy Hospital**, Oshkosh
- **Ascension Saint Elizabeth Hospital**, Appleton
- **Ascension Saint Francis Hospital**, Milwaukee
- **Ascension Saint Francis-Reiman Cancer Center**, Franklin
- **Ascension Southeast Wisconsin Hospital, Elmbrook Campus**, Brookfield
- **Ascension Southeast Wisconsin Hospital**, Franklin
- **Ascension Southeast Wisconsin Hospital-Saint Joseph Campus**, Milwaukee
- **Aspirus Research Institute**, Wausau
- **Aurora Bay Area Medical Group**, Marinette
- **Aurora BayCare Medical Center**, Green Bay
- **Aurora Cancer Care**, Burlington, Grafton, Kenosha, Racine, Wauwatosa
- **Aurora Health Care Germantown Health Center**, Germantown
- **Aurora Medical Center in Summit**, Summit
- **Aurora Saint Luke's Medical Center**, Milwaukee
- **Aurora Saint Luke's South Shore**, Cudahy
- **Aurora Sinai Medical Center**, Milwaukee
- **Aurora St. Luke's Medical Center**, Milwaukee
- **Aurora West Allis Medical Center**, West Allis
- **BCN Research**, Greenfield
- **Cancer Center of Western Wisconsin**, New Richmond
- **Carbone Cancer Center**, **University of Wisconsin**, Madison
- **Center for Neurological Disorders — Gamma Therapeutic Center**, Greenfield
- **Children's Wisconsin,** Milwaukee
- **Clinical Investigation Specialists**, Kenosha
- **Drug Research and Analysis Corporation**, Madison
- **Duluth Clinic**, Ashland
- **Emplify Health by Bellin Green Bay Hospital,** Green Bay
- **Essentia Health Saint Mary's Hospital**, Superior
- **Essentia Health Clinic**, Hayward, Spooner
- **Eye Clinic of Wisconsin**, Wausau
- **Fortrea Clinical Trials**, Madison
- **Froedtert and MCW Moorland Reserve Health Center**, New Berlin
- **Froedtert and The Medical College of Wisconsin**, Milwaukee
- **Gundersen Health System**, La Crosse (also known as Emplify Health by Gundersen)
- **Marshfield Clinic-Minocqua Center**, Minocqua
- **Marshfield Medical Center**, Eau Claire, Marshfield, Minocqua, Stevens Point, Weston
- **Mayo Clinic Health System-Eau Claire Clinic**, Eau Claire
- **Medical College of Wisconsin**, Milwaukee
- **Mercy Health System**, Lake Geneva
- **Mercyhealth Hospital and Cancer Center**, Janesville
- **Mind+ Neurology**, Mequon
- **Neuroscience Group of Northeast Wisconsin**, Neenah

[4] *www.clinicaltrials.gov. Retrieved 8/5/2025.*

PUBLIC–PRIVATE PARTNERSHIPS AND LOCAL COLLABORATION *(CONT.)*

- **Northwest Wisconsin Cancer Center,** Ashland
- **Prevea Health**, Green Bay
- **ProHealth Care Research Institute and Cardiology Associates**, Waukesha
- **ProHealth Greenwald Center**, Mukwonago
- **ProHealth Oconomowoc Memorial Hospital**, Oconomowoc
- **ProHealth Waukesha Memorial Hospital**, Waukesha
- **Saint Vincent Hospital Cancer Center**, Green Bay, Oconto Falls, Sheboygan, Sturgeon Bay
- **Sheboygan Cancer & Blood Specialists**, Sheboygan
- **Sheboygan Physicians Group**, Sheboygan
- **SSM Health Dean Medical Group**, Madison
- **ThedaCare Cancer Care**, Waupaca
- **ThedaCare Regional Cancer Center** Appleton
- **University Hospital and UW Health Clinics**, **University of Wisconsin**, Madison
- **UW Cancer Center at ProHealth Care**, Waukesha
- **Versiti Wisconsin**, Milwaukee
- **Vince Lombardi Cancer Clinic**, Oshkosh, Sheboygan, Two Rivers
- **Wheaton Franciscan Healthcare — St Francis**, Milwaukee
- **Wisconsin Center for Advanced Research**, Milwaukee
- **Wisconsin Institute Medical Research**, Madison

WISCONSIN UNIVERSITIES PLAY A KEY ROLE IN RESEARCH

Collaborations between the biopharmaceutical research industry and universities play an important role in the development of new medicines. In the United States, there are more than 9,100 open clinical trials[5] being sponsored by the biopharmaceutical industry, universities, individuals, and organizations combined. These trials represent studies being funded by industry, research collaboration studies, and research undertaken by other groups on their own.

