

Comprehensive Hereditary Cancer Genetic Care in Community Setting: A Nurse Practitioner Led Implementation

Maria Victoria Yoes, DNP, MSN, CCRN, APRN, FNP-C

Introduction

The demand for hereditary cancer genetic risk assessment, testing, and counseling is growing. One of the barriers to access comprehensive genetic care is that formally trained genetic professionals are in urban academic healthcare system. This poster discusses the project implementation of a comprehensive genetic care program in a community setting through an interprofessional approach led by a Nurse Practitioner.

Background

- Hereditary cancer gene constitute approximately 5-10% of all cancers (National Cancer Institute [NHI], n.d.).
- The American Association of Clinical Oncology (ASCO) recommends pre and post-genetic counseling (Robson et al., 2015).
- Ideally, certified genetic counselors (CGC) provide genetic risk evaluation, testing, and counseling. However, as of early 2018, there were only an estimated 7,000 genetic counselors globally, with 4,400 practicing in North America (Ormond et al., 2018).
- The shortage of CGCs does not meet the growing demand for hereditary cancer genetic risk assessment, testing, and counseling.

Problem

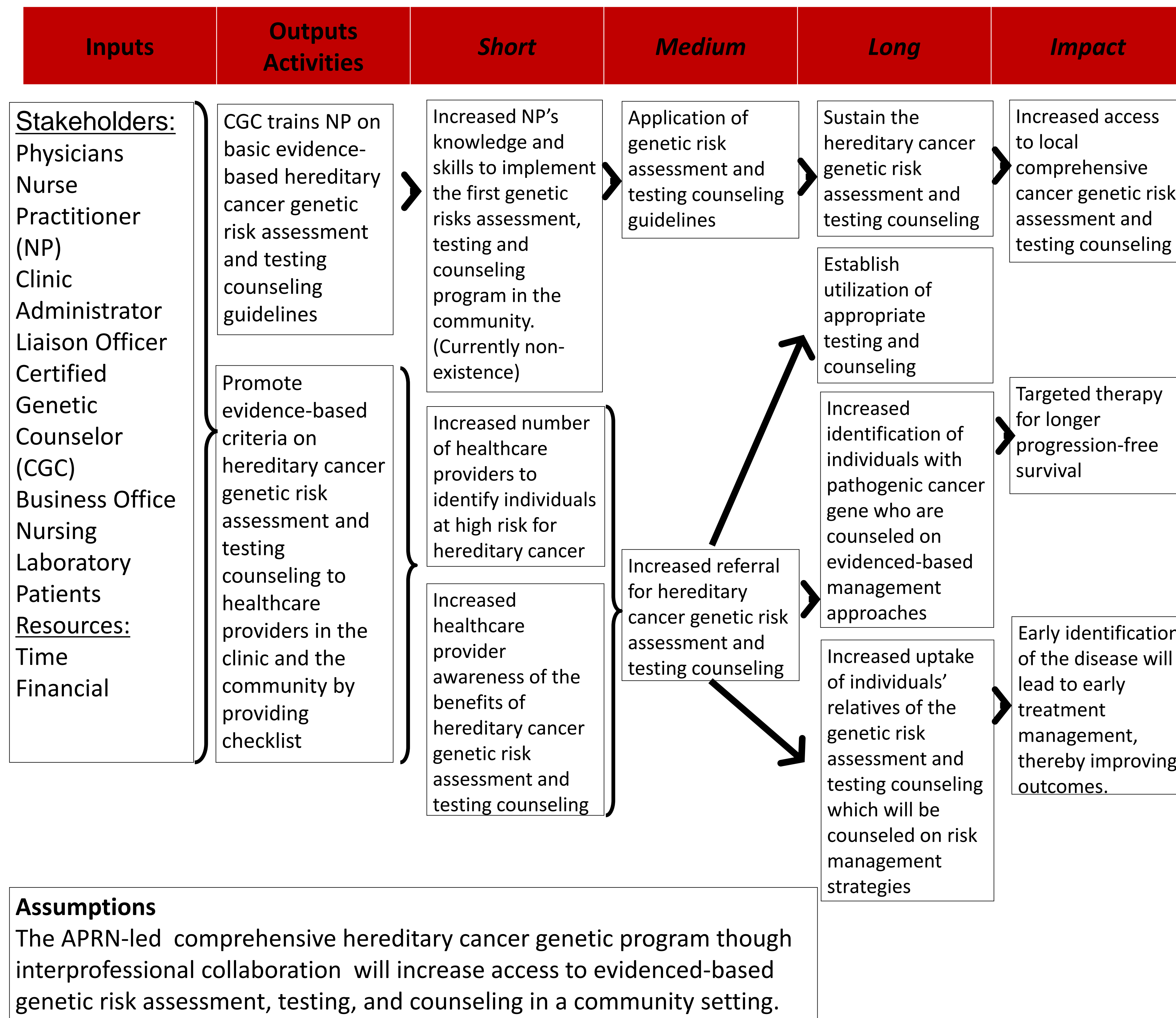
In this area of West Texas, there is no cancer CGC or clinically trained genetic Nurse Practitioner (NP) thereby limiting the access of individuals in this area to evaluation of cancer susceptibility or precision cancer treatment.

