Rhode Island and the Providence Plantations (Rhode Island) has a population just over 1 million. The state demographics are 81.4% white, 5.7% Black or African American, 2.9% Asian, 0.6% Native American, 0.1% Hawaiian or Pacific Islander. Approximately 12.8% of the state’s population is Hispanic or Latino in origin and 13.3% of the population are immigrants. Rhode Island covers 1214 sq. miles and is 37 miles wide by 48 miles long.

Rhode Island Clinical Environment: The clinical environment within Rhode Island is highly conducive to further development of clinical research. Factors supporting clinical and epidemiological research in Rhode Island include: 1) One medical school training physicians who stay and serve the entire region; 2) one dominant adult medical-surgical hospital system with 80% of the medical school faculty; 3) one pediatric hospital with 95% of state-wide pediatric hospitalizations; 4) one level 1 trauma center with adult and pediatric capabilities, the Nation’s 5th busiest; 5) one large women’s hospital with 75% of births in the state and 90% of the deliveries in Providence; 6) one large in-patient, academic psychiatry facility; 7) one academic VA hospital; 8) Outstanding colleges of Pharmacy and Nursing at the State’s single land grant University; 9) one Department of Health serving the entire state with oversight over multiple datasets; and 10) CurrentCare, Rhode Island’s official statewide health information exchange, which includes comprehensive, longitudinal records on 50% of the state’s population, growing monthly. Combined, these factors make Rhode Island an ideal location to initiate population-based health programs, to advance clinical and epidemiological research, and to quickly implement improvements in clinical practice.

Large cohorts of patients can be assembled and our highly regionalized, non-duplicative clinical environment, with very low egress from the State, allows robust, population based studies. As a reflection of the veracity of our current clinical, demographic and epidemiologic environment, Brown University was awarded two National Children’s Study Vanguard sites. One was in Providence County and the other was in Bristol County Massachusetts. Women and Infants Hospital has a significant community base for clinical activities and well established patterns of referral for regionalized high-risk perinatal obstetrical and neonatal services. A similar situation prevails in other specialties. Rhode Island Hospital and The Miriam Hospital host large postgraduate medical training programs in all the specialties and provide the bulk of in-patient adult medical and surgical care. Butler hospital is a large psychiatric hospital with a robust academic infrastructure. Hasbro Children’s Hospital provides 95% of all in-patient pediatric care.

Rhode Island Collaborative Culture: Rhode Island research groups have formed a strong, collaborative clinical and translational network. The Universities, Hospitals and Community Organizations in Rhode Island have a rich culture of collaboration that is enhanced by having a single Medical School; an integrated academic medical center and health system composed of seven hospitals, closely affiliated with the Medical School; little program duplication and long-standing cooperation between the hospitals; a single children’s hospital with the majority of inpatient pediatric care; a single birthing hospital where ~75% of births in the state take place; one Department of Health for the entire state. This ‘Culture’ is further evidenced by the success of the NIH and NSF funded BRIN, COBRE, CTR, EPSCoR and INBRE, and collaborative programs in RI. These inter-institutional programs share common goals to positively impact biomedical research by catalyzing activity, expanding capacity, augmenting capabilities, enhancing faculty development, strengthening infrastructure, disseminating knowledge, promoting community outreach, and facilitating regional collaborations among diverse stakeholders. The administrative cooperation and scientific progress made through these cross-institutional awards is a strong indicator for collaborative success of future programs.

Rhode Island Department of Health (RIDOH): Rhode Island is unusual in having a single Department Of Health for the entire state rather than one for each county or city. With the primary mission to prevent disease and to protect and promote the health and safety of the people of Rhode Island, RIDOH oversees the licensure, certification, registration, and discipline of more than 72,000 individuals in 65 health occupations and 2,600 facilities. RIDOH also oversees the administrative and regulatory functions of 35 licensing boards whose 325 members represent the various professions and consumers. These responsibilities give RIDOH unique access to licensed health professionals, facilities, and other health-related resources in the state – a function that recently took the form of a department-wide Public Health Directory. RIDOH also operates more than 180 different programs and services through its seven divisions. In addition to regulatory functions, many of these programs include funding and operational links with numerous health care providers, employers, and community-based organizations. Each of these relationships provides a potential linkage for the translation of clinical best practices into various components of the Rhode Island community. While communicable disease
control, vital records, environmental health and other units carry out the traditional health department functions, newer and equally important functions include minority health, chronic disease prevention, health promotion, injury control, and public information. RIDOH also collects and manages large data sets used for surveillance and intervention research.

