

# LTC Data Collaborative

## Research Categories and examples



One of the purposes of the Data Cooperative is to enable academic researchers to conduct effectiveness studies – that is, to evaluate what improves resident care and outcomes in nursing centers. These can use either an observational (use existing data to compare outcomes on what works) or interventional study design (having some residents or facilities implement a treatment compared to a control group).

There are many possible topics to compare. We have grouped possible focus areas into 12 broad categories, ranging from clinical conditions to staff education and treatments. Examples within each of the 12 categories are provided below.

### 1. Clinical care

- ADL care
- Care transitions (e.g., between settings or discharge to home)
- Change in condition (e.g., recognition and management)
- Clinical monitoring
- Communication (e.g., between nursing and primary care providers)
- Deprescribing
- Education, including modes and topics (either to staff or residents/families)
- Falls prevention
- Health technologies (e.g., continuous glucose monitors, automated vital signs)
- Infection control
- Nutrition
- Pain assessment and management
- Patient function and independence
- Prescribing
- Psychological and behavior symptoms of dementia

### 2. Clinical conditions

- Diabetes
- Dementia and cognitive impairment
- Falls
- Frailty
- Functional impairment (e.g., ADLs)
- Heart failure
- Injuries
- Mental health (e.g., depression, or psychosis)
- Mobility
- Pain
- Post-surgical management
- Pressure ulcers
- Sensory deficits (e.g., hearing, vision, or neuropathy)
- Stroke
- Substance use disorders (e.g., alcohol or opioid)
- Speech disorders
- Swallowing disorders
- Traumatic Brain Injury
- Weight loss

### **3. Care models**

- Advanced practice clinicians (i.e., NPs or PAs)
- Alternative staffing (e.g., medication technicians or feeding assistants)
- Greenhouse or similar
- Long-term care pharmacy consulting and programs
- Telehealth (e.g., medicine or rehabilitation services)

### **4. Clinical monitoring and testing**

- Change in condition
- Clinical laboratory tests
- Cognitive function
- Electrocardiograms
- Functional outcomes
- Glucose monitoring
- Point of care testing (e.g., urinalysis, INR, or glucose)
- Remote monitoring (e.g. vitals, movement, falls, or glucose)
- Radiology, including ultrasound
- Vital signs
- Weight

### **5. Dementia care**

- Activities
- Antipsychotics and other psychotropic medications
- Behavioral and psychological symptoms
- Communication
- Non-pharmacological management
- Staff education
- Resident-resident interactions
- Staff-resident interactions
- Staff experiential learning
- Wandering and elopement

### **6. Environment**

- Air quality
- Built environment (room, floor design)
- Call lights
- Dining
- Disaster preparedness
- Family visitation
- Flooring (e.g., to prevent falls)
- Lighting
- Noise
- Secure unit

## **7. Equipment**

- Adaptive devices (e.g., feeding utensils or amplification devices)
- Beds
- Chairs
- Mechanical lifts
- Walkers or wheelchairs
- Visual aids

## **8. Infections and infection control**

- Antibiotic stewardship
- C. difficile, norovirus
- Cellulitis
- COVID-19
- Environmental cleaning
- Influenza
- Infection control (e.g., hand hygiene, masking, or PPE)
- Multidrug resistant organisms (e.g., MRSA or VRE)
- Pneumonia
- Sepsis
- Upper respiratory infections (e.g., RSV, human metapneumovirus)
- Urinary tract infections
- Vaccines
- Wound infections

## **9. Medications**

- Drug interactions
- Administration of
- Prescribing of
- Medication management and monitoring
- Medication reconciliation
- Pain management
- Polypharmacy

## **10. Staff education**

- Clinical topics
- Dementia care
- Infections and infection management
- Communication techniques

## **11. Technology**

- Adaptive lighting
- Alarms or alerts
- Barcode Medication Administration Record (MAR) systems
- EMR, including prompts or reminders
- Monitors
- Pumps for administering intravenous therapies
- Robotic pets or dolls
- Telemedicine
- Telemonitoring

## **12. Treatments**

- Biologic therapies
- Dialysis
- End-of-life or hospice
- Intravenous medications or fluids
- Medical devices (e.g., insulin pumps or pacemakers)
- Medications for various conditions
- Palliative care
- Rehabilitation services (e.g., occupational, physical, respiratory, or speech)
- Recreational therapy and activities
- Respiratory treatments (e.g., inhalers or nebulizers)
- Respite care