Purpose of the Project

The purpose of the project was to implement an NP led hereditary cancer genetic risk assessment, testing, and counseling program guided by the logic model (Millar et al., 2001). Advanced Practice Nurses Registered Nurses (APRN) play a vital role in implementing cancer risk assessment and promoting prevention and early detection of cancer for patients and their families (Mahon, 2015). NPs can have a significant impact on providing comprehensive genetic care to the growing demand for genetic counseling before genetic testing (Stenehjem et al., 2018), particularly in rural communities. Cohen et al. (2019), stated that "it is necessary to improve access to genetic counseling and testing in all communities, including those underserved due to economic, social, or geographical status."

Project Implementation: Logic Model Application

Program: Hereditary Cancer Genetic Risk Assessment and Testing Program Logic Model
Situation: Lack of access to hereditary cancer genetic risk assessment, testing, and counseling



Project Evaluation

Statistical Data

- 89 individuals (sample size) had a genetic pre-counseling visit with the APRN
- 84 individuals (94.4%) consented to proceed with genetic testing after the pre-counseling session.
- 20 individuals (23.8%) were positive for a pathogenic mutation

Patient Satisfaction

- "How satisfied are you with your genetic risk evaluation and testing visit?" - 4-point Likert scale of very satisfied, satisfied, unsatisfied, very unsatisfied.
- Twenty-four responses (26.96%)
 - Eighteen (75%) of the respondents were very satisfied
 - Three (12.5%) were satisfied.
 - Two respondents (8.3%) were unsatisfied
 - One (4.1%) was very unsatisfied

Discussion

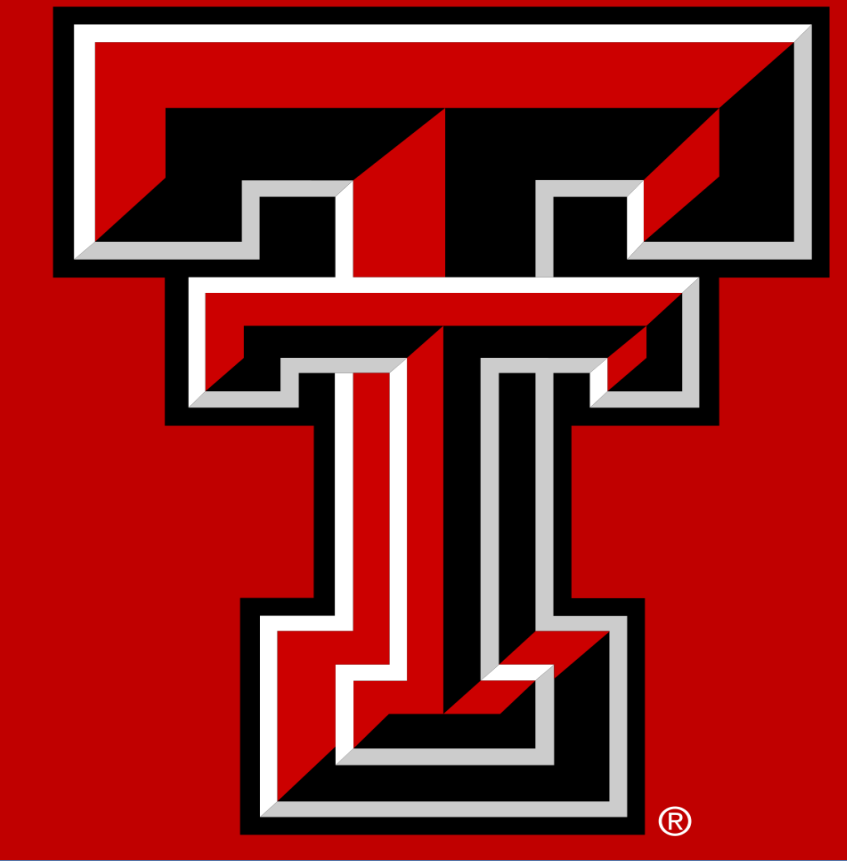
The program demonstrated a successful implementation of the genetic risk assessment, testing, and counseling service in a community setting with a consent rate of 94.4%. Most individuals who consented to have the genetic testing expressed their satisfaction (88%) with their visit with the NP. The satisfaction rate of the program may be inferred to the NP's competency in delivering hereditary cancer risk assessment. The seventeen individuals identified with pathogenic hereditary cancer syndrome had a strong clinical impact as their oncologist planned their treatments based on the identified mutation.