The Rhode Island Department of Health has established a population health framework, which includes three leading priorities, five strategies, and 23 population health goals. The framework is used as a road map for improving Rhode Island’s health. Through the State Innovation Model (SIM) and its culture of collaboration, other state agencies are also looking at their goals and activities within this same framework. The leading priorities are 1) Address the Social and Environmental Determinants Health, 2) Eliminate the Disparities of Health and Promote Health Equity and 3) Ensure Access to Quality Health Services, Including Vulnerable Populations.

**RIDOH Health Equity Zones:** The Centers for Disease Control and Prevention and the Rhode Island Department of Health are collaborating with 10 Health Equity Zones (HEZs) throughout Rhode Island to support innovative approaches to prevent chronic diseases, improve birth outcomes, and improve the social and environmental conditions of neighborhoods across five counties statewide. Health Equity Zones are geographic areas designed to achieve health equity by eliminating health disparities using place-based strategies to promote healthy communities. Healthy communities are places where people live, work, play, and learn. These are neighborhoods consisting of social and physical environments that support healthy choices and safe living. All HEZs grantees conducted community needs assessments in year one. HEZ work plans, based on the needs identified and prioritized in year one, focus on the residents in neighborhoods that each Health Equity Zone serves. The HEZ work plans present ideas and approaches to invest in local communities and improve population health. Community engagement is a priority in reaching these public health goals.

**Rhode Island Quality Institute (RIQI):** Founded in 2001, Rhode Island Quality Institute (RIQI) is a 501(c)(3) non-profit center of collaborative innovation with a mission to significantly improve the quality, safety, and value of healthcare and share knowledge that advances improvement in health and healthcare. RIQI’s initiatives align leading-edge healthcare improvement strategies with needs and opportunities in Rhode Island. By maintain strong partnerships with healthcare leaders, government/industry organizations and community-leading groups RIQI facilitates consensus around innovative solutions to healthcare’s challenges. As a catalyst for change, RIQI achieves solutions using health information technology (HIT), quality improvement science and quality data analytics. RIQI is committed to significantly improving the health and healthcare in the state by building on the capabilities RIQI has developed for care coordination, reduction of medical error and waste, quality measurement and improvement and engaging in the lives of consumers, patients, and families. RIQI works collaboratively to look for innovation solutions, champion change initiatives, and dedicate time, money and expertise to transforming and improving health and healthcare in Rhode Island, as measured by the “Triple Aim” of better health, better healthcare and lower cost.

RIQI operates CurrentCare, RI’s statewide Health Information Exchange (HIE). CurrentCare is a secure electronic network that allows doctors and other care givers immediate access to a patient’s up-to-date health information in order to provide the best possible and most comprehensive care. CurrentCare helps providers succeed in the transition to value-based payment systems, providing caregivers with clinical decision support tools, and opportunities to avoid unnecessary and expensive care, such as duplicate tests and avoidable ER and hospital admissions. RIQI’s robust analytics capability supports HIT-enabled quality, cost and efficiency improvements, as well as population health improvements across RI. It offers providers feedback on their clinical outcomes compared to their peers, and enables quality reporting and sophisticated analytics to improve the outcomes of care. The Institute also operates the RI Regional Extension Center, which provides hands-on assistance to providers as they adopt Electronic Health Records (EHR) and new care delivery models and meet Meaningful Use standards to qualify for substantial federal incentives.

**The Rhode Island Public Health Institute’s (RIPHI) mission** is to promote community health and to eliminate health disparities in Rhode Island and beyond. RIPHI partners with Brown University and the Rhode Island Department of Health to develop innovative public health programs, conduct translational and policy research, and train students and public health practitioners. RIPHI’s work is grounded in five key activities that advance public health and draw on the core competencies of Brown University and the Rhode Island Department of Public Health.

