STATSSY / RESEARCH TOPIC COLLECTION

50 Nursing Research Topics

Study designs, statistical methods, dataset access and related university projects for BSN, MSN and DNP research.

50	10	9	2023–2026
Research questions	Nursing sub-fields	Dataset sources	Project years

How to use this guide

• Choose a relevant nursing problem and review two or three suggested questions.

• Check each dataset’s access requirements: Open, Free login or Apply. Some clinical datasets require training and approval.

• Confirm the dataset contains the necessary outcome and predictors before committing to your research design.

• Read the linked related university project for inspiration on study structure and outcome measurement.

• Refine the population, care setting, timeframe and research objective with your faculty advisor.

Research areas

01. Patient safety and quality (topics 01–05)

02. Nurse burnout and wellbeing (topics 06–10)

03. Workforce, retention and leadership (topics 11–15)

04. Critical care and emergency nursing (topics 16–20)

05. Maternal and neonatal nursing (topics 21–25)

06. Paediatric nursing (topics 26–30)

07. Older adults and long-term care (topics 31–35)

08. Mental health nursing (topics 36–40)

09. Infection prevention and control (topics 41–45)

10. Chronic disease and readmissions (topics 46–50)

Statistical tests are suggested starting points. Verify data availability, assumptions, clustering and ethics requirements for your specific project.

RESEARCH AREA 01 / 10

Patient safety and quality

Safety topics link a care process to a harm outcome. Hospital-level data from CMS is free and updated every quarter.

01 Do hospitals where patients rate nurse communication highly also score better on patient safety?

STUDY DESIGN
Cross-sectional, hospital level

STATISTICAL METHOD
Multiple linear regression

DATASET · Open CMS Provider Data

RELATED UNIVERSITY PROJECT Improving The Reporting And Tracking Of Hospital-Acquired Pressure Injuries

Melinda Rosado · Yale School of Nursing · 2025

02 Which patient factors predict an injury from a fall in hospital?

STUDY DESIGN
Retrospective cohort

STATISTICAL METHOD
Logistic regression

DATASET · Apply AHRQ HCUP

RELATED UNIVERSITY PROJECT Improving Staff Knowledge Regarding Fall Prevention Guidelines in an Acute Care Setting

Opeyemi Adebayo · Walden University · 2026

03 Does a change in diabetes medication during admission lower 30-day readmission?

STUDY DESIGN
Retrospective cohort

STATISTICAL METHOD
Logistic regression

DATASET · Open Diabetes 130-US Hospitals (UCI)

RELATED UNIVERSITY PROJECT Unintentional Medication Discrepancies in Outpatient Cardiac Procedures: Identifying Modifiable Barriers

Julie M. Turner · University of Kentucky · 2026

04 Do trusts where staff feel safe raising concerns have better safety culture scores?

STUDY DESIGN

Cross-sectional, trust level

STATISTICAL METHOD

Pearson correlation and linear regression

DATASET · Open NHS Staff Survey

RELATED UNIVERSITY PROJECT Implementation Of Teamstepps® In A Peri-Operative Environment In An Urban Medical Center

Chris Chantler · Yale School of Nursing · 2025

05 Which staff groups report the most violence from patients and the public?

STUDY DESIGN

Repeated cross-sectional

STATISTICAL METHOD

Chi-square test with trend analysis

DATASET · Open NHS Staff Survey

RELATED UNIVERSITY PROJECT Developing A Standardized Workplace Violence Prevention Program For Healthcare Leaders To Enhance Safety

Kaleena Soorma · Yale School of Nursing · 2025

RESEARCH AREA 02 / 10

Nurse burnout and wellbeing

Burnout topics are popular because the data already exists. The NHS Staff Survey and NSSRN both measure it every cycle.