Conclusion

Nurse Practitioners have a role in addressing the growing demand for hereditary cancer genetic care. The current trend of personalized medicine, providing the right treatment based on genetic mutation of the cancer, will inevitably drive the need for comprehensive genetic care. In collaboration with genetics-trained healthcare providers such as CGCs and geneticists, NPs can start a genetic risk assessment, testing, and counseling program in rural communities. The logic model delineated the step to bring about the desired outcome of the program.

References

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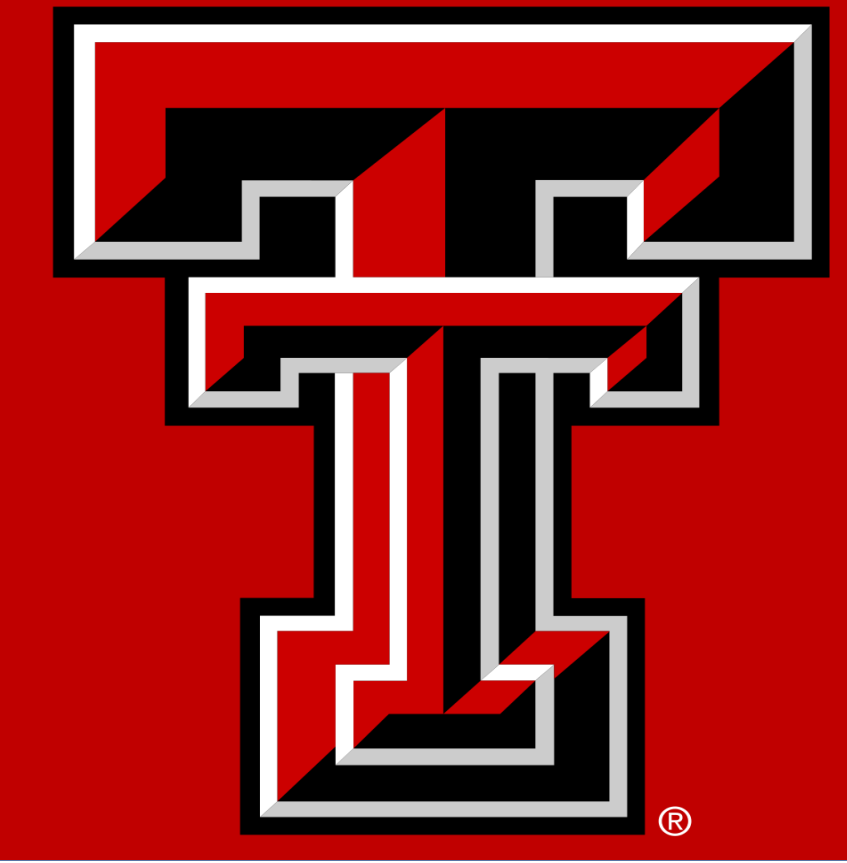


