Every day we make individualized treatment decisions with patients and their families in the skilled nursing facility. All too often, however, these decisions are not informed by evidence. Much of the evidence base for treatment of common medical chronic and acute conditions comes from trials that enrolled patients who look quite different from our frail nursing home population. Barriers for conducting nursing home–based research have long been cited, including the frail older population of patients who are difficult to recruit due to comorbidities, poor mobility, cognitive impairment, lack of patient-perceived benefit, and difficulty obtaining informed consent. In addition, nursing facilities have been called ‘unstable environments’ for clinical research due to their high rates of staff turnover, relatively short length of stay for patients receiving skilled services, and unpredictable external forces such as frequent regulatory monitoring and change.

However, research in nursing homes is now occurring, and as a few dedicated nursing home researchers find others in their academic environments to work with, nursing home research collaboratives are forming. We present some examples of innovative initiatives being conducted around the United States to engage and expand nursing home research using out-of-the-box thinking.

Community Living Center Collaboratives

The Department of Veterans Affairs operates 135 Community Living Centers (CLCs) across the country, which are linked with a common medical record. The leadership of the CLCs is supportive of using the linked model of community living centers to demonstrate and improve the quality, safety, and value of CLC care for veterans. The VA Health Services Research Center of Innovation in Long-Term Services and Supports (COIN-LTSS) at the Providence VA Medical Center has been a hub of research activity, with collaborative research proposals focused on quality improvement, readmission reduction, staff engagement, and antimicrobial stewardship. With its expertise in LTSS data, COIN-LTSS engages with CLC clinicians, researchers, and leaders across the system. For example, COIN-LTSS researchers are collaborating with the Boston VA to measure falls and delirium risk. In addition, a CLC research interest group and a complex patient task force are engaging with clinicians to address and measure the unique features of veterans in community living centers. Another project is designed to increase CLC staff and resident engagement, build relationships, and improve resident-centered care.

The Nursing Home Collaborative, Indiana

The Nursing Home Collaborative (NHCl) workgroup is an informal network of Indiana University faculty and regional colleagues interested in conducting research and quality improvement projects in the home setting. The NHCl is based in the Indiana University Center for Aging Research (IUCAR). It was started by a small group of nursing home–focused researchers at IUCAR as a way to help generate and conduct high-quality research in this care setting. The monthly NHCl meetings provide a forum for feedback on grant ideas and works in progress. An explicit goal is to enhance awareness of others’ projects to encourage collaboration. NHCl members regularly review journal articles, paying particular attention to methodology. The NHCl fosters peer technical support in navigating research tools such as the Minimum Data Set (MDS) and in developing research partnerships with nursing homes.

Since its inception, the NHCl has been multidisciplinary. Attendees include faculty from the university School of Medicine and School of Nursing and from other universities in the region. In addition, research staff who work primarily on nursing-home–related projects regularly participate. Some researchers have attended once or twice to present projects for feedback but do not regularly attend. Attendance fluctuates, but there are generally about eight to ten participants in each meeting. The NHCl has also invited community and industry stakeholders to discuss regulatory or policy issues that may relate to research.

IUCAR has provided internal support for the NHCl, particularly with funding for dedicated research coordinator time. The research coordinator helps organize and convene the monthly meetings, but also is available to support institutional review board submissions.

The NHCl has helped support the development of multiple projects, most notably bringing increased interdisciplin- ary perspectives to the OPTIMISTIC (Optimizing Patient Transfers, Impacting Medical Quality, Improving Symptoms: Transforming Institutional Care) project. OPTIMISTIC is one of six sites in the country participating in a Center for Medicare & Medicaid Innovations demonstration project. The goal of the demonstration project is to reduce avoidable hospital transfers of long-stay nursing home residents. At a cost of more than $30 million, this 18-month project is testing both a clinical model and new Medicare payment codes to incentivize and support providing high-quality care in place. The OPTIMISTIC network now involves 44 nursing homes across Indiana. OPTIMISTIC has required the development of multiple key partnerships among industry, government, and academia. The infrastructure built for OPTIMISTIC, including research staff and data managers with expertise in nursing home–related work, provides a platform for new projects.

In addition, the NHCl provided feedback into the design of an innovative model for care of SNF residents with heart failure, and of a polypharmacy project funded through a civil monetary penalty from the Indiana State Department of Health. The NHCl provides a forum to discuss successes or roadblocks on these funded projects as well as specific ideas to leverage the networks created by them for new initiatives.

Post-Acute Care Research and Team Science, Colorado

At the University of Colorado and the Denver VA Medical Center, the Post-Acute Care Research and Team Science (PACRATS) group meets monthly to discuss ongoing research, troubleshoot difficulties in conducting long-term care research, and explore funding opportunities. The impetus for establishing the group was the frustration of several researchers who had difficulty obtaining institutional review board approval for nursing home studies, given concerns about this vulnerable population and the unfamiliarity of the reviewers with the environment of care, recruiting participants in nursing homes because of staff turnover, unfamiliarity with research, and fear of engaging in research. The PACRATS group of eight to 15 researchers includes geriatricians, nurses, emergency medicine physicians, physical therapists, hospitalists, palliative care specialists, an economist, and a number of predoctoral and postdoctoral trainees.

Funding was obtained for PACRATS through the Colorado Clinical and Translational Sciences Institute (CCTSI) to establish a research network through community engagement with nursing home medical directors. The group’s ultimate goal is to establish a practice-based research network of nursing homes, assisted living facilities, and home care agencies to produce high-quality research conducted in real-world post-acute and long-term care settings.