06 Which NHS staff groups report the highest burnout?

STUDY DESIGN
Cross-sectional

STATISTICAL METHOD
One-way ANOVA

DATASET · Open NHS Staff Survey

RELATED UNIVERSITY PROJECT Reducing Nurse Burnout

Oluwarotimi Tunde Aborisade · Walden University · 2026

07 Does support from a line manager lower burnout among nurses?

STUDY DESIGN
Cross-sectional, trust level

STATISTICAL METHOD
Multiple linear regression

DATASET · Open NHS Staff Survey

RELATED UNIVERSITY PROJECT Stronger Together: Exploring the Impact of Peer Support Meetings on Stress and Burnout in Ambulatory Nurse Managers

Sara Wellman · University of Kentucky · 2026

08 Does working extra unpaid hours link to higher burnout?

STUDY DESIGN
Cross-sectional

STATISTICAL METHOD
Linear regression

DATASET · Open NHS Staff Survey

RELATED UNIVERSITY PROJECT Evaluation of a Brief Mindfulness-Based Intervention of Work-Related Stress, Job Satisfaction, Retention, and Quality Care: A Quality Improvement (QI) Project

Laura M. Bragg · University of Kentucky · 2025

09 Are nurses who report burnout more likely to plan to leave their job?

STUDY DESIGN

Cross-sectional

STATISTICAL METHOD

Logistic regression

DATASET · Open NSSRN

RELATED UNIVERSITY PROJECT Evaluating the Burnout Mitigating Effects of a Structured Mentorship Program in Newly Hired Advanced Practice Providers

Melissa Soper · University of Kentucky · 2026

10 Does burnout differ between nurses in paediatric and adult settings?

STUDY DESIGN

Cross-sectional

STATISTICAL METHOD

Chi-square test and logistic regression

DATASET · Open NSSRN

RELATED UNIVERSITY PROJECT The Impact of Code Lavender on Compassion Fatigue and Burnout of Pediatric Bedside Staff

Sara L. Castle · University of Kentucky · 2025

RESEARCH AREA 03 / 10

Workforce, retention and leadership

Workforce topics answer questions managers care about. Who leaves, who stays, and what makes the difference.

11 Which nurses are most likely to leave the NHS, and has it changed since 2020?

STUDY DESIGN
Trend analysis

STATISTICAL METHOD
Poisson regression on leaver counts

DATASET · Open NHS Workforce Statistics

RELATED UNIVERSITY PROJECT Changing The Paradigm For Newly Graduated Nurses' Intent To Leave Through An Emeritus Rn Virtual Mentoring Program In An Acute Care Hospital Setting

Lacy Eynon · Yale School of Nursing · 2025

12 Does holding a BSN or higher degree predict job satisfaction in nurses?

STUDY DESIGN
Cross-sectional

STATISTICAL METHOD
Ordinal logistic regression

DATASET · Open NSSRN

RELATED UNIVERSITY PROJECT Development of an Evidence Based Orientation Model for the Newly Graduated Nurse

Sandra L. Takach · Otterbein University · 2025

13 Do nurses in leadership roles report higher job satisfaction?

STUDY DESIGN
Cross-sectional

STATISTICAL METHOD
Ordinal logistic regression

DATASET · Open NSSRN

RELATED UNIVERSITY PROJECT New Leader Mentoring: Guiding Nursing Leaders Of The Future

Renee Marie Hammond · Yale School of Nursing · 2025

14 How fast has the share of internationally recruited nurses in the NHS grown?

STUDY DESIGN

Trend analysis

STATISTICAL METHOD

Interrupted time series

DATASET · Open NHS Workforce Statistics

RELATED UNIVERSITY PROJECT Psychological Strain and Infrastructure Deficit and the Decision to Migrate Among Healthcare Workers From Lagos, Nigeria

Fatima Adeboye · Walden University · 2026

15 Does intent to leave differ by work setting and shift pattern?

STUDY DESIGN

Cross-sectional

STATISTICAL METHOD

Logistic regression

DATASET · Open NSSRN

RELATED UNIVERSITY PROJECT Evaluating Nurses' Turnover Intention and Organizational Commitment Following Stroke Unit Staffing Changes: An Evidence-based Quality Initiative

Heather Tatusko · Otterbein University · 2024

RESEARCH AREA 04 / 10

Critical care and emergency nursing

ICU topics need MIMIC-IV or eICU. Both are free, but you must finish CITI training first. Allow three to four weeks.