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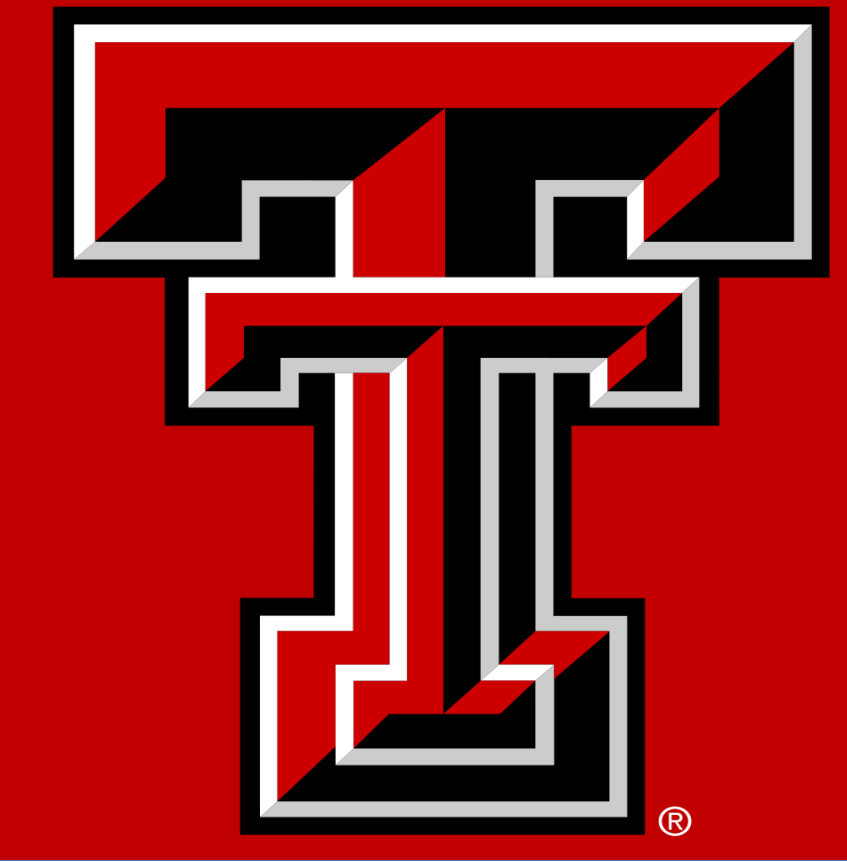


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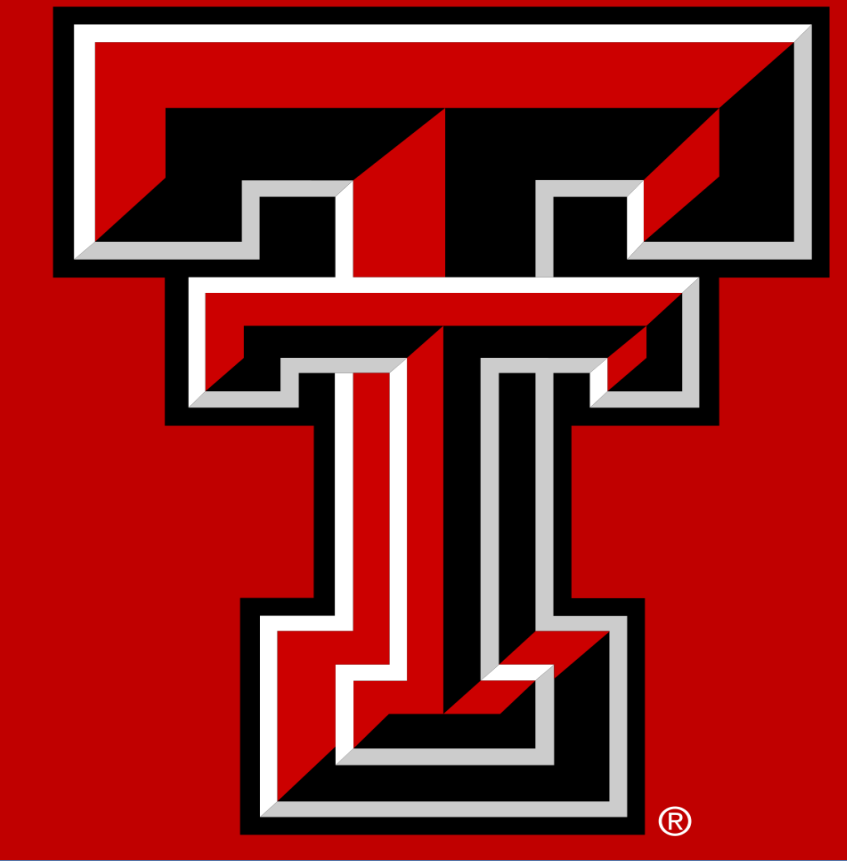