1. Public Health Programs and Community Service: Improving public health requires outreach to communities that have limited access to health services and those most heavily impacted by preventable and treatable
diseases. RIPHI sponsors high-impact public health programs in community and clinical settings with a focus on community services and translating research into practice.

2. Community Engagement in Programs and Research: RIPHI is committed to engaging local stakeholders in dialogue about improving public health in their communities. We work with policymakers, scholars, activists, and community residents to engage communities in our programmatic and research activities.

3. Educational Training in Public Health: RIPHI provides community service and educational opportunities for students, professionals, and community members. RIPHI offers training for students and public health professionals in didactic and community settings, with a focus on public health and community service.

4. Translational Research: RIPHI’s research is diverse in scope and focuses on translating research into practice, reducing disparities, and promoting health equity. Much of our research focuses on evaluating the programs we develop to advance our goal of promoting public health.

5. Public Policy and Dissemination of Best Public Health Practices: Improving public health requires policy change. We make every effort to ensure that our research and programs have maximum impact on public policy. Policymakers are involved from the onset of each of our projects and throughout their duration. RIPHI makes every effort to disseminate lessons learned from our work in peer-reviewed articles, policy memos, community forums, and in the popular media.

Rhode Island Consortium for Autism Research and Treatment (RI-CART) brings together Rhode Island families and individuals affected by Autism Spectrum Disorder (ASD) and related neurodevelopmental disorders with researchers, clinicians and educators — to improve life for people on the autism spectrum. RI-CART is a joint initiative of Bradley Hospital, Rhode Island Hospital, Women & Infants Hospital and Brown University. RI-CART is accelerating and advancing research by connecting participants with cutting-edge research – helping to ensure that individuals across the spectrum are represented in studies. Through the RI-CART network, we are bringing together multiple research disciplines to allow new, innovative research not before possible. Connecting and coming together as a community, we are able to help advance science while at the same time bringing a new voice to the thousands of Rhode Islanders affected by ASD.

Rhode Island Neuroscience Consortium: Five of the state’s leading neuroscience research institutions have joined forces in an unprecedented collaboration they hope will bring significant advances in the understanding and treatment of such brain-centered disorders and diseases as autism, epilepsy, stroke, Alzheimer’s disease and traumatic brain injury. The five institutions include Lifespan’s Norman Prince Neurosciences Institute, the University of Rhode Island’s George and Anne Ryan Institute for Neuroscience, the Providence VA Medical Center’s Center of Excellence for Neurorestoration and Neurotechnology, Brown University’s Brown Institute for Brain Science, and Care New England’s psychiatry research division at Butler Hospital and its autism research unit at Women and Infants Hospital. Rhode Island is the only state in the U.S. to have such formal statewide neuroscience research collaboration.

NIH Institutional Development Award (IDeA) Program in Rhode Island. The IDeA Program builds research capacities in states that historically have had low levels of NIH funding by supporting basic, clinical and translational research; faculty development, and infrastructure improvements. Rhode Island qualifies as an IDeA state. Rhode Island’s actively funded IDeA programs include one IDeA Network for Excellence in Biomedical Research (INBRE) award, eight Centers of Biomedical Research Excellence (COBRE), and one Program Infrastructure for Clinical and Translational Research (IDeA-CTR).

The COBRE Program supports thematic, multidisciplinary centers that augment and strengthen institutional biomedical research capacity. This is accomplished by expanding and developing biomedical faculty research capability and enhancing research infrastructure, including the establishment of core facilities needed to carry out the objectives of a multidisciplinary, collaborative program. COBRE support comes in three sequential 5-year phases: Phase I focuses on developing research infrastructure and providing junior investigators with formal mentoring and research project funding to help them acquire preliminary data and successfully compete for independent research grant support; Phase II seeks to strengthen each center through further improvements in research infrastructure and continuing development and support of a critical mass of investigators with shared scientific interests, Phase III transitional centers provide support for maintaining COBRE research cores developed during Phases I and II, and sustain a collaborative, multidisciplinary research environment with pilot project programs and mentoring and training components. Another activity is the IDeA Program Infrastructure for Clinical and Translational Research (IDeA-CTR) initiative. The IDeA-CTR encourages consortium applications from IDeA states to develop regional
infrastructure and capacity to conduct clinical and translational research on diseases that affect medically underserved populations and/or diseases prevalent in IDeA states. IDeA-CTR awards support mentoring and career development activities in clinical and translational research and facilitate collaboration with clinical researchers in non-IDeA states.