16 Does time to first mobilisation link to ICU length of stay?

STUDY DESIGN
Retrospective cohort

STATISTICAL METHOD
Negative binomial regression

DATASET · Apply MIMIC-IV

RELATED UNIVERSITY PROJECT Evaluating the Efficacy of a Progressive Mobility Protocol Among Adult ICU Patients

Clayton Chroust · University of Kentucky · 2025

17 Which ICU patients develop delirium, and does it lengthen their stay?

STUDY DESIGN
Retrospective cohort

STATISTICAL METHOD
Logistic regression and survival analysis

DATASET · Apply MIMIC-IV

RELATED UNIVERSITY PROJECT A Multicomponent Quality Improvement Initiative for the Early Identification, Prevention, and Management of Delirium in the Medical-Surgical Setting

Sarah K. West · Otterbein University · 2025

18 Do ICU death rates differ between teaching and non-teaching hospitals?

STUDY DESIGN
Retrospective cohort

STATISTICAL METHOD
Multilevel logistic regression

DATASET · Apply eICU Database

RELATED UNIVERSITY PROJECT A Framework For Icu Culture In Australia & New Zealand

Smriti Sukesh Kumar · Yale School of Public Health · 2025

19 Does time to first antibiotic change sepsis survival in the ICU?

STUDY DESIGN

Retrospective cohort

STATISTICAL METHOD

Cox proportional hazards regression

DATASET · Apply MIMIC-IV

RELATED UNIVERSITY PROJECT Sepsis in Sight: Immersive VR simulation for Pediatric Training

Kelsey Wagler · University of Kentucky · 2026

20 Which emergency visits for chest pain end in a hospital admission?

STUDY DESIGN

Retrospective cohort

STATISTICAL METHOD

Logistic regression

DATASET · Apply AHRQ HCUP

RELATED UNIVERSITY PROJECT A Triage Process to Decrease Door to EKG Times for Adult Patients with Suspected Cardiac Abnormalities in the Emergency Department

Khay Douangdara · University of Kentucky · 2025

RESEARCH AREA 05 / 10

Maternal and neonatal nursing

Birth records in HCUP let you study complications and stays. NHS data covers the midwifery workforce.

21 Which births carry the highest risk of severe maternal complications?

STUDY DESIGN
Retrospective cohort

STATISTICAL METHOD
Logistic regression

DATASET · Apply AHRQ HCUP

RELATED UNIVERSITY PROJECT Provider Mindfulness: Changing Implicit Bias And Improving Perinatal Health Outcomes For Patients With Adverse Social Determinants Of Health

Nina Sarah Simon · Yale School of Nursing · 2025

22 Do hospitals with fewer early elective deliveries get better patient experience ratings?

STUDY DESIGN
Cross-sectional, hospital level

STATISTICAL METHOD
Multiple linear regression

DATASET · Open CMS Provider Data

RELATED UNIVERSITY PROJECT Educating Community Health Workers: To improve Maternal and Infant Health in Rural Areas

Katerina Markova Shikhvarg · University of San Francisco · 2025

23 Do women with gestational diabetes have longer hospital stays after birth?

STUDY DESIGN
Retrospective cohort

STATISTICAL METHOD
Negative binomial regression

DATASET · Apply AHRQ HCUP

RELATED UNIVERSITY PROJECT The Effect of Exercise on the Development of Gestational Diabetes Mellitus in Pregnancy: A Systematic Review of Literature

Abigail Reiche · University of Arkansas · 2025

24 Which newborns are most likely to need neonatal intensive care?

STUDY DESIGN

Retrospective cohort

STATISTICAL METHOD

Logistic regression

DATASET · Apply AHRQ HCUP

RELATED UNIVERSITY PROJECT Implementation of Evidence-Based Neonatal Bathing Guidelines in a Level IV NICU: A Quality Improvement Project

Holly E. Cole · Grand Valley State University · 2026

25 Has the midwifery workforce in England kept pace with demand since 2015?

STUDY DESIGN

Trend analysis

STATISTICAL METHOD

Linear trend and joinpoint regression

DATASET · Open NHS Workforce Statistics

RELATED UNIVERSITY PROJECT Postpartum Visitation Policies

Jenna B. Holderman and Morgan E. Matthews · University of Arkansas · 2023

RESEARCH AREA 06 / 10

Paediatric nursing

The HCUP Kids' Inpatient Database is the go-to source here. It covers millions of US child hospital stays.

