## **BIOGRAPHICAL SKETCH**

Provide the following information for the Senior/key personnel and other significant contributors. Follow this format for each person. **DO NOT EXCEED FIVE PAGES.** 

NAME: Ross, Angela Marie DNP, MPH, RN, PHCNS-BC, FHIMSS, PMP, DASM, LTC (ret) AN

# eRA COMMONS USER NAME (credential, e.g., agency login): AMROSS1

## POSITION TITLE: Associate Professor

EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable. Add/delete rows as necessary.)

INSTITUTION AND LOCATION	DEGREE (if applicable)	Completion Date MM/YYYY	FIELD OF STUDY
Dillard University, New Orleans, LA	BS	05/1983	Nursing
Tulane University, New Orleans, LA	MPH	07/1990	Public Health
University of Maryland at Baltimore, Baltimore, MD	MS	01/1998	Nursing Informatics
Villanova University, Villanova, PA	Graduate Certificate	12/2008	IS/IT Project Management
University of Maryland at Baltimore, Baltimore, MD	DNP	12/2014	Nursing Informatics, Executive Leadership

## A. Personal Statement

With my background in nursing, public health, health informatics, leadership, and education, along with my solid motivation to contribute. I am well-equipped to be a Co-Investigator and part of the proposed research team. Currently, I hold positions as the Program Director of the Doctorate in Health Informatics Program and assistant professor at UTHealth McWilliams School of Biomedical Informatics in Houston, TX, and as an assistant professor at both UTHealth Rio Grande Valley School (UTRGV) of Medicine in Brownsville, TX, and UTHealth School of Public Health at the Brownsville Texas Campus. My experience includes roles as a senior executive, chief medical information officer (CMIO), project manager at the Defense Health Agency (DHA), and Chief Public Health Nurse of the US Army Medical Department. As an informatics consultant and project manager, I have spearheaded the adoption, integration, and management of clinical information technologies to enhance care delivery, support clients, and bolster clinical decision-making for over 30 medical treatment facilities. As a Chief Public Health Nurse, I led a team of 10 nurses and support staff to develop a home visit program for first-time mothers. This program aimed to guickly detect potential health risks, such as peripartum depression, providing vital support to these new mothers. Our efforts centered on linking them with various health and community resources, enhancing their well-being and overall outcomes. My academic role as an assistant professor involves guiding students to recognize the practical importance of informatics and public health. My teaching is deeply rooted in the principles of interprofessional collaboration, teamwork, and effective communication.

My project interests encompass public health, process improvement, project management, system implementation, evaluation, workflow analysis, and workforce development. I hold the following certifications from the Project Management Institute and the American Nurses Credentialing Center: Project Management, Discipline Agile Scrum Master, and Public Health Clinical Nurse Specialist. Committed to staying relevant as a clinician and community supporter, I actively volunteer for various healthcare and community organizations. This volunteering keeps me abreast of changes in the healthcare field and contributes significantly to enhancing patient care and services, particularly in underserved areas. My volunteer work includes

contributions to Houston Methodist, Oncology Consultants Houston, and Healthcare for the Homeless – Houston (HHH).

# B. Positions and Honors

2024-Present	UTHealth McWilliams School of Biomedical Informatics	Director, Doctorate-Health Informatics Program	Houston, TX
2019=Present	UTHealth Rio Grande Valley School of Medicine	Assistant Professor	Brownville, TX
2017–Present	UTHealth School of Public Health Brownsville Campus	Public Health and Quality Improvement Consultant	Houston, TX
2015-Present	UTHealth McWilliams School of Biomedical Informatics	Assistant Professor	Brownville, TX
2012-2015	Defense Health Agency	Chief Medical Information Officer	San Antonio, TX
2010-2015	UTHealth School of Nursing	Assistant Clinical Professor	San Antonio, TX
2009-2012	Defense Health Agency	Nurse Consultant/Project Manager	San Antonio, TX
2008-2009	Core Business Solutions	Project Manager	San Antonio, TX
2007-2008	IMS Government Solutions	Project Manager	San Antonio, TX
2005-2007 1983-2005	US Army Medical Command Military Service, US Army Medical Command US Army Nurse Corps	Patient Safety Nurse Consultant Specialties: Public Health, Intensive Care, Dialysis, Biomedical Informatics (Retired with Honorable Discharge at the rank of LTC)	San Antonio, TX Various Military Locations

# **Other Experience and Professional Memberships**

Licensure: 2017	Registered Nurse, Texas
<b>Training:</b> 2016 – 2017	Health Educators Fellowship Program (HEFP), UTHealth, McGovern Medical School,
2006 – 2016	Houston, Texas TeamSTEPPS® Master Trainer, US Department of Health and Human Services, Agency for Healthcare Research and Quality
2007	Root Cause Analysis, TapRooT® Team Leader
Fellowship: 2022 – Present	Fellow Healthcare Information and Management Systems Society
<b>Certification:</b> 2021 – Present	Project Management Institute, Disciplined Agile® Scrum Master (DASM)

