Purpose
This glossary of RMATRIX terms was created to synchronize RMATRIX terminology in future correspondence, reporting, web postings and grant renewal materials related to health disparities research at the University of Hawaii.¹

Collaborations and Partnerships:
Collaboration is typically formed at the individual level for the purpose of implementing grant-funded programs and is viewed as a necessary component for sustainability of interdisciplinary or interagency programs [Perkins, T (May 2002). Comprehensive community initiatives (CCI): A comparison of community implementation plans. University of Nebraska Public Policy Center, Lincoln, NE; http://ppc.unl.edu/reports_publications/csipcommunity_comparison.pdf]. The RMATRIX grant supports the definition of collaboration as two or more individuals working together toward a shared goal [Frey, B. B., Lohmeier, J. H., Lee, S.W., & Tollefson, N. (2006). Measuring collaboration among grant partners. American Journal of Evaluation, 27(3), 383-392], adding that collaborations are viewed as “informal” rather than formal. This includes informal inter- and intra-collaboration between researchers from various disciplines, departments, or units within an institution or from other institutions.

Building on the collaboration definition above, for purposes of the RMATRIX grant, a partnership typically occurs at the institutional level and can be defined as a “formal” partnership with two or more institutions, organizations, or agencies (academic and non-academic organizations) working together toward a shared goal. Examples of a “formal” partnership include a developed Memorandum of Understanding or Agreement, contract or other agreement between institutions, organizations, or agencies.

Community Engaged Research (CEnR):
CEnR describes a continuum that reflects the level of involvement of citizen community members, or representatives of grass-roots community populations, in the research. The continuum of involvement ranges from less community involvement (e.g. community consent) to complete involvement (e.g. shared leadership in all phases of research), including community-based participatory research. Many research activities between academic institutions and communities exhibit variable degrees of community participation and engagement with variability in the roles performed by the stakeholders. Often the particulars of project goals and design dictate different degrees of engagement, and thus, CEnR in the health sciences refers to all research that embraces collaboration among stakeholders whose common goal is to improve health (CTSA Community

¹ These terms supersede any prior correspondence related to RMATRIX terms or focus.
Engagement Committees, 2009). RMATRIX resource support through KFs is given to investigators advancing “community engaged research”.

Community-Based Participatory Research (CBPR):
CBPR is a well known framework on the CEnR continuum. It views the academic researcher and community research partners as equal partners in all phases of research as outlined by Israel B, et al. [Review of community-based research: Assessing partnership approaches to improve public health. Annual Review of Public Health, 1998(19): 173-202]. Clinical translational research is built upon active involvement of the Priority Population in the design, execution and dissemination of research results. As the RMATRIX focus is upon growing and supporting the breadth of the community of health disparities investigators, some investigators will embrace the CBPR model while other investigators will elect some alternative form of CEnR. The RMATRIX leadership and KF leaders do not drive the actual implementation of CBPR or other forms of CEnR, but rather provide tools that will enhance the building of relationships and sustaining mutually beneficial partnerships with our Priority Populations.

Cultural and Linguistic Competency:
Cultural and linguistic competence is a set of congruent behaviors, attitudes, and policies that come together in a system, agency, or among professionals that enables effective work in cross cultural situations as defined by the DHHS Office of Minority Health. Here “culture” refers to integrated patterns of human behavior that include the language, thoughts, communications, actions, customs, beliefs, values, and institutions of racial, ethnic, religious or social groups. Here “competence” implies having the capacity to function effectively as an individual and an organization within the context of the cultural beliefs, behaviors, and needs presented by consumers and their communities.

Health Disparate Population (Priority Populations):
A health disparate population is defined as particular population having significantly higher rates of disease incidence, prevalence, morbidity, or mortality than the general population as indicated in U.S. Public Law 106-525. Health disparate populations could include a population based on race/ethnicity, socio-economic status (SES), generational status (e.g., older adults), or geographical location (e.g., rural areas).

RMATRIX resource priority is provided to health disparity studies that address Native Hawaiians, especially those living on or seeking care on the island of Oahu. Pacific Islanders (e.g., Samoan, Tongan, Chukese, and Marshallese) share many of the same adverse health outcomes as Native Hawaiians and thus serve as a secondary population priority. Additionally, because health disparities among Filipinos more closely resemble those of Native Hawaiians than Asians, we have included Filipinos in the Other Pacific Islander population. This grouping is consistent with approach taken by the Center for Native and Pacific Health Disparities Research (CNPHDR) at the University of Hawaii. Other health disparate populations are incorporated within RMATRIX projects where they strengthen
the science of the project or where they foster development of health disparities infrastructure and partnerships that will benefit the Priority Populations in subsequent studies.

**HEALTH Initiatives:**
Initially, six HEALTH (Health Equity and Lifestyle Transformation in Hawaii) initiatives were identified: cardiovascular health, respiratory health, cancer, neurocognitive & aging, nutrition & metabolic health and perinatal, growth, & developmental health to address health disparities. A shortened three year grant award (09/16/2010 – 06/30/2013) required that resource priority be given to projects with an emphasis on two health initiatives: 1) Perinatal, Growth, & Developmental Health or 2) Nutritional & Metabolic Health. Resource priority is given to projects and investigators based at UH-Manoa and the community partners of these academic/clinical units. Given the importance of reaching out to investigators on the neighbor islands, a secondary priority is support of faculty members associated with the UH-Hilo School of Pharmacy.