26 Does high flow oxygen lengthen hospital stays for children with bronchiolitis?

STUDY DESIGN
Retrospective cohort

STATISTICAL METHOD
Negative binomial regression

DATASET · Apply AHRQ HCUP

RELATED UNIVERSITY PROJECT Providing Safe Gastric Feedings In Pediatric Patients On High Flow Nasal Cannula Respiratory Support

Olivia Joyce Chan · Yale School of Nursing · 2025

27 Do children with long intensive care stays have higher readmission rates?

STUDY DESIGN
Retrospective cohort

STATISTICAL METHOD
Logistic regression

DATASET · Apply AHRQ HCUP

RELATED UNIVERSITY PROJECT Facilitating Caregiver Involvement in Reducing Delirium Among Critically Ill Children in the Pediatric Intensive Care Unit

Emma R. Bilberry · University of Kentucky · 2025

28 Are child asthma admissions falling, and in which groups?

STUDY DESIGN
Trend analysis

STATISTICAL METHOD
Poisson regression

DATASET · Apply AHRQ HCUP

RELATED UNIVERSITY PROJECT Asthma and Peak Flow Assessments Based on NHLBI Asthma Guidelines

Julia Gliceria Almario Regalado · University of San Francisco · 2024

29 Is childhood obesity linked to longer hospital stays?

STUDY DESIGN
Retrospective cohort

STATISTICAL METHOD
Negative binomial regression

DATASET · Apply AHRQ HCUP

RELATED UNIVERSITY PROJECT Obesity Education For Hmong Adolescents With Obesity In Pediatric Primary Care

Esther Kim · Yale School of Nursing · 2025

30 Are emergency visits by young people for mental health rising, and in which months?

STUDY DESIGN
Time series

STATISTICAL METHOD
Seasonal time series model

DATASET · Apply AHRQ HCUP

RELATED UNIVERSITY PROJECT Implementing a Self-Administered CRAFFT Screening Tool in a Pediatric Mental Health Setting

Michael Nguyen · Grand Valley State University · 2026

RESEARCH AREA 07 / 10

Older adults and long-term care

CMS publishes staffing and quality scores for every US nursing home. That makes staffing versus outcome topics easy to run.

31 Do nursing homes with more RN hours use fewer antipsychotics?

STUDY DESIGN
Cross-sectional, facility level

STATISTICAL METHOD
Multiple linear regression

DATASET · Open CMS Provider Data

RELATED UNIVERSITY PROJECT A Model For Improving Nursing Homes' Quality Metrics Through Systems' Policy Change In Widespread Antipsychotic Use

Hugo Masangkay Gozos · Yale School of Nursing · 2025

32 Do nursing homes with more nurse staffing have fewer falls with major injury?

STUDY DESIGN
Cross-sectional, facility level

STATISTICAL METHOD
Multiple linear regression

DATASET · Open CMS Provider Data

RELATED UNIVERSITY PROJECT Implementing Hourly Rounding in Reducing the Rate of Falls Among Older Adults in Long-Term Care Facilities

Alfred Amaechi · Sacred Heart University · 2024

33 Which older adults develop delirium after hip fracture surgery?

STUDY DESIGN
Retrospective cohort

STATISTICAL METHOD
Logistic regression

DATASET · Apply AHRQ HCUP

RELATED UNIVERSITY PROJECT Implementation of Evidenced Based Practice Guidelines for Reducing Emergence Delirium in Elderly Patients Undergoing a Total Hip Replacement

Luke D. Kleinfelder · Otterbein University · 2026

34 Does a dementia diagnosis increase length of stay and readmission?

STUDY DESIGN

Retrospective cohort

STATISTICAL METHOD

Negative binomial and logistic regression

DATASET · Apply AHRQ HCUP

RELATED UNIVERSITY PROJECT Developing A Decision Tree To Address Behavioral And Psychological Symptoms Of Dementia In The Primary Care Setting