In Wisconsin, of the 466 open clinical trials involving the biopharmaceutical research industry, the University of Wisconsin is collaborating on more than 138 clinical trials and the Medical College of Wisconsin is collaborating on more than 145 of the clinical trials.

[5] Data collected from www.clinicaltrials.gov. Search criteria: United States, Phase early 1, 1, 2, 3; Industry and Other, first received on or after 1/1/2004. Search performed 8/5/2025. Open clinical trials are recruiting, not yet recruiting, or expanded access available.

THE STATE OF DISEASE IN WISCONSIN

More than 5.8 million people live in Wisconsin[1], and many are dealing with disease and disability from asthma to cancer and from diabetes to heart disease.

Selected Disease Statistics in Wisconsin	
Disease	**Health Statistic**
Alzheimer's Disease Deaths 2023[2]	2,348
Asthma Prevalence, Adults 2018[2]	9.0%
Asthma Prevalence Children 2018[2]	8.4%
Cancer News Cases 2025[3]	39,940
Cancer Deaths 2025[3]	11,760
Chronic Lower Respiratory Deaths 2023[2]	2,513
COVID-19 Deaths 2023[2]	817
Diabetes Deaths 2023[2]	1,479
Diabetes Prevalence Adults 2021[4]	7.9%
Heart Disease Deaths 2023[2]	12,980
HIV—Number Living with a Diagnosis 2022[5]	6,943
Hypertension Deaths 2023[2]	608
Influenza and Pneumonia Deaths 2023[2]	616
Kidney Disease Deaths 2023[2]	780
Chronic Liver Disease Deaths 2023[2]	910
Mental Illness—Adults 2022–2023[5]	1,141,000
Parkinson's Disease Deaths 2023[2]	777
Septicemia Deaths 2023[2]	668
Stroke Deaths 2023[2]	2,693

Source: 1. U.S. Census Bureau 2. Wisconsin Department of Health Services 3. American Cancer Society 4. Centers for Disease Control and Prevention 5. Kaiser Family Foundation, State Health Facts.

WISCONSIN CLINICAL TRIALS AND SPECIAL POPULATIONS: CHILDREN, OLDER AMERICANS AND WOMEN

- Children aged 19 and under make up 24.3%[6] of the population in Wisconsin. Pediatric clinical trials are being conducted in the state for asthma, atopic dermatitis, cystic fibrosis, leukemia, migraine, multiple sclerosis and peanut allergy, among others.[7]

- Wisconsinites aged 65 and older account for 19.2%[6] of the states' population. In Wisconsin, clinical trials are recruiting older people to study potential treatments for diseases such as Alzheimer's disease, breast cancer, chronic kidney disease, chronic obstructive pulmonary disease, heart failure, leukemia, lymphoma and prostate cancer, among others.[7]

- Women and girls make up 49.9%[6] of the population in Wisconsin. Clinical trials are recruiting women for studies on medicines for Alzheimer's disease, breast cancer, heart failure, migraine, ovarian cancer, psoriatic arthritis, type 2 diabetes, among others.[7]

[6] U.S. Census Bureau, [7] www.clinicaltrials.gov

Open Clinical Trials in Wisconsin for Special Populations

Population	Number of Trials
Children (birth–17)	83
Seniors (65 and older)	411
Women (only)	11

Source: www.clinicaltrials.gov. Search criteria: Wisconsin, United States; Phase: early 1, 1, 2, 3; Industry only, first received on or after 1/1/2004. Search performed 8/4/2025. Open clinical trials are recruiting, not yet recruiting, or expanded access available.

5 Leading Causes of Death in Wisconsin by Sex, 2023			
Disease	**Male**	**Disease**	**Female**
Heart Disease	209.7	Heart Disease	135.0
Cancer	174.7	Cancer	129.3
Unintentional Injuries	93.8	Unintentional Injuries	53.6
Stroke	36.4	Alzheimer's Disease	36.0
Chronic Lower Respiratory Disease	35.1	Stroke	33.9

Source: Wisconsin Department of Health Services. Numbers reflect age-adjusted mortality rate per 100,000.