As part of this initiative, the CCTSI also has provided funding for the development of a long-term care stakeholder advisory board. The primary purpose of this advisory board is to provide insight, feedback, and recommendations to University of Colorado researchers and community research partners regarding the conduct of research in nursing homes for residents in long-term and rehabilitative care. Patients and families, staff and providers, facility administrators, corporate representatives, and consultants in medical ethics provide important perspectives that can contribute to conducting research in nursing facilities more successfully. This advisory board is tasked with vetting research projects for relevance, appropriateness, and feasibility in the nursing home setting, providing a service to researchers that may increase their chances for successful project-based partnerships with nursing facilities.

Center for Long-Term Care and Quality & Innovation, Rhode Island

Brown University’s Center for Long-Term Care Quality & Innovation (Q&I Center) is a unique partnership between academic researchers and the health care provider industry. It was established with a gift from the American Health Care Association/National Center for Assisted Living (AHCA/NCAL), which represents more than 2,000 assisted living centers and 10,000 of the 15,000 nursing homes across the United States. AHCA/NCAL sought to catalyze independent research that would advance quality in PA/LTC settings.

Collaborating with health care providers and industry leaders, the Q&I Center’s leaders identify innovators — providers, researchers, or others — who have developed transformative strategies to improve care and outcomes. They then partner with those innovators to seek funding to evaluate interventions or translate successes into practice. Where possible, the team designs studies using pragmatic methods that involve cluster-randomized, controlled trials to randomize provider sites to implement interventions as facility-level, protocol-driven approaches, or to serve as controls. This helps ensure that findings can be replicated and spread in the real-world constraints under which providers and clinicians operate.

Q&I Center researchers also leverage existing data and investigators from Brown’s internationally recognized Center for Gerontology and Healthcare
Research. This includes using administrative data sets when possible to efficiently conduct rigorous studies, ranging from small pilots to large trials. For example, Brown has a longitudinal database linking Medicare claims with resident MDS assessment data for all 3 million individuals who reside in or are transitioning through Medicare- and Medicaid-certified nursing homes annually. Such data are invaluable for conducting evaluations.

The Q&I Center works with all providers, regardless of affiliation, and has industry relationships with nursing home corporations, stakeholder organizations, and others who have a shared interest in conducting research in this setting. The Center’s researchers regularly draw on these relationships to identify innovations, recruit study sites, and disseminate information or findings. Additional information is available at www.brown.edu/go/innovation.

**A Collaborative Future**

We see these innovative collaborations as a bellwether of change in long-term care research. Certainly individual researchers have been performing important work for many years, but never have we observed so many disciplines coming together simultaneously. Our sincere hope is that the time has come for evidence-based data in our unique environments of care.

The Society’s Innovation and Implementation Workgroup is keen to explore and implement these ideas:

1. To facilitate further internal collaboration in these groups and also to share ideas across these collaboratives.
2. More importantly, to provide a formal framework to connect these collaboratives with entrepreneurs and start-ups that are seeking academic partners.

In our future columns, researchers will share their specific projects that are using innovative strategies to overcome barriers to care and research in the long-term care setting.

This column is sponsored by AMDA – the Society for Post-Acute and Long-Term Care Medicine’s Innovation and Implementation Workgroup. Dr. Nazir is the chief medical officer for Signature HealthCare and president for SHC Medical Partners. He is the treasurer for the Society as well as chair of the Society’s Innovation and Implementation Workgroup. Dr. Levy is a geriatrician board certified in hospice and palliative medicine, and is associate director of the Denver-Seattle Center for Veteran-Centric and Value-Driven Care. She is currently vice president of the Society. Dr. Rudolph is an associate professor of medicine and health policy and practice at Brown University. Dr. Unroe is assistant professor of medicine, geriatrics, and OPTIMISTIC project director at Indiana School of Medicine, Center for Aging Research.

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**COPD Management Pocket Guide**

This brand new, quick reference tool is an abbreviated version of the COPD Management Clinical Practice Guideline. Created to aid physicians, nurses, and other health care professionals in the recognition, assessment, treatment, and monitoring of COPD at the bedside. The guide includes information adapted from the GOLD initiative for chronic obstructive lung disease and an algorithm for pharmacological treatment of COPD.

**Diabetes Management Pocket Guide**

A brand new tool, the pocket guide provides help with the recognition, assessment, treatment and monitoring of diabetes, along with the latest recommendations from the American Diabetes Association, and new guidance of pneumococcal vaccination specific to post-acute and long-term care. An easy-to-use tool, the pocket guide was created for use by physicians, nurses, and other health care professionals, and includes a comprehensive medication table for pharmacological treatment of diabetes.

**Pressure Ulcers & Other Wound Clinical Practice Guideline**

Pressure ulcers and other wounds remain a major cause of mortality and morbidity in PA/LTC, affecting an estimated 2.5 million patients and costing $9.1 to $11.6 billion per year in the US. A new product, adapted from the Society’s Pressure Ulcers CPG, the Pressure Ulcers and Other Wounds CPG includes guidance on pressure ulcers, venous ulcers, and stasis ulcers. This CPG is a valuable tool for all PA/LTC health care providers, and aims to facilitate the decline of new facility-acquired pressure ulcers and other wounds through proper prevention method. Centers for Medicare & Medicaid Services MDS terminology (pressure ulcer) and National Pressure Ulcer Advisory Panel (NPUAP) terminology (pressure injury) included.

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