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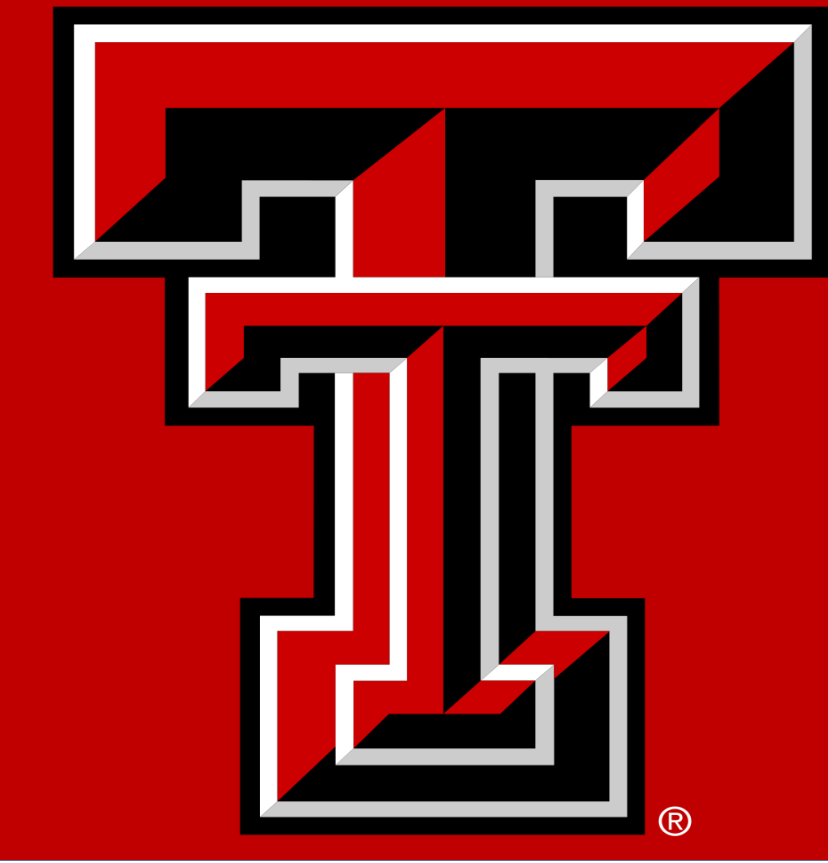