2009 – Present	Project Management Institute, Project Management Professional (PMP)
	American Nursing Association, ANCC Public Health Clinical Nurse Specialist

#### Membership:

2014 – Present American Nurses Association 2011 – Present Sigma Theta Tau International Honor Society 2011 – Present DoD Acquisition Career Field (Information Technology) Level 2009 – Present Project Management Professional, National, and Alamo Chapter 2009 – Present Healthcare Information and Management Systems Society 2009 – Present American Medical Informatics Association 2000 – Present American Public Health Association (APHA), Health Informatics Information SIG 2000 – Present APHA

#### Military Honors (1983 – 2005)

Department of the Army Meritorious Service Medal (received six times) Department of the Army Commendation Medal (received four times) Department of the Army Achievement Medal (received twice) National Defense Service Medal (received twice) Department of Army Armed Forces Reserve Medal Department of the Army Service Ribbon Global War on Terrorism Service Medal

#### Academic Awards and Honors

John P. McGovern UTH School of Biomedical Informatics Teacher of the Year (2018) Healthcare for the Homeless – Houston Volunteer of the Year (2018)

## **Clinical Experience**

I joined UTHealth in 2015, committed to enhancing translational science. My role primarily involves educating students and professionals on effective application research within intricate organizational structures, aiming to boost health outcomes in healthcare settings and the broader community. My contributions extend to consulting with multifaceted health organizations, in which I focus on areas such as public health, informatics, process improvement, project management, workflow analysis, evaluation, and workforce development. Over the years, I have provided consultation services to several organizations and have guided both master's and doctoral students in their biomedical informatics and public health studies:

2017 – Present	UTHealth, School of Public Health, Brownsville, TX, Public Health and Project
	Management, Delivery System Reform Incentive Payment
2017 – Present	Oncology Consultants, Workflow Analysis Houston, TX
2017 – Present	Methodist Hospital, Clinical Operations, Houston, TX
2016 – Present	Healthcare for the Homeless – Houston, Clinical Operations, Houston, TX
2016 – 2020	Doctor Hospital at Renaissance, Tumor Registry, Edinburg, TX
2016 – 2020	Memorial Hermann, Director of Nursing Operation Office, Houston, TX

I have served as a consultant for the following clinical projects:

- 1. Healthcare for the Homeless Houston, CEO Clinical Operations, Houston, TX, Projects: Workflow analysis, care coordination, cycle times, patient center medical home
- UTHealth School of Public Health (Brownsville, TX, Campus), Houston, TX Projects: Salud y Vida Diabetic Management Program, program evaluation of community health workers (Promotoras) that conduct home visits administering PHQ-9 (a patient health questionnaire that employs the nine-item depression scale)

 Methodist Hospital, Houston, TX. Projects: Medical device integration, cardiac monitoring, patient engagement, virtual ICU

# C. Contributions to Science

- As a chief medical information officer (CMIO) and project manager, I provided expertise to over 30 Department of Defense (DoD) hospitals. My primary role involved assessing and implementing patient care technologies, such as electronic health records (EHRs) and various administrative systems, in 15 hospitals. As the project manager responsible for EHR implementation in nine hospitals, I ensured those projects were completed on time, stayed within budget, and achieved all set goals, positively impacting healthcare institutions within the US Army and the US Air Force.
- 2. As part of the Army Medical Command Workforce Development Task Force, I worked collaboratively with a team of CMIOs whose mission was to ensure that our workforce was proficient and competent, particularly in upholding the core values of quality, clinical business intelligence, business process management, and training. We focused on informatics competencies, deployment, and training for EHRs. Our CMIO team was dedicated to the development and standardization of curricula, as well as to strategizing and integrating clinical information system deployments. I was responsible for recruiting and overseeing a team of 15 health information technology trainers. These trainers were deployed globally and tasked with educating and training approximately 100,000 Army medical professionals. I showcased our task force's workforce development training program at the 2016 Nursing Informatics International Congress in Geneva, Switzerland.
- 3. With a solid background of 20 years in the US Army Nurse Corps as a public health nurse, I played a vital role in the planning, development, and successful execution of over 20 substantial public health and community projects. As the Chief Public Health Nurse in the US Army Medical Command, I was responsible for shaping policies that guided public health nursing practices within the Army Medical Department. I ensure that my skills remain relevant and that my Clinical Nurse Specialist in Public Health certification is current by volunteering and mentoring graduate informatics students at Healthcare for the Homeless Houston.
- 4. My research is centered on translational science, which facilitates the application of academic research findings to real-world settings. I specialize in evaluation, process improvement, implementation, and workforce development. My work involves navigating complex organizations to apply scientific principles effectively and discovering methods to utilize these principles to enhance outcomes. My expertise is geared toward increasing the adoption of best practices within communities by translating research into practical applications in practice settings and community environments. I focus on enhancing patient care by improving processes, managing projects, evaluating systems, implementing new workflows, and developing the workforce. A crucial part of my role involves identifying and addressing emerging issues through evaluation, determining requirements, and conducting workflow and systems analysis. One of my primary goals is to implement efficient and effective systems that improve patient outcomes and clinical decision-making and increase staff satisfaction, thereby playing a pivotal role in healthcare transformation to increase community engagement between academic partners and community partners in these organizations.
- 5. I am a co-investigator for the Texas Center for Clinical and Translational Sciences (CTSA) and serve on two of the nine components of the CTSA grant. I am the evaluation lead and co-investigator for the community engagement evaluation components. As co-investigator for community engagement, I led a team to plan and develop an evaluation method for four programs led by ten co-investigators from UTHealth Houston, UTHealth Tyler, and the University of Texas MD Anderson Cancer Center and five research coordinators. I contributed to each program by coordinating with principal investigators and research coordinators to develop evaluation processes, workflows, and metrics to assess and document the aims and outcomes of each specific program. I researched evidence-based practice models and implementation frameworks, validated tools, developed surveys, and conducted qualitative