Lolita Tramel · Yale School of Nursing · 2025

35 Does taking many medicines predict readmission in older diabetic patients?

STUDY DESIGN

Retrospective cohort

STATISTICAL METHOD

Logistic regression

DATASET · Open Diabetes 130-US Hospitals (UCI)

RELATED UNIVERSITY PROJECT Diabetes Self-Management Education for Older Adults in Primary Care

Makilah Rae Furlan · Otterbein University · 2025

RESEARCH AREA 08 / 10

Mental health nursing

Mental health nursing topics often sit on workforce or readmission data. Both are free or close to free.

36 Do mental health nurses report more burnout than nurses in other fields?

STUDY DESIGN
Cross-sectional

STATISTICAL METHOD
Independent t-test and chi-square

DATASET · Open NHS Staff Survey

RELATED UNIVERSITY PROJECT Mindfulness Based Self Care Toolkit for Psychiatric Healthcare Staff

Harkirat K. Bajwa · University of San Francisco · 2023

37 Has the mental health nursing workforce in England grown or shrunk since 2015?

STUDY DESIGN
Trend analysis

STATISTICAL METHOD
Linear trend analysis

DATASET · Open NHS Workforce Statistics

RELATED UNIVERSITY PROJECT The Effectiveness of Targeted Education on Improving Nurses' Self-Efficacy in Caring for Psychiatric Patients on Medical Surgical Units

Rachel Shirey · Otterbein University · 2023

38 Are ICU patients with depression or anxiety more likely to be readmitted?

STUDY DESIGN
Retrospective cohort

STATISTICAL METHOD
Logistic regression

DATASET · Apply MIMIC-IV

RELATED UNIVERSITY PROJECT Implementing A Screening Algorithm For Depression Diagnosis, Management And Referrals In Primary Care

Jorge Correia · Yale School of Nursing · 2025

39 Which adults with substance use disorder are readmitted within 30 days?

STUDY DESIGN

Retrospective cohort

STATISTICAL METHOD

Logistic regression

DATASET · Apply AHRQ HCUP

RELATED UNIVERSITY PROJECT Reducing 30-Day Psychiatric Inpatient Hospital Readmission of Mentally Ill Homeless Men with Substance Use Disorder by Using a Discharge Checklist

Chibuogwu E. Ogbuka · University of San Francisco · 2023

40 Does a mental health diagnosis lengthen stays for medical admissions?

STUDY DESIGN

Retrospective cohort

STATISTICAL METHOD

Negative binomial regression

DATASET · Apply AHRQ HCUP

RELATED UNIVERSITY PROJECT Nurse-Led Clinical Practice Guideline to Improve Medication Adherence Among Telehealth Adult Patients with Mild to Moderate Mental Illness

Olajumoke Akenroye · Walden University · 2026

RESEARCH AREA 09 / 10

Infection prevention and control

CMS reports infection ratios for every US hospital. ICU databases let you study infections at patient level.

41 Which hospital features predict higher central line infection ratios?

STUDY DESIGN
Cross-sectional, hospital level

STATISTICAL METHOD
Multiple linear regression

DATASET · Open CMS Provider Data

RELATED UNIVERSITY PROJECT Enhancing Nurse Competency: Proper Application of Chlorhexidine Gluconate Dressings to Prevent Central Line Associated Bloodstream Infections

Joseph Earich · Otterbein University · 2025

42 Are catheter-associated urinary infection ratios linked to hospital size and teaching status?

STUDY DESIGN
Cross-sectional, hospital level

STATISTICAL METHOD
Multiple linear regression

DATASET · Open CMS Provider Data

RELATED UNIVERSITY PROJECT Reducing Catheter-Associated Urinary Tract Infections Through Staff Education in a Nursing Home Setting

Aderonke Abimbola Abatan · Walden University · 2026

43 Which ventilated ICU patients develop pneumonia?

STUDY DESIGN
Retrospective cohort

STATISTICAL METHOD
Logistic regression

DATASET · Apply MIMIC-IV

RELATED UNIVERSITY PROJECT Educating Nurses on Frequent Oral Care for Mechanically Ventilated Patients: An Evidence-Based Practice Project Proposal