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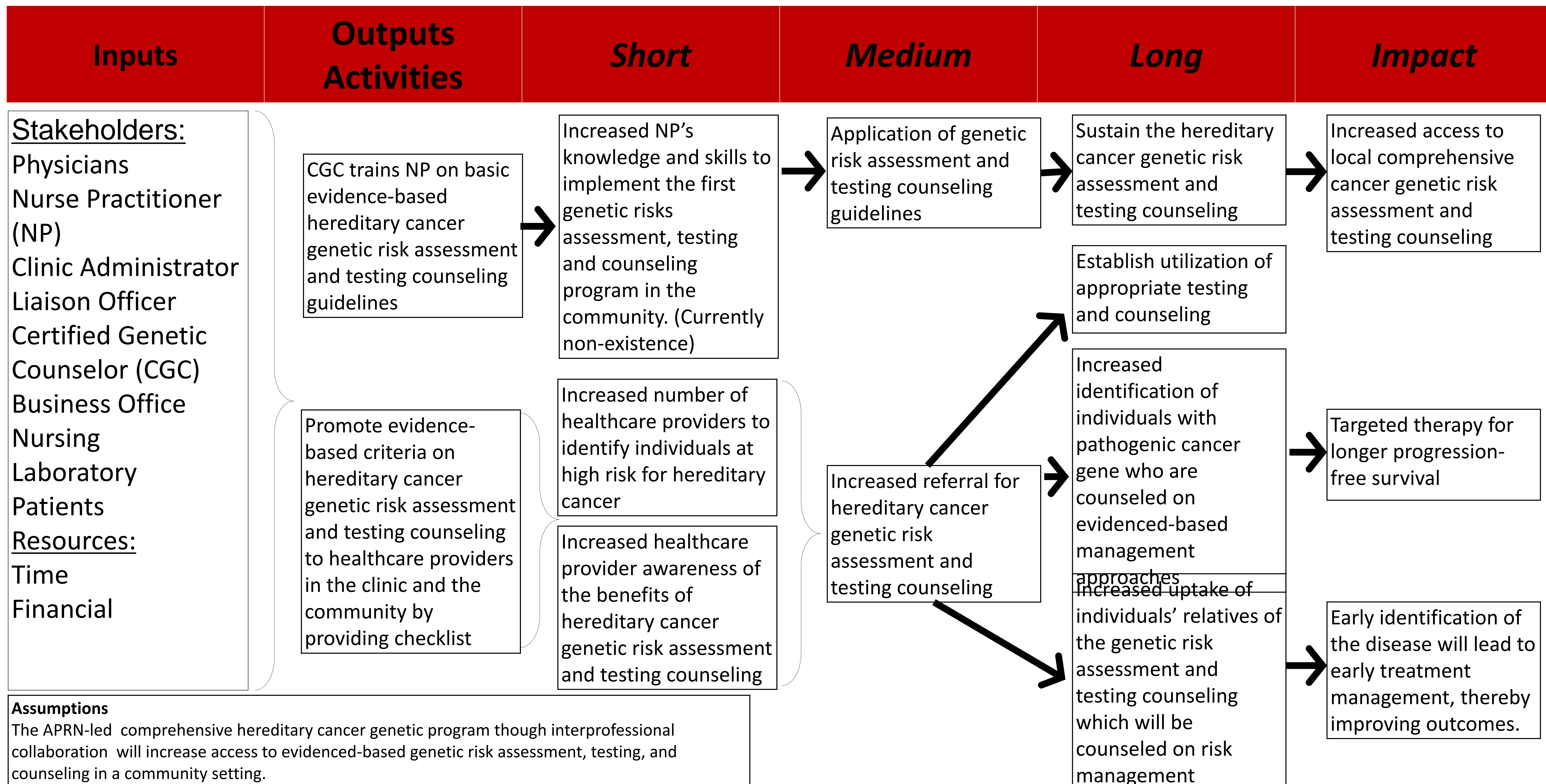
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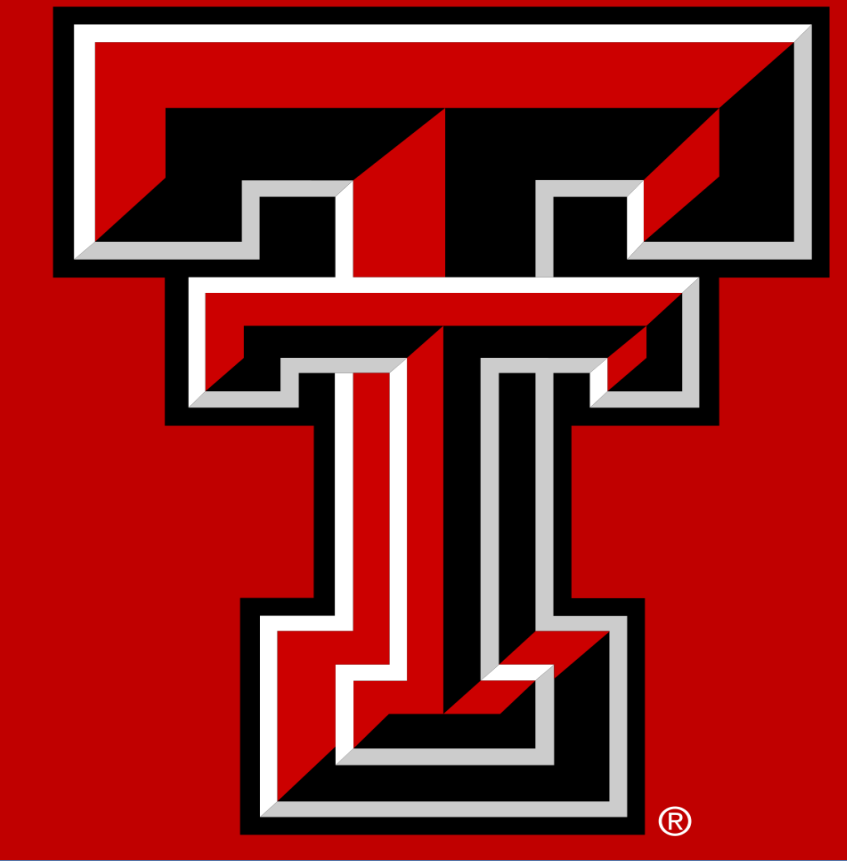