Leading Causes of Death in Wisconsin Race/Ethnicity, 2023							
Disease	**White**	**Black**	**Hispanic**	**Asian**	**American Indian/ Alaska Native**	**Native Hawaiian/ Pacific Islander**	**Multiple Races**
Cancer	10,790	579	218	102	98	N/A	N/A
Diabetes	1,241	125	58	18	37	0	0
Heart Disease	11,917	688	175	114	87	N/A	16

Source: Kaiser Family Foundation, State Health Facts

SCIENCE AND CLINICAL TRIALS[8]

Some of the medicines in clinical testing in Wisconsin feature cutting-edge medical technologies. For example:

- A mRNA-based therapeutic vaccine is in clinical trials for high-risk (stage IIb-IV) melanoma. Melanoma is the most serious form of skin cancer with 100,640 new cases and 8,290 deaths expected in 2024.xv The personalized therapeutic vaccine is a synthetic mRNA that can code up to 34 neoantigens that is designed and constructed based on the unique mutations of the patients' tumor. The vaccine neoantigens train and activate an antitumor immune response by generating specific T-cell responses directed at the cancer cells expressing the neoantigens. A clinical trial is being conducted at the **University of Wisconsin Hospital and UW Health Clinics** in **Madison**.

- A monoclonal antibody (mAb) is in development for the reduction of asthma attacks in severe asthma with type 2 inflammation (a condition that elevates white blood cell levels, which increase asthma symptoms). Type 2 inflammation is responsible for more than 80% of severe asthma cases and can lead to exacerbations of the disease (increased coughing, shortness of breath or wheezing). The mAb in development targets the action of interleukin-5 (IL-5), a protein known to play a key role in the growth, activity and survival of eosinophils associated with type 2 inflammation in severe asthma. In clinical trials, the medicine has shown significant reductions in exacerbations over 52 weeks versus placebo. Clinical trials are being conducted in **Greenfield** and **Milwaukee**.

- Post-approval research of an amyloid-beta protein inhibitor for the treatment of mild Alzheimer's disease is being studied as a treatment for preclinical Alzheimer's disease (the disease stage when changes in the brain are occurring but before any symptoms are seen). The medicine works by targeting the build-up of amyloid beta plaques in the brain, a key element in the development of Alzheimer's disease. Amyloid plaques appear between nerve cells in the brain and disrupt cell function. It is being studied to determine its ability to reduce brain amyloid accumulation and possibly prevent the disease from progressing. A clinical trial is being conducted at the **University of Wisconsin** in **Madison**.

- An oral PCSK9 inhibitor is in development for the reduction of low-density lipoprotein (LDL) cholesterol, or "bad cholesterol." Currently, approved PCSK9 inhibitors are all injectable medicines. PCSK9 plays a key role in cholesterol by lowering levels of LDL receptors, which are responsible for removing LDL cholesterol from the blood. Inhibiting the interaction of PCSK9 and LDL receptors results in a greater number of LDL receptors to remove LDL cholesterol. Elevated LDL cholesterol is a major risk factor for atherosclerotic cardiovascular disease, which can lead to heart attacks and strokes. A clinical is being conducted at **Labcorp Clinical Research Unit** in **Madison**.

- A factor XIa (FXIa) inhibitor is being developed for the prevention of secondary ischemic stroke in patients who have had a stroke or who are at high-risk for transient ischemic attack (TIA). Many patients are untreated or undertreated for the risk of blood clots (thrombosis) due to the risk of bleeding. Factor XIa is a key factor in the process promoting clot formation but with reduced risk of bleeding compared to other factors. FXIa inhibitors may reduce clot formations while maintaining the body's ability to respond to bleeding events. I clinical trial is being conducted at **Froedtert Hospital** in **Milwaukee**.

- An anti-TIGIT monoclonal antibody (mAB) is in development for non-small cell lung cancer and esophageal cancer. The medicine works as an immune amplifier, by potentially enhancing the body's immune response. It blocks the interaction of TIGIT with a poliovirus receptor that can suppress the body's immune response. It is being studied as a monotherapy and in combination with Tecentriq® (atezolizumab), an approved anti-PD-L1 mAb. The combination of the TIGIT mAb and the PD-L1 mAb offers a dual blockade that has the potential to increase anti-tumor activity. A clinical trial is being conducted at **Froedtert Clinical Cancer Center** in **Milwaukee**.

