



**Soroka**  
Clinical  
Research  
Center

# SOROKA'S DATA UNIT

## YOUR PARTNER FOR EMR-BASED RESEARCH

Data Unit at Soroka's Clinical Research Center (SCRC) collaborates with academic and industry researchers in the analysis of rich, longitudinal EMR data, uncovering insights on treatment outcomes and disease trends to advance healthcare innovation

# ABOUT

## Unmatched Data Magnitude

Our data unit leverages EMR data to support various research programs, from epidemiological analyses to clinical trials and outcome-based research. As a part of Clalit Health Services, Israel's largest HMO, we have access to over two decades of data covering more than **7 million patients** across 14 leading hospitals and 1,500 community clinics throughout Israel.

## Available Data

Demographics

Diagnoses

Vital signs

Lab tests

Vaccines

Imaging

Outpatient clinic visits

Medications

Surgeries & procedures

ER & hospital admissions

Financial coverage data \*

Births, pregnancies & newborns\*\*

\* Referrals to hospitals, imaging, lab tests

\*\* linked maternal-newborn data

## OUR SERVICES

We provide a “**one-stop shop**” for companies and academic researchers conducting EMR-based studies. Our activity encompasses all the steps needed for your research success:

- Rapid assessment of data available for research
- Pairing a client with an expert PI in the specific clinical field
- Development/Refinement of protocol
- Extraction, cleaning, and advanced statistical analysis of the data
- Regulatory submission to ethics and data committees
- Generation of comprehensive data reports

## EACH PROJECT IS ASSIGNED WITH A TEAM OF EXPERTS

Each project is assigned with a team supporting the research objectives. The team typically includes:

- Principal investigator (PI)
- Epidemiologist
- PhD-level Biostatistician
- Data science researcher
- Data analyst
- Research assistant

# WHAT STUDIES CAN YOU CONDUCT WITH OUR EMR DATA?

## **Epidemiological Studies:**

Examine disease incidence, prevalence, and trends; identify risk factors; and investigate regional health disparities.

## **Clinical Outcomes:**

Evaluate treatment effectiveness, long-term outcomes, risk stratification, and comparative effectiveness.

## **Pharmacological Research:**

Monitor adverse drug reactions, drug utilization patterns, interactions, and post-marketing safety (pharmacovigilance).

## **Program Evaluation:**

Assess the impact of chronic disease management and preventive care initiatives.

## **Predictive Modeling:**

Build advanced models for disease progression, hospital readmission risks, and mortality predictions.

## **Machine Learning Projects:**

We collaborate with startups to leverage EMR data in developing innovative tools, from diagnostic algorithms to treatment optimization and operational efficiency solutions.

# STUDIES INVOLVING EMR DATA AND BIOBANK SPECIMENS

At Soroka Clinical Research Center, we provide EMR data and biological specimens via our Biobank, facilitating precise modeling, biomarker discovery, and advancements in patient care.

## **Early Biomarker Discovery:**

Combine EMR data to identify patient cohorts and analyze biobank samples (e.g., blood, tissue) to discover biomarkers for disease diagnosis, progression, and prognosis.

## **Predictive Models for Disease:**

Integrate clinical data (e.g., medical history, lab results) with molecular data (e.g., gene expression, protein levels) to predict disease onset, progression, and outcomes.

## **Pharmacogenomics:**

Correlate genetic data from biobank specimens with EMR-recorded drug responses to identify profiles predicting drug efficacy and safety.

## **Adverse Drug Reactions:**

Investigate medication responses using EMR data alongside biobank biomarkers or drug concentrations.

## **Infectious Disease Susceptibility:**

Study genetic and clinical factors influencing susceptibility and immune responses to infectious diseases like COVID-19 and influenza.

## **Maternal and Child Health:**

Explore the interplay of genetics and environmental factors using biobank samples and EMR data to study pregnancy outcomes and child development.

# WHAT SETS US APART?

## **Tailored Support:**

Our team is dedicated to exceeding expectations and driving your research to success.

## **Unparalleled Data Access:**

Gain access to over 20 years of EMR data from 7 million patients, spanning both community and hospital settings.

## **Access to Leading Research Experts:**

Our location within a leading medical center allows us to connect each project with the ideal principal investigator, ensuring deep expertise in leveraging the data's complexity and unique advantages.

## **Our Team:**

Our team of seasoned professionals brings extensive experience and unwavering professionalism to every project, guaranteeing high-quality support and outcomes.

## **Advanced Free Text Research:**

For select projects, we offer in-depth research of free-text data available at Soroka Medical Center, unlocking valuable insights from unstructured information.

## **Integrated Data Unit & Biobank Resources:**

Operating under the SCRC umbrella, our Data Unit and Biobank enable groundbreaking studies that combine EMR data with human specimens, fostering comprehensive and innovative research opportunities.

# HOW DOES THE PROCESS WORK?

## Assessment of Project Feasibility

Begin by filling out a simple online form to provide initial details about your research: [Feasibilitystudysoroka.org](https://Feasibilitystudysoroka.org)

Within three business days, we'll assess the accessible population size for your study and provide feedback on feasibility.

## Defining Your Research Needs

Our team will meet with you to clarify your research goals and determine if further feasibility analyses are required to ensure a comprehensive plan.

## Protocol Development & Refinement

A principal investigator from Soroka Medical Center, an expert in your research area, will collaborate with your team to finalize and optimize the study protocol.

## Ethics & Data Committee Submissions

We handle all submissions to the local Helsinki Committee and the national data committee. Our ethics committee meets monthly, with submission deadlines two weeks prior to each meeting.

## Signing an agreement

Agreement ensures all parties are aligned on milestones, roles, and the safeguarding of data confidentiality and integrity throughout the study.



# LET'S COLLABORATE TO TURN DATA INTO DISCOVERY

Partner with us to unlock the full potential of EMR data for your research needs. Whether you're conducting epidemiological studies, clinical trials, or outcomes-based research, our data unit offers unparalleled access to comprehensive patient records and clinical insights. Together, we can identify trends, evaluate treatments, and advance healthcare innovation.



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