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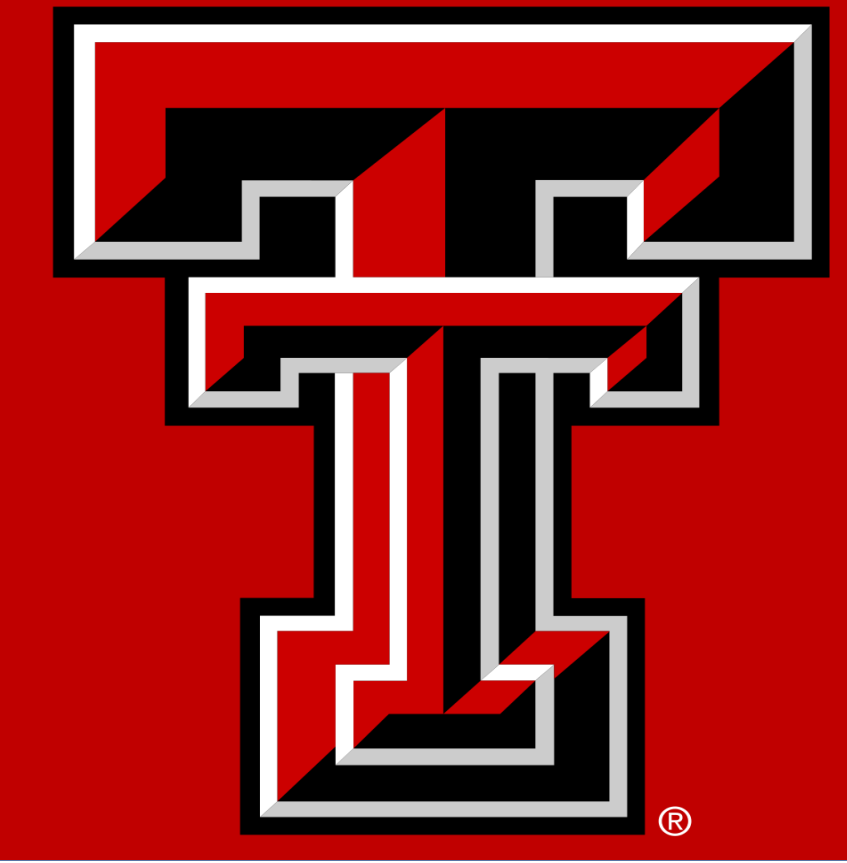
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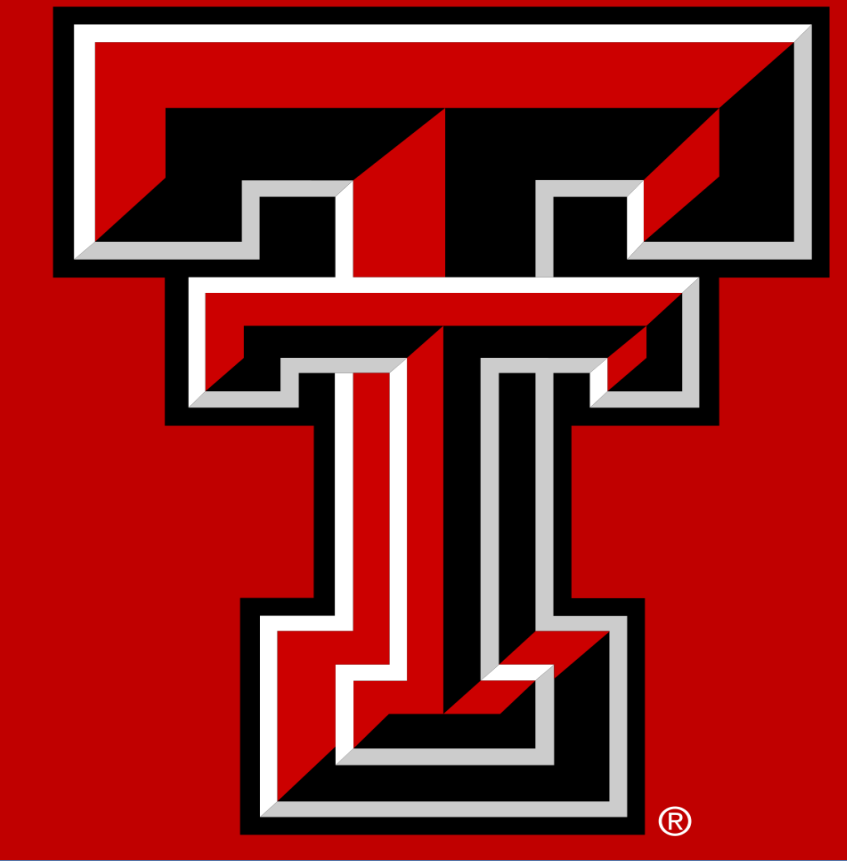