interviews. We utilized software such as REDCap, ATLAS.ti, SAS, and Power BI to assess, analyze, and visualize outcome data. I had the opportunity to embody my service value by actively engaging with the community and contributing to evaluating crucial public health initiatives. I led the creation, modification, and development of seven surveys for the Community Scientist Program, four surveys for the Solutions in Actions Workshop, one for the Translational Science Expert Panel, and three for the Community Health Initiated Research Partnership (CHIRP) Awards.

- 6. The publications I have contributed to are listed below.
  - Ross, A., Freeman, R., McGrow, K. & Kagan, O. Implications of artificial intelligence for nurse managers. Nursing Management (Springhouse) 55(7): p 14-23, July 2024. https://doi.org/10.1097/nmg.00000000000143. PMID: 37994577
  - Ross, A., McGrow, K., Zhi, D., & Rasmy, L. (2024). Foundation models, generative AI, and large language models: Essentials for nursing. CIN: Computers, Informatics, Nursing, 42(5), 377-387. <u>https://doi.org/10.1097/CIN.00000000001149</u>.
  - Wang, Y., Zhao, W., Ross, A., You, L., Wang, H., & Zhou, X. (2024). Revealing chronic disease progression patterns using Gaussian process for stage inference. Journal of the American Medical Informatics Association: JAMIA, 31(2), 396–405. <u>https://doi.org/10.1093/jamia/ocad230</u>. PMID: 38055638; PMCID: PMC10797260.
  - Zingg, A., Singh, T., Franklin, A., Ross, A., Selvaraj, S., Refuerzo, J., & Myneni, S. (2023). Digital health technologies for peripartum depression management among low-socioeconomic populations: perspectives from patients, providers, and social media channels. BMC pregnancy and childbirth, 23(1), 411. <u>https://doi.org/10.1186/s12884-023-05729-9</u>. PMID: 37270494; PMCID: PMC10239590.
  - Alvarado, J., Strong, L. L., Buzcu-Guven, B., Thompson, L. B., Cantu, E., Carrier, C. C., Chukwu, C. D., Harris, C. L., Melendez, L. K., Roberson, C. L., Ross, A. M., Russell, S. C., Sanchez, P., Tahanan, A., Zdenek, B. C., Reininger, B. M., & McNeill, L. H. (2023). Community scientist program provides bi-directional communication and co-learning between researchers and community members. Journal of Clinical and Translational Science, 8(1), e18. https://doi.org/10.1017/cts.2023.703. PMID: 38384927; PMCID: PMC10879996
  - Rasmy, L., Nigo, M., Kannadath, B. S., Xie, Z., Mao, B., Patel, K., Zhou, Y., Zhang, W., Ross, A., Xu, H., & Zhi, D. (2022). Recurrent neural network models (CovRNN) for predicting outcomes of patients with COVID-19 on admission to hospital: model development and validation using electronic health record data. The Lancet. Digital health, 4(6), e415–e425. https://doi.org/10.1016/S2589-7500(22)00049-8. PMID: 35466079; PMCID: PMC9023005.
  - 7. McBride, S., Maker, E. V., Ross, A. M., Ross, D., & Elkind, E. C. (2021). Determining awareness of the SAFER guides among nurse informaticists. Journal of Informatics Nursing, 6(4), 6-13.
  - Fenton, S. H., Ross, A., & Simmons, D. (2019). Training leaders in health informatics. Studies in Health Technology and Informatics, 264, 1184-1188. <u>https://doi.org/10.3233/SHTI190413</u>. PMID: 31438112.
  - Ross, A., Feider, L., Nahm, E. S., & Staggers, N. (2017). An outpatient performance improvement project: A baseline assessment of adherence to pain reassessment standards. Military Medicine, 182(5), e1688-e1695. <u>https://doi.org/10.7205/MILMED-D-16-00104.</u> PMID: 29087912.