Grace Alford, Susan Butz, Ruth Chavez and Joy Shoemaker · Otterbein University · 2024

44 How much does a C. difficile infection add to hospital stay and cost?

STUDY DESIGN
Retrospective cohort

STATISTICAL METHOD
Propensity score matching

DATASET · Apply AHRQ HCUP

RELATED UNIVERSITY PROJECT Improving Nasal Decolonization Rates in the Inpatient Medical-Surgical Setting
Francesca Annunziato Royer · Sacred Heart University · 2026

45 Is sepsis on arrival more deadly than sepsis that starts in the ICU?

STUDY DESIGN
Retrospective cohort

STATISTICAL METHOD
Multilevel logistic regression

DATASET · Apply eICU Database

RELATED UNIVERSITY PROJECT Improving Blood Culture Contamination Rates in the Emergency Department: An Evidence-Based Quality Improvement Project
Kerri Maciejko · Sacred Heart University · 2025

RESEARCH AREA 10 / 10

Chronic disease and readmissions

Readmission topics are a favourite for DNP projects. The UCI diabetes and Kaggle stroke files need no approval at all.

46 Which diabetic patients are readmitted within 30 days?

STUDY DESIGN
Retrospective cohort

STATISTICAL METHOD
Logistic regression

DATASET · Open Diabetes 130-US Hospitals (UCI)

RELATED UNIVERSITY PROJECT Enhancing Patient Understanding and Reducing Readmissions: Implementing a Structured Discharge Teaching Protocol in a Medical-Surgical Unit

Jawany Joseph · Sacred Heart University · 2025

47 Does testing HbA1c during admission change 30-day readmission?

STUDY DESIGN
Retrospective cohort

STATISTICAL METHOD
Logistic regression

DATASET · Open Diabetes 130-US Hospitals (UCI)

RELATED UNIVERSITY PROJECT Process Evaluation of the Cheers Automated A1c Follow-Up Reminder System in Primary Care

Heather E. Lewis · Grand Valley State University · 2026

48 Which risk factors best predict stroke in adults?

STUDY DESIGN
Cross-sectional

STATISTICAL METHOD
Logistic regression

DATASET · Free login Stroke Prediction Dataset (Kaggle)

RELATED UNIVERSITY PROJECT Establishing an Advanced Practice Provider-led Transient Ischemic Attack clinic: A Quality Improvement Initiative

Brittany A. Young · University of Kentucky · 2026

49 Does high blood pressure raise stroke risk more in older adults?

STUDY DESIGN

Cross-sectional

STATISTICAL METHOD

Logistic regression with an interaction term

DATASET · Free login Stroke Prediction Dataset (Kaggle)

RELATED UNIVERSITY PROJECT Standardized Home Blood Pressure Log Implementation for Patients with Hypertension to Increase Patient Awareness and Clinical Action

Ashley Alcala · Grand Valley State University · 2026

50 Do hospitals with lower heart failure readmissions score higher on discharge information?

STUDY DESIGN

Cross-sectional, hospital level

STATISTICAL METHOD

Pearson correlation and linear regression

DATASET · Open CMS Provider Data

RELATED UNIVERSITY PROJECT Integrating Evidence-Based Congestive Heart Failure Guidelines in the Electronic Health Record for Discharge Planning: Integrative Review

Hilda Manzo-Luna · University of San Francisco · 2026

From topic to project

- Start from a problem you encounter in clinical practice or nursing education.
- Confirm variables and data availability using the dataset documentation.
- Select the model based on design, outcome scale and independence of observations.
- Allow time for ethical review, protected clinical-data access and required training.
- Read related studies and define an original, feasible contribution.

Dataset access key

Open: normally publicly accessible without an application.

Free login: requires a registered account.

Apply: approval, training or institutional steps may be required before accessing the data.

Discuss your research topic

Book a free introductory discussion to review your research idea, dataset feasibility and proposed statistical analysis.

Schedule a meeting with Statssy

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