It should be emphasized that the investigators must achieve a balance in this application of a specific health focus, as the broader goal of RMATRIX is to develop overall health disparities research infrastructure (including the training of scientists) at UH and not specifically to reduce health disparities in these two disease focus areas. Indeed, given the great need for health disparities researchers in Hawaii, collaboration and synergy across several disease focus areas is an essential strategy for developing a critical mass of investigators.

**Pilot Project Investigator:**
A Pilot Project Investigator is any individual who receives funding through the RMATRIX Collaboration Pilot Project Program. The RMATRIX Pilot Project Program is intended to provide institutional support to research investigators in the form of stipends, bridging funds, and career development funds in conjunction with funded programs. Grants are awarded from $25,000-$50,000 for one year.

**Priority Communities:**
In the process of translating basic scientific knowledge into health-focused innovations for the community and vice versa, there is a need to define both the community served overall, and the community served specifically by RMATRIX resources. Although the community ultimately served by health disparities research is the Priority Populations of the RMATRIX grant (specifically Native Hawaiians and Other Pacific Islanders including Filipinos on Oahu) and perhaps all citizens of Hawaii, given that a reduction in health disparities will benefit the health of Hawaii as a whole, the aim of the RMATRIX grant is to develop the infrastructure (support programs, education, people, and active research) needed to coordinate and sustain such an effort.

Hence, the community primarily served specifically by RMATRIX is the community of investigators who either are currently performing health disparities research in conjunction with the Priority Populations – whether within the Priority Population neighborhoods (e.g., CNPHDR), through hospital
and clinic partnerships, or via analysis of existing data sets and repository materials. A specific goal of RMATRIX is to develop a critical mass of health disparities scientists, mentors, and collaborators/partners in Hawaii across these venues. Many of the investigators are internal to UH and affiliated with other infrastructure grants (e.g., BRIDGES, INBRE, COBREs, SNRP, etc.) or represent (external to UH) community hospital or community health center based investigators. It is this diverse, but similarly committed community of investigators to which RMATRIX resources are applied.

**Translational Science:**

Translational research fosters the multidirectional integration of basic research, patient-oriented research, and population-based research, with the long-term aim of improving the health of the public. As summarized by Kon (The Clinical and Translation Science Award (CTSA) Consortium and the Translational Research Model. Am J Bioeth. 2008; 8(3):58):

> First, basic science research must be translated to humans (the so-called T1 translation), and then secondarily translated into clinical practice (T2 translation) (http://nihroadmap.nih.gov/). Further work has demonstrated that in fact this second phase of translation includes two separate steps, first knowledge from T1 translational studies must be translated to patients (T2), and then we must translate our knowledge into actual clinical practice (T3 translation) (Westfall et al. 2007).... Merely translating findings to the actual bedside, however, is not enough. Moving scientific knowledge into the public sector and thereby changing people’s everyday lives represents a major challenge (T4).

Thus, translational research is the process by which research findings are moved from the scientist’s bench to the patient’s bedside and on into community. Translational research is bidirectional in that observations in the community and at the bedside also inform the scientist at the bench and in the clinic. Under this paradigm, T1 research, including phase 1 and 2 clinical trials, translates basic science research knowledge to humans. T2 research translates knowledge gained from observational and phase 3 clinical trials to patients, and T3 research extends this knowledge into actual clinical practice. T4 translation is particularly relevant for knowledge that needs to be disseminated and applied to the general population. For example, interventions that reduce smoking and obesity rates may be effectively integrated into clinical practice through T3 research, but may dramatically improve public health when translated more broadly to the community through T4 research often involving the social sciences.

The RMATRIX grant interfaces with other infrastructure grants to facilitate translational research at UH and into the community. RMATRIX enhances T1 translational research by support of basic science investigators affiliated with BRIDGES, INBRE, COBREs, SNRP, etc. as they interface with clinical researchers (e.g., pilot project support, mentoring, and KF services to facilitate clinical research). RMATRIX enhances T2/T3 translational research by mentoring/educating clinical researchers and by providing KF services to investigators working with RMATRIX priority populations on health disparities
translational research (e.g., CNPHDR and community health centers). RMATRIX enhances T4 translational research by working with population scientists and supporting grass-roots investigator infrastructure needs, especially by those investigators directly working with the RMATRIX priority populations on health disparities translational research.
Acronyms:

BRIDGES = (G12) Bioscience Research Infrastructure Development for Grant Enhancement and Success
CEnR = Community engaged research
CBPR = Community based participatory research
COBRE = (P20) Center of Biomedical Research Excellence [3 COBRE units at UH-Manoa]
CPNHDR = (P20) Center for Pacific & Native Health Disparities Research
HiBR = Hawaii Biospecimen Repository
INBRE = (P20) IDeA Network for Biomedical Research Excellence
KF = Key Functions
RMATRIX = (U54) RCMI Multidisciplinary And Translational Research Infrastructure eXpansion
SNRP = (U54) Specialized Neuroscience Research Program
UH = University of Hawaii
UH – Hilo = University of Hawaii at Hilo
UH – Manoa = University of Hawaii at Manoa