

LET'S TAKE A MOMENT & TRAVEL THROUGH TIME....

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Presented by: JENALL ROANE

As the times evolve I would like to say so do we.....

As a member of the Ledwith-Lewis Free Clinic in Tappahannock, I am proud to be part of a small but powerful force within our community. Living in a rural area presents unique challenges that can make our day-to-day tasks feel overwhelming. Among our patient population of roughly 300 individuals, nearly 87% speak a language other than English as their primary language. This reality significantly impacts communication, access to care, and overall patient experience.

Learning to grow with time we
have learned that one of our
biggest challenges is...



EFFECTIVE COMMUNICATION

CareConnect Companion: A Multilingual Communication Platform for Primary Care and Mental Health Visits

Effective communication in healthcare is essential for accurate diagnosis, patient safety, and positive patient provider relationships. However, language barriers continue to be a major challenge for both primary care and mental health services. Many patients rely on family members or inadequate translation resources, resulting in miscommunication, reduced care quality, and increased disparities.

CareConnect Companion is a multilingual digital platform designed to bridge communication gaps between patients and healthcare providers throughout the entire clinical experience before, during, and after appointments. The program provides culturally sensitive translations, simplified explanations, and AI-guided clinical prompts to improve understanding, reduce errors, and support mental-health communication where nuance is critical.

Healthcare organizations struggle to effectively serve patients with limited English proficiency (LEP). Current solutions such as phone interpreters or bilingual staff are costly, inconsistent, or unavailable. In mental health settings, where tone and nuance matter even more, standard translation tools often distort meaning or lose emotional context.

This gap leads to:

- **Misunderstanding of symptoms**
- **Incomplete medical histories**
- **Low adherence to treatment plans**
- **Increased appointment time and frustration**
- **Limited access to mental-health care**
- **Privacy concerns when family members interpret**



A scalable, affordable, and culturally responsive communication system is needed to support clinicians and empower diverse patient populations.

Purpose and Goals

The purpose of this project is to **design, develop, and evaluate** a multilingual communication platform that enhances patient-provider communication during primary care and mental-health visits.

Project Goals

1. **Improve clarity** of patient-reported symptoms and concerns.
2. **Increase access** for patients with limited English proficiency.
3. **Support mental-health communication** with sensitive, tone-aware prompts.
4. **Reduce reliance on live interpreters** for non-critical interactions.
5. **Enhance provider workflow** with structured, translated summaries.
6. **Promote patient engagement** through culturally informed educational materials.

Proposed Solution: CareConnect Companion

CareConnect Companion would be a mobile and tablet-based application with **three core components**:



A. Pre-Visit Multilingual Intake Assistant

B. In-Visit Communication Support

C. Post-Visit Care Translation



Three Core Components

Pre-Visit Multilingual Intake Assistant

Patients complete an AI-guided questionnaire in their preferred language.

Features include:

- Symptom checker
- Mental-health screening tools (PHQ-9, GAD-7, stress indicators)
- Medication and allergy review
- Guided prompts using images for low literacy
- Audio translation options

*The system generates an *English summary* for the provider before the appointment.

In-Visit Communication Support

During the appointment, clinicians can use the app to enhance dialogue.

Features include:

- Real-time text and voice translation
- Tone-aware mental-health translation
- Visual symptom charts (pain scale, body maps)
- Clarification prompts for providers
- Automatic culturally aware explanation suggestions

Post-Visit Care Translation

After the appointment, patients receive translated, simplified materials:

Features include:

- Visit summary
- Medication instructions
- Follow-up reminders
- Mental-health resources
- Safety plan translation (if relevant)

STEPS TO SUCCESS....

While we may wish for change to happen overnight, the reality is that a project of this scale demands time, dedication, and sustained effort. The phases outlined here represent the foundation for a solution that has the potential to transform the future of **FREE** and **CHARITABLE** clinics.

Phase 1: Requirements Gathering

Phase 2: Design

Phase 3: Development

Phase 4: Testing

Phase 5: Evaluation



Expected Outcomes

- Improved patient understanding of health information
 - Reduced provider frustration and appointment delays
 - Enhanced mental-health communication accuracy
 - Increased equity in healthcare delivery
 - A functioning prototype suitable for real-world pilot testing
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Conclusion / Q&A

CareConnect Companion aims to enhance healthcare communication by providing an accessible, culturally informed, and technologically advanced solution for overcoming language barriers. By improving the exchange of information during primary care and mental-health visits, this tool supports safer, more equitable, and more effective healthcare for diverse patient populations.

THANK YOU!