[8] *PhRMA Medicines in Development reports, https://phrma.org/policy-issues/innovative-medicines*

- An additional first-generation multivalent conjugate vaccine was recently approved for protection against meningococcal infections. The combination vaccine targets all 5 Neisseria meningitides serogroups (A, B, C, W, and Y). Invasive meningococcal disease (IMD), a major cause of meningitis and septicemia, is an uncommon but serious illness that can cause life-threatening complications or even death, typically among previously healthy children and adolescents. Among those contracting meningococcal diseases, one in 10 will die, sometimes in as little as 24 hours, despite treatment. A clinical trial for the vaccine was conducted in **Marshfield**.

- A medicine in development to treat prostate cancer, binds to and inhibits AKT proteins. AKT helps to regulate cellular processes, such as cell division, cell death, and glucose and fatty acid metabolism. Mutations in the PI3K/AKT/mTOR signaling pathway can promote several types of cancer, including prostate cancer, because normal cellular processes are disrupted. The medicine works by inhibiting AKT in cancer cells. A clinical trial is being conducted in **Madison**.

- A recently approved fixed-dose combination treatment of two approved medicines was developed for metastatic castration resistant prostate cancer with BRCA mutations. The dual action medicine, in combination with prednisone, targets two drivers of prostate cancer — the androgen receptor and BRCA mutations. The medicine inhibits the production of androgens, which are necessary for prostate cancer growth, and inhibits PARP enzymes, which play a role in DNA repair (in this case specifically the BRCA mutation) that results in tumor cell death. BRCA1 and 2 are tumor suppressor genes and when they work normally, they help keep certain cancer cells from growing and dividing. A clinical trial was conducted at the **University of Wisconsin Carbone Cancer Center** in **Madison**.

- An approved therapy developed for hereditary thrombotic thrombocytopenic purpura (hTTP) is a bio-engineered version of the naturally occurring protein ADAMTS13 that plays a critical role in blood coagulation. A deficiency of the protein can lead to the formation of blood clots in the small blood vessels throughout the body, leading to TTP. Acquired TTP is often due to antibodies directed against ADAMTS13, while hTTP is caused by mutations of the ADAMTS13 gene, resulting in a severe deficiency of the protein. The therapy is also being studied as a treatment of vaso-crisis related to sickle cell disease. About 4,000 people have hTTP worldwide. A clinical trial was conducted at **Versiti Clinical Trials and Research Office** in **Milwaukee**.

- A disease-modifying treatment in development for relapsing multiple sclerosis is an inhibitor of Bruton's tyrosine kinase (BTK) and targets the source of multiple sclerosis damage in the brain (lesions). The BTK inhibitor not only inhibits the peripheral immune system, but also crosses the blood-brain barrier to suppress immune cells that have migrated into the brain, while also modulating microglia cells that are responsible for removing damaged neurons that have been implicated in multiple sclerosis progression. The medicine shows promise for reducing neuroinflammation and neurodegeneration, both implicated in disease progression. Clinical trials are being conducted at the **Medical College of Wisconsin** and at **Wheaton Franciscan Healthcare** in **Milwaukee**.

- A monoclonal antibody in development for the prevention of migraine binds to and inhibits the activity of a peptide expressed in the nervous system where it plays a role in controlling the widening of blood vessels and the transmission of nociceptive pain (pain arising from nerve cells) information. By inhibiting CGRP activity, anti-CGRP antibodies are thought to help inhibit the transmission of pain signals associated with migraines. The medicine is approved for use in adults. A clinical trial is being conducted in children and adolescents at the **Marshfield Clinic** in **Marshfield**.

The innovative treatments that are being developed today are helping to expand the frontiers of science and could lead to more and better treatments for patients in the future. In Wisconsin, this innovation is the result of a successful collaboration between biopharmaceutical companies and local research institutions.

Conclusion

The Wisconsin bioscience industry supports more than 59,000 jobs throughout Wisconsin with wages and benefits supported by the sector, resulting in $1.1 billion in state and federal taxes paid. The industry is also driving innovation and additional economic activity in the state.