1. P20GM104317- Phase 1 Immune-Based Interventions Against Infectious Diseases, PI Alan Rothman, University of Rhode Island
2. 1P20GM121298 - Phase 1 COBRE for Reproductive Health, PI Surendra Sharma, Women and Infants Hospital
3. P20GM103652- Phase 1 Endothelial Injury and Repair: Cardiopulmonary Vascular Biology COBRE, PI Sharon Rounds, Ocean State Research Institute
4. P20GM103645 - Phase 1 COBRE Center for Central Nervous System Function, PI: Jerome Sanes, Brown University
5. P20 GM109035 - Phase 1 COBRE: Center for Computational Biology of Human Disease, PI: David Rand, Brown University
6. P20GM119943 –Phase 2 COBRE for Stem Cells and Aging, PI: Peter Quesenberry, Rhode Island Hospital
7. P20GM104937- Phase 2 COBRE for Skeletal Health and Repair, PI Qian Chen, Rhode Island Hospital
8. P30GM110759- Phase 3 COBRE Center for Cancer Research Development, PI Bharat Ramratnam, Rhode Island Hospital
9. P30GM114750 - Phase 3 COBRE for Perinatal Biology, PI Sunil Shaw, Women and Infants Hospital - Rhode Island

The INBRE Program promotes the development, coordination and sharing of research resources and expertise that will expand the research opportunities and increase the number of competitive investigators in the IDeA-eligible states. INBRE grants are intended to enhance the caliber of scientific faculty at research institutions and undergraduate schools, thereby attracting more promising students to these organizations.

P20GM103430 Rhode Island Network for Excellence in Biomedical Research, PI Zahir Shaikh, University of Rhode Island, Kingston

The IDeA-CTR Program, provides support for forging partnerships and collaborations within and across IDeA states, the development of infrastructure and human resources required to conduct clinical and translational research in IDeA-eligible states, enhancing the ability of IDeA institutions and investigators to develop competitive clinical and translational research programs, and fostering and sustaining collaboration and coordination of clinical and translational activities within and across IDeA institutions and organizations.

U54GM115677 RI-Center for Clinical and Translational Science (Advance-CTR), PI James Padbury, Brown University

Core Research Facilities, Services and Instrumentation across Rhode Island: CoresRI.org: Rhode Island Universities, Colleges and academic medical centers across the state have worked together to develop the CoresRI.org website (www.CoresRI.org), a directory of core research facilities, services and instrumentation in Rhode Island. The website catalogues instruments (specific makes, models, and uses), services, locations, and contact personnel pertaining to each core or facility and provides a link to each facility’s detailed website. The site lists over 600 instruments or services located within 48 facilities at 13 institutions and 15 centers. The site is updated as needed and at least annually. Besides encouraging equipment sharing and reducing duplication of services, CoresRI.org fosters collaborations and enables investigators to better assess future shared equipment needs. The resources include facilities for generating stable isotopes, bioinformatics, computation and visualization, flow cytometry, environmental chemistry, genomics, sequencing, bioimaging, magnetic resonance imaging, marine science research, mass spectrometry, molecular biology and imaging, molecular characterization, molecular pathology, mouse transgenic and gene targeting, multiplex assays, nuclear magnetic resonance, proteomics, plant research, biobanking, nuclear science, media preparation, rodent behavioral phenotyping, structural biology, tissue banking, and X-ray reconstruction of moving morphology. Investigators at all participating institutions have full access to the listed facilities, equipment, and expertise via CoresRI.org. The participating institutions include Brown University, Lifespan Health System, Care New England Health System, the Providence VA Medical Center, the University of Rhode Island, the State of Rhode Island, Rhode Island School of Design, Bryant University, Rhode Island College, Providence College, Roger Williams University, Salve Regina University and the