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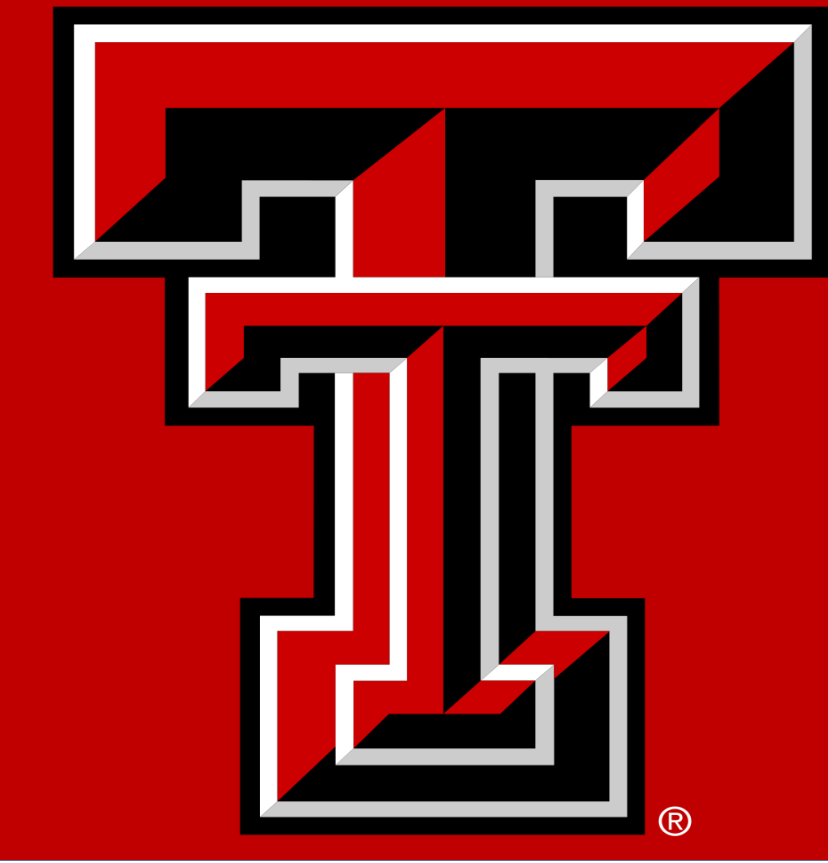


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