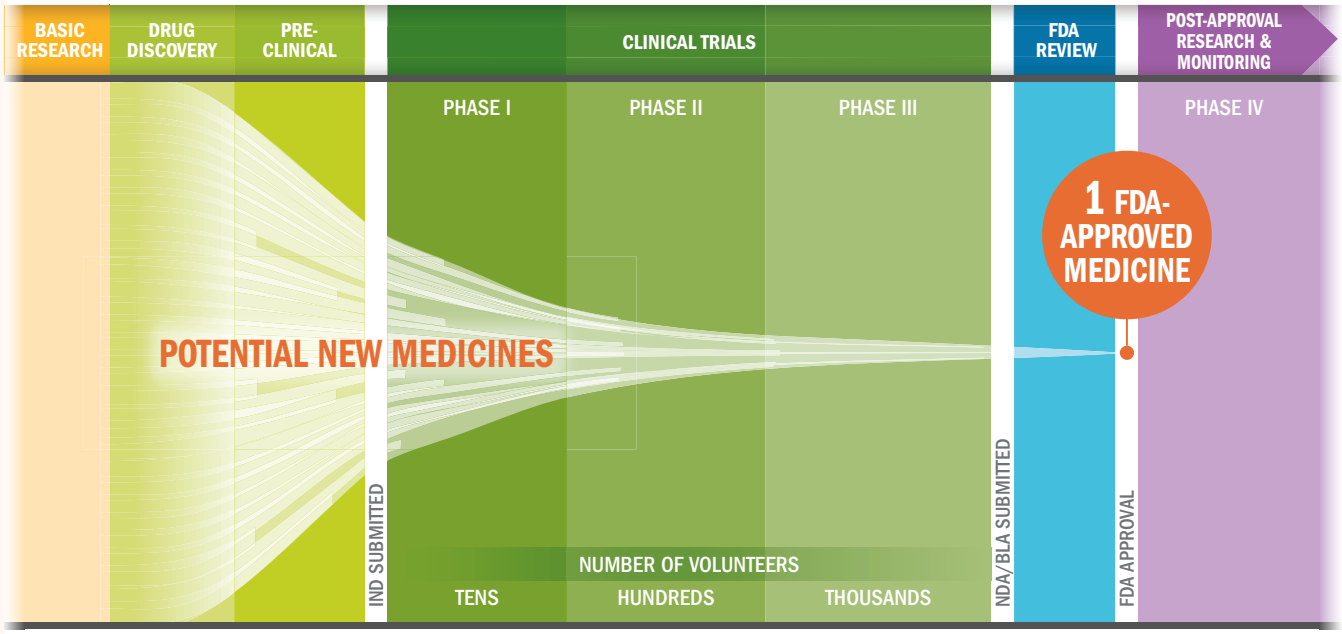
Biopharmaceutical research companies supported the generation of $18.3 billion in direct and indirect economic activity in Wisconsin.

Wisconsinites are also positively impacted by the presence of a strong biopharmaceutical sector and clinical trials in the state. Innovative treatments developed today are helping to expand the frontiers of science and could lead to more and better treatments for patients in the future.

In Wisconsin, this innovation is the result of a successful collaboration between biopharmaceutical companies and local research institutions. And the sector's growth and strength in Wisconsin are driving our economy and communities forward.

THE BIOPHARMACEUTICAL RESEARCH AND DEVELOPMENT PROCESS

From drug discovery through FDA approval, developing a new medicine takes at least 10 years on average and costs an average of $2.6 billion.* Less than 12% of the candidate medicines that make it into Phase I clinical trials will be approved by the FDA.



Key: IND: Investigational New Drug Application, NDA: New Drug Application, BLA: Biologics License Application

* The average R&D cost required to bring a new, FDA-approved medicine to patients is estimated to be $2.6 billion over the past decade (in 2013 dollars), including the cost of the many potential medicines that do not make it through to FDA approval.

Source: PhRMA adaptation based on Tufts Center for the Study of Drug Development (CSDD) Briefing: "Cost of Developing a New Drug," Nov. 2014. Tufts CSDD & School of Medicine and US FDA Infographic, "Drug Approval Process," http://www.fda.gov/downloads/Drugs/ResourcesForYou/Consumers/UCM284393.pdf (accessed Jan. 20, 2015).

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